

National Conference

on

**Interdisciplinary National Conference on Role
Of Physical Education and Other Disciplines in
Enhancing the Performance of a Player &
Fitness for Young and New India**

24th Dec. 2018

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Yoga Through In Personality Development Of Children & Young

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Abstract

This paper discusses yoga as a potential tool for children to deal with stress and regulate themselves. Yoga provides training of mind and body to bring emotional balance. We argue that children and young people need such tools to listen inward to their bodies, feelings, and ideas. Yoga may assist them in developing in sound ways, to strengthen themselves, and be contributing social beings. First, we address how children and young people in today's world face numerous expectations and constant stimulation through the Internet and other media and communication technologies. One reason why children experience stress and mental health challenges is that globalization exposes the youth all over the world to various new demands, standards, and options. There is also increased pressure to succeed in school, partly due to increased competition but also a diverse range of options available for young people in contemporary times than in the past. A main concept in our article is that yoga may help children and young people cope with stress and thus, contribute positively to balance in life, well-being, and mental health. We present research literature suggesting that yoga improves children's physical and mental well-being. Similarly, yoga in schools helps students improve resilience, mood, and self-regulation skills pertaining to emotions and stress.

Keywords: Personality, youth, mental and physical health, yoga

Introduction

Children and young people all over the world to various new standards and options. Now children not only have new resources in their lives, but are also expected to perform well. Different institutions in children and adolescents' lives, such as family, school, and the media, constantly provide stimulation as well as expectations. This exposure to new expectations and demands has the potential to create stress in young peoples lives, especially related to evaluation of their performances. Recent research shows that the most stressed-out generation is the current young adults. The survey has found that millennial (18–33 years of age) are more stressed than any other current living generation. Respondents in the millennial generation were also less likely to give their healthcare an A grade. It is common knowledge that stress can have serious health consequences. If unaddressed consistently, a high stress level could become a chronic condition, which could result in a range of health problems, including anxiety, insomnia, muscle pain, high blood pressure, and a weakened immune system.

Objectives :

- 1 – To improve the physical and mental personality.
- 2 – To develop the power of concentration of young people.
- 3 - To improve the attitude towards work and personality.
- 4 - To foster creativity in written work.

Development through Yoga

Research indicates that stress can even contribute to the development of major illnesses such as heart disease, depression, and obesity or exacerbate existing health issues. We have observed that children are quite good at hiding their distress and emotional stress from their parents, since they do not want their parents to worry on their account. They desire to please their parents by their “appropriate” and “socially right” behaviors. Children dislike upsetting their parents and being the reason for adding to existing parental stress. According to a constructivist approach, children actively participate in their own development process. Moreover, children and young people interact with everyday life situations with world views that could be different from those of adults. In line with this theory, we believe that children function as an agency for their own well-being and have the evolving capacity to be partners of wellness with their families, friends, and society. However, children depend on the environment set by society to facilitate their potential for development.

This article discusses yoga as a potential tool for the youth to deal with stress and to regulate themselves. Yoga provides training of mind and body to bring emotional balance. It is claimed that yoga leads to alignment and harmony. A recent thesis suggests that yoga is a tool to listen to your heart. We argue that children and young people need such aid to listen inward, to their bodies, feelings, and ideas. Thus, yoga may contribute to healthy development and good mental health; health promotion for children needs to include improvement of their attention, self-esteem, empowerment, and self-regulation. We believe that children and adolescents need to develop based on their unique personalities, and to interpret and achieve the balance between their own strengths and societal expectations. Yoga may assist them in developing in sound ways, to strengthen themselves, and be contributing social beings.

Yoga for Children & Young

The ancient practice of yoga may help children and young people cope with stress and thus contribute positively to mental health. In a recent book on yoga education in India, the author claims that “in a nutshell, yoga is a powerful medium for developing the personality of children and making them capable of facing the present-day challenges and problems”. In her review article, “Effect of Yoga on Mental Health in Children,” one of the world most prominent yoga researchers, Shirley Telles, concludes that yoga improves children physical and mental well-being. Thus, yoga is an important life skill tool for children and young people to cope with stress and self-regulation in a life-long perspective. As researchers and responsible citizens concerned with children and young peoples healthy development, what can we do to provide a happy environment and opportunities for them to develop their maximum potentials? With this profound question confronting us, we would like to provide the arguments for choosing yoga. Thus, we must seek other solutions comprising empowerment to give children and young people the tools to develop self-reflection, self protection, self-regulation, and holistic self-development.

The increased global interest in yoga in recent decades is primarily due to the expectancy that yoga can calm the mind and increase overall health and well-being. Children mental health and well-being include developing healthy relationships with peers and teachers, and being able to self-regulate emotionally, mentally, and behaviorally. Yoga is an ancient Indian practice, which has been spread all over the world, and is even being revitalized in India itself. Yoga consists of certain postures, deep breathing techniques body poses, and meditation. There is experiential knowledge on which poses are appropriate for different bodily functions. Yogic practices positive impact on the physical and mental health of individuals and their well-being has been an established truth in the ancient as well as contemporary yoga literature. The recent scientific research on yoga provides empirical evidence for some of these claims, and specifies that certain yoga practices are beneficial for the mental and physical health of children and young people.

Benefits of Yoga

Yoga can be an appropriate scientific intervention in childhood and youth as a stress alleviator, especially in the school setting. The mentioned study conducted by Khalsa on high school students does provide evidence of yogic practices positive influence on them for emotional balance and stress alleviation. Yoga is also expected to help younger children and youth increase self-regulation and thus, facilitate their well-being, positive social interactions, and school performance. Other academic research suggests that yoga has significant health potentials and is especially beneficial for coping with stress.

The evidence of yoga practice among children indicates improved benefits in concentration, stress alleviation, self-awareness, consciousness, self-regulation, behavioral and emotional maturity, and self-confidence in everyday life. There are also some proofs where yoga has worked as an adjunct to medical treatment of mental illness with positive effects.

Conclusions

The results of the present indicate that regular practice of the various techniques had a beneficial effect on the personality development of students at the physical, mental, emotional and intellectual levels. In spite of the limitations of the study, we may conclude that all the changes developed as a result of the accumulation of the effects of the yoga techniques and the contribution of the positive self-image produced thereby. It seems likely that by producing a repeated „feel good“ experience of the regular practice of yoga techniques produces a progressive relaxation of the psychological process within oneself. Thus the personality development takes the direction of

increased openness towards the environment and increased spontaneity. The process leads to new awareness of self, exhibited by increased self-reliance, self-confidence, openness to interpersonal relationships and independence in the adolescent student. The process of education for the development of personality is a continuous function. The greater the development of personality greater will be his educational implications and greater will be the enfoldment of perfection in him. In the future education, we need not bind ourselves either by the ancient or the modern system but selects only the most perfect and rapid means of mastering knowledge. The past is our foundation, the present our material, the future our aim and summit. Each must have its due and natural place in a national system of education.

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A Prospective Study of the Impact of Stress, Anxiety OnSports Performance and Quality of Life

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Abstract:

Stress: It is an awful word and a worse feeling. The thing is, stress isn't all bad. Without it, we wouldn't be motivated to protect ourselves or perform. A certain level of stress helps us to adapt to our environment and pushes us to excel. The stress that is worrisome is chronic stress and it can affect you negatively in multiple ways. The role that major and minor life events play in the quality of life in low-income hypertensives was examined. The study utilized a prospective design response and explanation of how Chronic Stress is killing Your Quality of Life. Also how one can overcome stress and one can do stress management. Anxiety consists of two sub components cognitive and somatic anxiety which influence performance.

Keywords: Cortisol, chronic stress, UMMC, APA

Introduction:

Analyses revealed that major and minor stress were significant predictors of all measured domains of quality of life, even after age and number of chronic illnesses were statistically controlled. Minor stress contributed uniquely to the prediction of each dimension of quality of life even when age, number of chronic illnesses, and major life events were accounted for. Findings suggest that stress has a significant, persistent impact on the quality of life of low-income patients with established hypertension. These findings extend prior research that has examined the impact of medications on quality of life and suggest that stress needs to be accounted for as well. We can make two types of stress like good and bad stress.

1 The Stress Response:

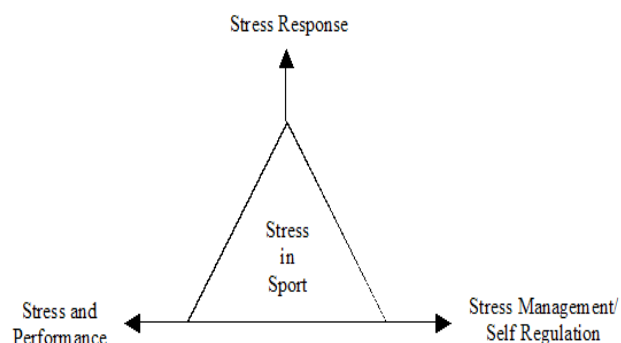
So what are some of the things chronic stress is doing to you? "Chronic Stress is killing Your Quality of Life".

Stress Effect on life:

We can list some stress and effect on life with some cases. We enlist as follows: Stress down Your Immune System:

Stress can also trigger a detrimental overdrive in your immune system. Stress contributes to inflammation in the body. Your immune system may react to other damage going on in your body due to stress and send out immune compounds known as cytokines that contribute to the inflammatory response. These compounds can damage healthy cells in their effort to combat unhealthy factors occurring in your body.

Fighting off infection isn't primary concern if your body thinks it's facing an immediate danger so chronic stress definitely dampens your immune system. People seem to be much more susceptible to infections and experience more severe symptoms when they come down with a cold or flu if they are stressed reports UMMC.



The stress model demonstrates what factors affect stress in sports

Sports Psychology for Performance Anxiety. It is rarely the external situation that causes stress, but rather the way the athlete's self-talk describes the situation that creates feelings of stress, anxiety, and fear.^{6 & 7}

As defined above anxiety is "the emotional or cognitive dimension of physiological arousal" (Ray and wise Bjornstal, 258) Research has shown that too much anxiety can negatively affect an athlete's sport performance, but if the amount of anxiety is within the athletes zof then the result will be positive.⁸

Messing with Your Brain:

You may think that it's necessary to work under the gun all of the time but according to the University of Maryland Medical Center (UMMC), chronic stress affects your ability to concentrate, to act efficiently and makes you more accident-prone. The Franklin Institute explains that the stress hormone Cortisol channels glucose to the muscles during the stress response and leaves less fuel for the brain. Cortisol also interrupts brain cell communication by compromising neurotransmitter function. All learning depends on the use of memory. Stress affects your ability to access memories and prevents you from creating new ones.

Stress Increases Risk of Heart Attack, Heart Disease and Stroke:

A direct link between chronic stress and increased risk for heart attack, heart disease and stroke has not yet been established by researchers. What chronic stress does do, reports UMMC, is worsen risk factors for these conditions.

Stress increases your heart rate and force, constricts your arteries and affects heart rhythms. It thickens the blood, which may protect against blood loss in case of injury theorizes UMMC. Stress increases blood pressure and chronic stress damages blood vessel linings, especially because chronic stress contributes to inflammation.

Increased blood pressure is also a risk factor for stroke and The Franklin Institute reports that stress levels can increase atherosclerosis, another risk factor for stroke. Chronic **Stress Contributes Aging:**

The stress response turns off many physiological processes that aren't deemed urgent. Consider the lack of blood flow to the skin. That's certainly going to affect how old you look. Toxins, automatic routines, improper diet, lack of exercise and loss of social connections contribute to this. So, as stress allows more toxins to cross the blood-brain barrier and damages the hippocampus, brain function, new learning and memory are greatly affected. **Stress Increases Pain:**

Work stress is associated with backaches and stress increases the occurrence and severity of tension headaches. Links between pain severity and chronic stress have been established with headaches, joint pain and muscle pain. Stress seems to intensify arthritis pain and back pain.

Stress Contributes to Weight Gain and Digestive Disorders:

Since digestion is also dialed down during the stress response, chronic stress can contribute to a variety of digestive disorders. Bloating, cramping, constipation and diarrhea are common symptoms of chronic stress. So too, is acid reflux and irritable bowel syndrome. Stress can worsen ulcers and inflammatory bowel disease.

Cortisol contributes to the accumulation of dangerous belly fat and worsens cravings for fat, salt and sugar. Eating unhealthy carbs can be soothing as this lessens the behavioral and hormonal imbalances associated with the stress response. Unfortunately, this behavior can become habitual and lead to health problems like diabetes and heart disease. Chronic Stress **Affects Your Mood and Relationships:**

Constant stress can affect your sleep patterns, make you irritable and fatigued, unable to concentrate and highly reactive. You may become unable to relax and operate in a state of anxiety. Depression is a common reaction to chronic stress. All of these things can downgrade your quality of life and affect your relationships with others. Chronic stress is associated with feelings of helplessness and lack of control.

Stress Affects Sexuality and Reproductive Functions:

Chronic stress reduces sexual desire in women and can contribute to erectile dysfunction in men. Chronic stress is linked to premenstrual syndrome severity and can affect fertility in women. Chronic stress can also worsen hormonally-based mood changes that accompany menopause. Stress

during pregnancy is linked to higher rates of premature birth and miscarriage. Stress during pregnancy may also affect how infants themselves react to stress after birth.

Chronic Stress Affects Your Skin, Hair and Teeth:

Hormonal imbalances due to stress and the fact that blood flow to the skin is reduced during the stress response can negatively affect your skin, hair and teeth. Eczema is a common reaction to stress. Acne, hives, psoriasis and rosacea have also been linked to stress. Hair loss and gum disease have also been linked to stress.

Stress Contributes to Addiction:

In an attempt to escape the negative feelings associated with chronic stress, many people turn to self-soothing behaviors or activities that temporarily raise their dopamine and serotonin levels. Alcohol, tobacco and substance abuse are common ways people attempt to treat stress. Food addictions, gambling, checking out with television and video games are also habits that may develop due to chronic stress. All of these behaviors end up worsening the problem in the long run and greatly affect both mental and physical health.

Don't Take Stress for Granted:

Just because you aren't able to spear your saber-toothed tiger doesn't mean that you can't learn to deal with stress more effectively. And plenty of research has found that stress management and relaxation techniques can help you become more able to adapt to stressful events, more efficient in functioning during stress and better able to recover from stress. Much of chronic stress has to do with feeling out of control or helpless.

What you can do?

Reducing your stress levels can not only make you feel better right now, but may also protect your health long-term. In one study, researchers examined the association between "positive affect" — feelings like happiness, joy, contentment and enthusiasm — and the development of coronary heart disease over a decade.

Identify what's causing stress. Monitor your state of mind throughout the day. If you feel stressed, write down the cause, your thoughts and your mood. Once you know what's bothering you, develop a plan for addressing it. List all your commitments, assess your priorities and then eliminate any tasks that are not absolutely essential.

Build strong relationships. Relationships can be a source of stress. Research has found that negative hostile reactions with your spouse cause immediate changes in stress-sensitive hormones, for example. Sometime relationships can also serve as stress buffers. Reach out to family members or close friends and let them know you're having a tough time. They may be able to offer practical assistance and support, useful ideas or just a fresh perspective as you begin to tackle whatever's causing your stress.

Rest your mind. According to APA's 2012 Stress in America survey, stress keeps more than 30 percent of adults lying awake at night. To help ensure you get the recommended seven or eight hours of shut-eye, back on caffeine, remove distractions such as television or computers from your bedroom and go to bed at the same time each night. Research shows that activities like yoga and relaxation exercises not only help reduce stress, but also boost immune functioning.⁴

Get help. If you continue to feel overwhelmed, consult with a psychologist or other licensed mental health professional that can help you learn how to manage stress effectively. He or she can help you identify situations or behaviors that contribute to your chronic stress and then develop an action plan for changing them.

Walk away when you're angry. Before you react, take time to regroup by counting to 10. Then reconsider. Walking or other physical activities can also help you work off steam. Plus, exercise increases the production of endorphins, your body's natural mood-booster. Commit to a daily walk or other form of exercise — a small step that can make a big difference in reducing stress levels.

How to Manage Performance Anxiety Symptoms

Based on what's been discussed, there are a number of strategies you can employ to reduce performance anxiety symptoms, such as the following:

- Reduce negative thought patterns that contribute to anxiety through cognitive restructuring (self-help books on cognitive-behavioral therapy will help with this)

- Learn how to interpret arousal during competition as positive or acceptable rather than negative (self-help books on acceptance and commitment therapy will help with this)
- Ensure that you have practiced enough so that you are confident during competition Generate that "team spirit" even for individual sports by making friends with other competitors
- For "away" games, ask friends or family to be there to root you on You can also use a number of strategies to help manage anxiety and induce relaxation related to athletic performance including visualization and progressive muscle relaxation.

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A Role Of Yoga In Education

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Abstract:

Modern Educational system seems to fail in the integrated development of the body. Mind and spirit. The present paper emphasis on yoga should be part of the syllabus and curriculum. But the cultivation of values are neglected in the present existing Education System. The values can be acquired through practice of Yoga and the individual transformation towards societal objectives. The right perspectives of value education should be achieve through continuous practice of Yoga in order to build character morality and fitness.

Education is a chief Instrument as well a catalyst of social transformation. Today's education is information oriented and an individual could not grow as a resistive one. In this situation, education goals and its purpose has once again to be reviewed and keep on discussion for better and useful educational system. That can bring about qualitative change in individuals perception, attitudes, habits, priority and goals. The present individual has become selfish, self- centered irreverent and cynical. The education with Yoga sharpens reasons but hardens the heart. It lays emphasis on the basic values such as truth, love honesty, humility, compassion, forbearance and justice. And it makes one conscious about one's rights and responsibilities.

Thus to impart real education for retaining the human health and values in the way of peaceful life. These can be achieved through Yoga that has imminent significance in the present value base education. Values are the concepts that describe human behavior, they are desirable ideals and goals, which are intrinsic and can be achieved when an individual has a deep sense of the fulfillment.

These days in continuous changing conditions and gross erosion of values of individual to keep pace with the society in order to fulfill one's desire to be at the top. If an individual is anxious about his desires fulfillment in a contended manner without disturbing his peace of mind, health and body fitness. In this context one has to practice mental and body exercise this is possible with Yoga.

Yoga is the union of the individual soul with the universal spirit in Indian context. As patanjali says yoga based and well explained scientific principles. Now yoga has become an asset to the mind and body to the well practitioners. The assimilation and co-ordination is possible through yoga. That will be helpful to tackle any problem. These two are very difficult to achieve in modern scientific age. The individual higher capability can be achieved practicing of yoga. It is the best instrument for the development of personality. Through practicing yoga one can consider Environment and Nature is holy in order to bring about physical, mental, intellectual and spiritual development of mankind. It is an instrument of erosion of human impulse. As Upanishads says yoga controls human body which being considered natural but today's humanity adopts other ways to gain control over them. Yoga acts as a link between physical and mental stability of mankind.

As Mahatma Says Education means 'drawing out of the best in child and man-body, mind and spirit. This concept of Education is practicable through yoga Education. Yoga Education has got an impetus throughout the world with different degrees of the peace. Yoga Education concentrates on physical Exercise for physical fitness and for strong healthy mind, it keeps relation with Pranayam Meditation and Asanas. According to Aurobindo all life is yoga. The erosion of human values of truth, cooperation, non – violence, peace, love, respect for parents, elders, authority and hard work is leading to the decay of moral and social fabric of society at a speed never witnessed in the history of civilization. Today mankind is leading life with stress and no slandering of life. The present education system is totally failed to initiate human activities and positive values of life. The only alternative before us is to promote yoga in Education system which brings the desired goals of the society.

The Indian culture and education is deeply rooted in spiritual and ethical values. Unless these values find their way into the life of students, education will lose its significance and will not fulfill its aim. Though we have made progress in knowledge but still we are not above the levels of our past generations in ethical and spiritual life. In some, we have declined from their standards. Today we have been successful in making professionals but not the human beings.

Thus, inculcation of human values is to be stressed up on in our system of modern education to prevent and combat world terrorism, tension, diversities, self-centered vision and violence. Through quality education restoring of humane values (viz., Social, Moral, Spiritual, Environment, Economical, Political and Work values) is possible. The main aim of value education is to reform attitude and behavior, to promote healthy lifestyle, to shape the high moral character and to develop refined personality of younger generation, who can prove themselves as the best citizen of a nation.

Radioactivity and radiation existed long before the evolution of the life on the earth, excessive radiation exposure is, no doubt, harmful and can cause genetic disorder, which may even be fatal. Further the slew of free radical production is conventionally attributed to too much urbanization, pollution and junk food. Apart from

radioactive exposure and oxygen free radicals, many wrong habits and irregularity in lifestyles may lead to poor state of fitness and ultimately results in various health hazards. Therefore, there is a need to develop systematic strategy to educate the common people and making them conscious to prevent their fitness and health.

Yoga is of great relevance to mind-body medicine because of the way it looks at life. The yogic view of life is the best prescription even written for lasting peace and joy, which are independent of external events and circumstances.

Emotion is responsible for many types of disease. Psycho physiologically, emotions act upon our body through hypothalamus which controls (Autonomic Nervous System) and the endocrine systems. Negative emotions like anger, fear, greed, jealousy give rise to somatic illness where on the other hand positive emotions like love, compassion, friendship affection etc. give the strength to combat the stress. Illness due to negative emotions includes hyper acidity, hypertension, insomnia, menstrual disturbances, loss of appetite etc.

Yoga plays a vital role as the ancient Indian healing art. Classical Yoga is a science of human psychology. It works on three-facet viz. mental, physical & social states resulting in improved health, lesser greed for possession & efficient management of human life.

Value Education is a process of education which involves working on the total personality of the individual keeping in view all aspects of personality development, the intellectual, social and emotional, will and character (Education ion values N.C.E.R.T, 1992, pp.22-30) The human values can be cultivated and retained through Dhyana-Yoga and Karma-Yoga lead to wisdom and understanding humanity.

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The Role Of An Omega 3 (EPA - DHA) To Enhancing The Mental Health Of An Athlete

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ABSTRACT :

Daily diet of an Athletes are doing physical as well as mental activity during the sports at that time they required nutrition diet (balanced diet). Maximum nutrition mostly found in vegetables and non vegetables. Among this the most valuable Omega 3 Fatty Acid is requires. So an athlete have to add Omega 3 Fatty Acid in his regular diet.

KEYWORDS : Mental Health, Omega 3 Fatty Acid, EPA & DHA.

OBJECTIVES :

As we all know that each and every athlete or sports person trying for physical fitness by doing daily physical activity like running, walking, gym workouts and playing games. But with regular physical activity athlete must care about mental health. Many athletes search for the answer of how to get mental health or mentally tough and many athlete don't know how to cultivate it. So we will find some fact about how to improve the mental health.

WHAT IS MENTAL HEALTH ?

“Mental toughness is to physical as four is to one” - Bob Knight (Famous American Basketball coach)
“Football is so much about mental toughness, it's digging deep, it's doing whatever you need to do to help a team win” - Tom Brady (an American football quarterback for the New England)

Mental toughness is and attitude which you can get from mental health training and proper nutrition and diet. With stronger mental health you can perform the best level athlete ability, face the obstacles, interference and difficult, circumstances without loosing your confidence and motivation. The success of an athlete's depends upon his mental toughness.

DIET AND MENTAL HEALTH :

We eat may affect not just our physical health but also our mental health. It is necessary to feel well being then we have to must eat fruits and vegetables. Mediterranean style diet (vegetables, fruits, grains, nuts and unsaturated fats, fish) supplements and poor diet with high level saturated fat, refined carbohydrates and processed food products leads to poorer mental health.

Poor nutrition and diet can leads to health problem like obesity which create mental problem also. Relation between obesity and depression is that many obese people got suffered involved in depression.

OMEGA 3 FATTY ACID (EPA - DHA) :

Now a day's players playing games for not only for participating, it's only winning the competition. So as a result he is ready to pay that high intensity exercises. Which leads to inflammatory state like blood clotting in vessels, hypolipidemic and vasodilator properties. Although this can be countered by Omega 3 Fatty Acid like EPA - DHA. as we are discussed in this para an athlete doing hard work for achieving his target, he get nutrition diet and exercise and foud the regimen. Today we understand how the Omega 3 Fatty Acid are essential for an athlete.

Omega 3 Fatty Acid helps to prevent to manage hypertension, diabetics, auto immune diseases.

While doing physical activity athlete need to perform proper respiration like leaving Carbon dioxide and gaining Oxygen. Omega 3 Fatty Acid increase Oxygen delivery to heart muscles when it need.

An Athlete getting benefits by doing physical activity and fitness training. During this high intensity exercise leads to state of inflammation and an athlete can overcome by this inflammatory state using Omega 3 Fatty Acid.

Flaxseed is rich source of omega-3 polyunsaturated fatty acids (PUFA) and it is helpful in prevention of cardiovascular diseases and cancer particularly of mammary and prostate gland, anti inflammatory activity, laxative effect. Nutritionists actually clear about selected foods that play an important role in maintaining physical and mental health status of consumers. However, specific poly un-saturated fatty

acids (PUFA) have been shown to have different effects on adipose tissue metabolism that is beyond their energetic role.

SOURCES OF OMEGA 3 FATTY ACIDS

Omega 3 Fatty Acid are dietary fat naturally occur in many foods like Cold water fish, Egg, Mackerel fish is having great contents of nutrition's and Vitamin B6 and B12. Fatty fish is also dietary source of Omega 3. Salmon (1.24 of DHA, 0.59 EPA) is most popular and highly nutritious fish available. Salmon also contains high level of protein, magnesium, potassium, selenium and B vitamins (Medical new today) There are some more fishes which full of omega 3 Fatty Acid are Sea bass, oyster, sardians, shrimps, trouts etc.

There are so many vegetarian dishes also available for Omega 3. Flax seeds, chia seeds, walnuts, avocados which contains EPA & DHA. Alpha-linolenic Acid (ALA) generally found in marine plants and soyabeen, canola.

SUPPLEMENTS :

people who cannot meet their omega 3 dietary supplement they can use that supplement which can help to manage the problems which are facing by the lack of Omega 3 Fatty Acid.

1. Fish Oil (for EPA and DHA)
2. Cod Liver Oil (DHA and EPA with Vitamin A and D)
3. Algae oil (for the vegetarian people)

CONCLUSION :

Omega 3 Fatty Acid prevent to manage heart diseases and arthritis. They may also important for brain health and also for normal growth development. Omega 3 Fatty Acid helps to prevent to manage hypertension, diabetics, auto immune diseases. So an athlete include Omega 3 in their regular diet.

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Comparative Study of Fat Percentage and Lean body Weight among Vegetarian and Non-Vegetarian Students

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Abstract:

The main purpose of the study is to find the comparison of Fat Percentage and Lean body Weight among Vegetarian and Non-Vegetarian Students. For the present study the subjects were selected from affiliated colleges of Amravati University. The subjects were selected by Simple random sampling method. For the present study total fifty male subjects were selected. Twenty five subjects were selected from the affiliated colleges of Amravati University of vegetarian and twenty five subjects were non vegetarian students. Fat Percentage and lean body weight were selected as variables for this study. All the variables measured in each college student individually during college session with the help of standard scientific instruments and techniques. The data for the study is to be collected and statistical analysis of data will be done by using statistical technique 't' test because in the present study only two variables are taken into consideration i.e. fat percentage and lean body weight of college students. The level of significance is 0.05 for testing the hypothesis. There was found significant difference of fat percentage and lean body weight of college students of vegetarian and Non-vegetarian.

Keywords: Fat Percentage, Muscle Mass, Vegetarian and Non-Vegetarian

Introduction:

There are many who wish good health, but there are only few who try to be aware of it. But by merely imagining, health cannot be maintained. This has to be done for a continuous effort. Good and balanced diet has three fundamental elements to maintain regular routine and regular exercise health. Food should be coordinated with fruits, cereals, vegetables and milk. The person's health remains good by taking some amounts of fruit, green fresh vegetables, sprouted grains and milk every day. Along with that, stale, gourmet, more fried and high-fat food is unfavorable to human-health. Nowadays children and youth are getting attracted towards fast food. This attraction invites many kinds of diseases and obesity.

Methodology:

For the present study the subjects were selected from affiliated colleges of Amravati University. The subjects were selected by Simple random sampling method. For the present study total fifty male subjects were selected. Twenty five subjects were selected from the affiliated colleges of Amravati University of vegetarian and twenty five subjects were non vegetarian students. Fat Percentage and lean body weight were selected as variables for this study. All the variables measured in each college student individually during college session with the help of standard scientific instruments and techniques.

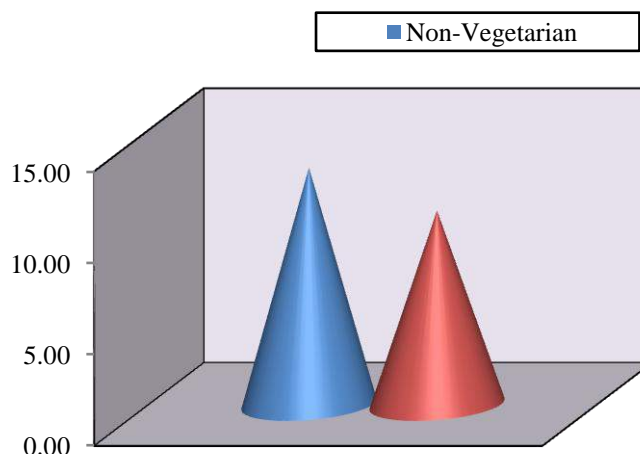
Statistical Analysis:

The data for the study is to be collected and statistical analysis of data will be done by using statistical technique 't' test because in the present study only two variables are taken into consideration i.e. fat percentage and lean body weight of college students. The level of significance is 0.05 for testing the hypothesis.

Table-1: Mean and t-ratio of Fat Percentage for Vegetarian and Non-Vegetarian Students

Group	N	Mean	SD	SE	MD	Ot	df	Tt
Non-Vegetarian	25	12.933	3.906	0.916	2.340	2.556	48	2.01
Vegetarian	25	10.593	2.389					

Table-1 indicates that that the obtained 't' value of 2.256 between Non-vegetarian and vegetarian students in fat percentage was found to be significant at 0.05 level of confidence as we obtained value of 2.01 with 48 degree of freedom.

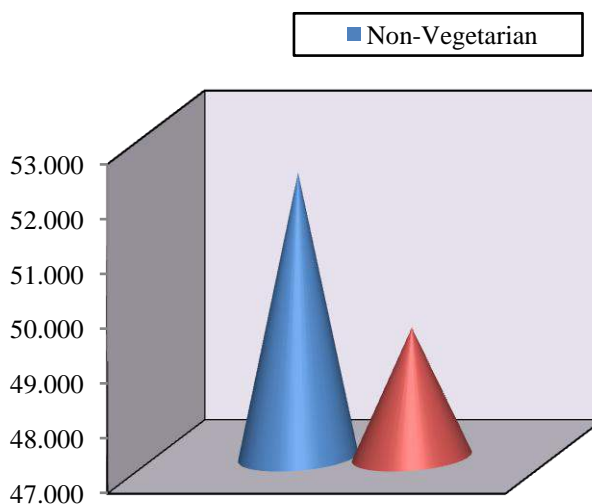


Graph No.1: Mean Difference between Vegetarian and Non-Vegetarian Students

Table-2: Mean and t-ratio of lean body weight for Vegetarian and Non-Vegetarian Students

Group	N	Mean	SD	SE	MD	Ot	df	Tt
Non-Vegetarian	25	52.180	6.309	1.675	2.826	1.687	48	2.01
Vegetarian	25	49.354	5.510					

Table-2 indicates that that the obtained ‘t’ value of 2.826 between Non-vegetarian and vegetarian students in lean body weight was found to be significant at 0.05 level of confidence as we obtained value of 2.01 with 48 degree of freedom.



Graph No.2: Mean Difference between Vegetarian and Non-Vegetarian Students

Conclusion:

On the basis of the result drawn with the mentioned methodology the following conclusion were drawn out. There was found significant difference of fat percentage and lean body weight of college students of vegetarian and Non-vegetarian. The study showed the partially significant difference among the mean of selected items of the groups. The conclusion of this research work May aware the students as well as players about the muscle mass while performing any physical activity.

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Advance Sports Technology

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Abstract

We are living in the technology age and most of our day to day activities cannot be accomplished without using it. Technology is affecting every sphere of our life and has become an indispensable and multipurpose tool. In the area of sports and games, a lot of information like events, place, records programmes, score etc have to kept in memory for long duration and for also a basis for the future.

Keywords : Sports, Technology and Performance

Introduction :

The technology research ranges from fields such as disease prevention and treatment to advanced and improved electronic devices. Modern Information and Communication Technology (ICT) are excellent devices for analyzing the sports performance - like recording performances, monitoring performance analyzing movements and afterwards analysis. ICT have been help full in supporting sporting activities, or have the potential to do so. This is due to ever increasing processing power and to its capability of modeling and solving problems which are of great help for variety of sports disciplines. The world of sport is continually changing over the years, and the use of technology is just one of those areas that has made an impact on many sports in the modern day. The growth of technology in sports sector as a whole is in accordance with increased participation in sporting activity and this has

Objective of the study :

1. To know the application of advance sports technology in physical education and sports.

Review of literature :

Rao (2015) reported that first application modern advance technology in sports science were reported in the middle of arties. In particular, compute numerical evaluations of biochemical investigations and statistical analyses were performance with the main frame as technologies available at that times. **Ravi Shankar (2017)** noticed that advance sports technology is fast growing and the field of sports and games are really advanced with the use of it.

Advanced sports technology and it's application

Hawk eye technolgy :

1. Track the trajectory of the ball and display a record of its most statistically likely path as a moving image.
2. Referring decision to the third empire, it if a team disagree with a decision.

Speed gun :

1. To find the speed of the ball when delivered.
2. Related to its speed a batsman will adjust himself in tracking the bowler with higher speed.

Snick Meter And Middle Wicket Camera:

1. To graphically analyze sound and video, and show whether a fine noise, or snick, occur as a ball passes the bat.
2. It is often used in a slow, motion television reply by third umpire to determine if the cricket ball touched the wicket bat on the way through to the wicketkeeper.
3. This helps the third umpire to listen and view the shape of the recorded sound wave.

Genetic algorithms (ga) :

1. Unconventional modeling paradigms, like fuzy logic, artificial neural networks and evolutionary strategies are applied in order to deal with problems of sport science (e.g. simulating export decisions, learning feature recognition and movement optimization)
2. Genetic Algorithms applied to the problem of movement optimization we analyze the influence of simulation parameters

Artificial neural network (ann) :

1. To test the significance of different network parameter for simulation results, we perform simulation with a simple ANN consisting of 2 to 20 input neurons and one output neuron.

Fuzzy logic and tactics :

1. To observe the properties of a player playing on a specific tactical position.
eg. Goal getter or good dribbler

Critical Flicker-Fusion Frequency (Cff)

1. Analyzing the various boundary condition of CFF measurement
2. Practice effects of CFF
3. Influence of light-dark ratio on CFF
4. Dark adaptation effects on CFF
5. Risky behavior and CFF (Single detection theory)

Nanotechnology

Nanotechnology is useful in manufacturing the sports equipment of various sports disciplines. the nano-silver suppresses respiration, basal metabolism of electron transfer system and transport of substrate in the microbial cell membrane this process inhibits the multiplication and growth of the bacteria and fungi , leading to much cleaner and better smelling sports equipment.

Conclusion:

During the last decade not only the pure application of advance sports technology as a tool been continuously growing, more over it has become an important interdisciplinary partner for sport and sport science. Activities in this interdisciplinary field were and are strongly affected by development in sports Sscience.

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The Role Of Technology In Sports

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Keywords: Technological Innovation, Sports Genetics and Data Analysis

Introduction

Coaches and athletes have clinched to technologies whether it is the adoption of sensors and chips to aid them in assessing their performance with pleasure. It is neither an easy task for coaches and scientists who have to face new challenges in the field of sport and exercise science due to invariable influx of advance technology and constant updating the knowledge. Inclination towards technology for prompt outcome and data collection has been the prime thirst of the coaches and applied sport scientists with merest amount. Escalation in muscle strength and endurance is due to the clear picture of physiology, biomechanics, elaborate training techniques and high tech equipments and technology which made athlete to reach a new horizon. To identify the device which may lead to injury and hike in the performance by using advance techniques design fetching results with spending less energy and good results. Advance technology has permitting the athlete to set new standard in peak performance. Erstwhile number of technology in sport articles has been published (e.g. micro-technology sensors and GSP in games, Cummins, Orr, O'Connor & West, (2013). Soltanzdeh (2015), Technology has been philosophically defined as any physical instrument(s) that can be used for problem solving.

Technological Innovation

Tacking the athletes by biometric data is an easy way out. It has set up advanced approach to amplify the angle or velocity of player's performance. Earlier investigations about athletes' performance were acknowledged by wearable sensors or optical based tracking systems that were availed by cameras and analytical strategy. Sports gear such as attire and sneaker is advisable to be cozy and eluding injury incorporated with performance augmentation. Training cannot be compromised with a wrong pairs of shoes and wear. Fink Densford (2016) X2 Biosystems has launched its X2 head impact management system designed to monitor head impact and study cumulative brain damage due to repetitive sub-concussive head-impacts. It is outline to be worn at the rear ear with an adhesive strip, which is user-friendly and the area records the head impacts and emit the data via Bluetooth to the IDM app. HexoSkin monitors ECG & Heartbeat monitor, Breathing Rate, intensity, steps, cadence, positions and best sleep tracker indeed it is boon to the sportsman and layman connected to fitness and medical practitioners. Outcome is huge for the athletes who toil ceaseless for hundredth of second.

Robin Arkell (2018) Hockey India's scientific advisor says players wearing a strapped device between their shoulder blades while training is an eye-catching sight. But the amount of specific data these GPS player tracking system provides have changed the way training programs. GPS (Global Positioning System) Small devices often worn in sleeve or undershirts contain the device that monitors the players every move. GPS analyze the training load of each athlete along with distance covered, intensity of sprints, and the comprehensive workload of every athlete during the progress of the game or training period. Specific skill position, fatigue level and injury can be traced by the coach by this device. GPS data can be an aid for conditioning, recovery, fitness over and all for taking appropriate decision about the progress or weakness of the athlete.

Oakley's new Jawbreaker glasses apparently the best advance technological formed cycling grassed which bears sensors and aerodynamic around ventilation.

Sports Genetics

A dominant factor to be considered is genetic aspect of an athlete. Every sports has different physical prerequisite and the outcome is based on the genetic aspect by a large. With the aid of advance technology, scientists have discovered that there are genetic markers. DNA can provide insight into athletic potential or help minimize the risk of injuries and guide them to be successful in choosing the event or sports. Skeletal muscles are made up of two types of muscle fibers: slow-twitch fibers and fast-twitch fibers. Slow-twitch fibers contract slowly but can work for a long-distance running. Fast-twitch muscle fibers contract quickly and results to be a good sprinter and other activities or sports require power and strength. ACTN3 (actinin alpha 3) is building up protein which is located in fast-twitch fibers. ACE (angiotensin-converting enzyme) which has complete absence of alpha actinin-3 and but on the larger side of slow-twitch fibers in the body and is found in elite long distances athletes. Both the gene is associated with the athlete's performance. A genetic profile indicates that fast twitch muscle fibers is not only thing an athlete requires to face the challenge of 100-meters dash at the International level. There is a genetic test known as ACTN3-genotyping-Sports-Gene test which is done on the athletes to find out the role played by the sports gene. Lab technicians will direct the subjects to do exercises on hi-tech knee machine and which will identify the genetic makeup of the person. There is one more way to find out the genotyping-sports-gene is to give blood sample for genetic test. It also demands right lung capacity, specific muscle and bone morphology profiles, and psychological toughness. Never the less diet, environment, culture, passion also plays a vital role in the success of an athlete.

Fast-twitch muscle workout routine which include Med ball cross behind side toss is great way to develop max power and PAP complex. Heavy squats, Dead lifts, Olympic lifts, Squats, Plyometrics and Bench Presses are good ways to increase Type II fibers.

Data analysis

Every meager thing athletes perform can be examined, gauged and broken down in small bits to get a clear picture about the negative and positive points. The outlook will be easy to investigate for illuminating the drawbacks and discover the solution to the given situation. Kitman Lab (2018) is the world's first Athlete optimization system which enabling the evolution of performance through machine learning, computer vision, analytics and sports science. This device can assist to scale down the injuries and raise the performance. The coaches and athletes can figure out the level of risk injury and safety measures to be taken up accordingly. Identification of a valuable player and expensive players which the whole team can penalized for his minor mistake can be accessible with the avail of data analysis. SAP (System, Application, product in data processing) has taken professional sports team management to a new level. It benefits clubs and organizations digitalize sports performance management by reconcile all administrative, medical measure, drill and team management.

Virtual Training

Way back the coaches used video footage to train and prepare for matches and study the movement analysis of the athlete which was time consuming process. Now the situation has changed thanks to the advanced technology. Today to examine the by-product and boost oneself pursuance by data collected in the interim of virtual training. Virtual training permits the coaches and athlete to sharpen the vision of the game, predict to the response of his opponent, to upgrade his technique and fitness after all it's about the cutting edge of hundredth of seconds to prove intrinsic dexterity. Virtual training endeavor remarkable analysis techniques to the player by visualize the games as if he is actually playing the game on the field with his opponent. Employing 3D simulators, athletes can catch a glimpse of various tactical options arising in the game situation and prepare physically and psychologically before the actual game takes place.

CAD (Computer aided design)

CAD(Computer aided design) is a elevated and advanced technology in the field of electronic world. It allows virtual design, creative and imaginative process experience of instructors, coaches and sports science researchers. CAD is a dynamic means of gauging a new product ideas, graphs, pictures with judgments and interpretations which are mainly used to improve the safety level, comfort and validness of specialized sports equipment. CAD technique is enforced to the sports functioning design and innovation, also figured out the traditional design with advanced technology of modern science and research. The images of combative movement are created by aid of a bilateral system between man and computer.

Conclusion

Latest technology for route workout device, modern way of data analysis and to rectify the errors by appropriate assessment technique which has and will be definitely improve the quality of the sports. The impingement of technology on sports cannot be categorically measured, but few technological innovations do raise questions about fairness. Application of technology by athlete wearing high-tech running shoes in the competition to enhance the performance or sensors or GPS used by the coaches during the training period. Is it different as compared to use of doping or steroids? Clear-cut rules and regulation to some extent should be the borderline. These modifications have carved the way the facts, sports genetics and data analysis are transmitted to the elite sportsmen by coaches in regular practice and corrective measures are implemented to enhance their performance in competition which cannot be denied. In all probability technology will be in possession to have impact on sport. Freezing point is that whether scientists, coaches and athletes can aptly use and understand new technology.

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The Importance of Outdoor Play and Its Impact on Brain Development of Children

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Introduction

Child's play is not just all fun and games; rather the act of play is a crucial component in the growth and development of the brain, body and intellect. Studies of how young people learn have proven, that children, especially, acquire knowledge experientially, through play, experimentation, exploration and discovery. Research shows us that many of the fundamental tasks that children must achieve, such as, exploring, risk-taking, fine and gross motor development and the absorption of vast amounts of basic knowledge, can be most effectively learned through outdoor play. 1 For example, when children move over, under, through, beside, and near objects and others, the child better grasps the meaning of these prepositions and geometry concepts. When children are given the opportunity to physically demonstrate action words as stomp, pounce, stalk, or slither, or descriptive words such as smooth, strong, gentle, or enormous, word comprehension is immediate and long lasting. The words are used and learned in context, as opposed to being a mere collection of letters. This is what promotes emergent literacy and a love of language. Similarly, if children take on high, low, wide, and narrow body shapes, they'll have a much greater understanding of these quantitative concepts, than children who are just presented with the words and definitions. 2 Learning by doing, creates more neural networks in the brain and throughout the body, making the entire body a tool for learning.

Benefits to Outdoor Play

Growing up many of us might have been told at some point to go outside and find something to do. Today, especially in a school setting it seems children are being told less and less to go outside, as they are encouraged to stay inside and study more. Our children seem to be getting fewer breaks from academics in order to achieve higher scores on testing and to meet standards for achievement. The issue with studying more is that the brain doesn't have a chance to get a break, and recharge. In an educational institution, recess is a time where children should engage in unstructured play, which is not directed by adults, although supervised. 5 Recess, or just outdoor play time is an opportunity for a child to freely play, or think the way they want to think, and not be directed by an adult or teacher. This type of thinking enables the child to use the brain the way he or she wishes to use it. Children are also physically active during play, and develop social, emotional and cognitive competencies. Although children love to move, and adults tend to think of them as constantly being in motion, children today are leading much more sedentary lives than their predecessors. According to research, children ages 2 to 5 spend close to 25 hours of TV time each week. In fact, watching television is the predominant sedentary behavior in children, second only to sleeping. The advent of computers and video games has also contributed to the decline in activity. A study from the Kaiser Family Foundation determined that children ages 8 to 18 are spending more than seven and a half hours a day with electronic devices, the same numbers of hours some people spend at full-time jobs.

According to research, there is one consistent observation that stands out among the studies of energy expenditures in young children: those under the age of 7 seem to expend about 20 to 30 percent less energy in physical activity than the level recommended by the World Health Organization. The Children's Activity and Movement in Preschools Study (CHAMPS) determined that children enrolled in preschools took part in moderate to vigorous physical activity (MVPA) during only 3.4 percent of the preschool day. Getting children outside more benefits the children not only physically, but also allows the brain to recharge which, should produce greater results academically, socially and cognitively

Outdoor Play Allows a School-Aged Child to:

- Increase the flow of blood to the brain. The blood delivers oxygen and glucose, which the brain needs for heightened alertness and mental focus
- Build up the body's level of brain-derived neurotrophic factor or BDNF, BDNF causes the brain's nerve cells to branch out, join together and communicate with each other in new ways, which leads to your child's openness to learning an more capacity for knowledge.

- Build new brain cells in a brain region called dentate gyrus, which is linked with memory and memory loss
- Improves their ability to learn.
- Increase the size of basal ganglia, a key part of the brain that aids in maintaining attention and “executive control,” or the ability to coordinate actions and thoughts crisply.
- Strengthen the vestibular systems that create spatial awareness and mental alertness. This provides your child with the framework for reading and other academic skills.
- Help creativity.

Barriers to Outdoor Play at Home

Our culture is moving away from outdoor play and children are spending excessive time watching television shows, playing on their tablets or phones, and playing video games. Today children’s lives are more and more contained and controlled by small apartments, high-stakes academic instruction, schedules, tense, tired and overworked parents, and by fewer opportunities to be children.³¹ Parents are more afraid of letting children roam in a world of heavy traffic, violence, and reports of missing children, than they were twenty years ago. Boundaries for kids used to be measured by blocks or by miles, now the boundaries for most children are the front yard. For many children, the only outdoor play that they receive is at adult managed sporting events. There is considerable room for improvement in parent-supervised outdoor play, opportunities for infants, toddlers, preschool and school-aged children. Improvements have numerous benefits for young children's physical health and development. Parents are the most important role models and decision makers for their children. They need to be aided and empowered in order to provide ample outdoor active play opportunities for their young children.

Conclusion

There is an alarming trend toward limiting outdoor play and or recess during the school day. As advocates of young children we need to share the many important and positive aspects of playing outside and advocate for ample recess opportunities for children. The act of play is a crucial component in the growth and development of the brain, body and intellect. Studies of how young people learn have proven, that children, especially, acquire knowledge experientially, through play, experimentation, exploration and discovery. It is important to understand that many of the fundamental tasks that children must achieve, such as, exploring, risk-taking, fine and gross motor development and the absorption of vast amounts of basic knowledge, can be most effectively learned through outdoor play.

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Music Fuel For Performance In Sports

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Abstract:

Music has been widely recommended as a technique to enhance the psychophysical state of participants in sport and exercise. This paper will exhibit the benefit of music on sport and also the enhancement of athlete performance by the use of music as a motivational tool. The tempo of the music can also have an effect on movement. The implication is that music provides temporal cues that have the potential to make athletes energy use more efficient. Music alters emotional and physiological arousal and can be used prior to competition or training to calm anxious feelings, and providing arousal regulation.

Keywords: Music, Motivation, Performance, Synchronization, Arousal Regulation.

Introduction:

Since time immemorial, music has been embedded in life. It seeps into arts and culture, finds expression in language, and has great affect on lifestyle. The origin of music dates back to the earliest of civilizations, thereby making it difficult to pinpoint the exact date whence it started. In this modern age, we hear music around us almost all of our waking hours, in one form or another: radio, television or film music and our personal music (iPods, MP3 players, etc.) is with us throughout the day. Most of us listen to recorded music or go to performances regularly, and some of us play a musical instrument. Prior to modern audio recording technology, music was available only in the presence of a musician, or to those who played an instrument or sang. Music varies in genres, pop, rock, etc.

The use of music as a method of relieving anxiety has been studied extensively by researcher from varying disciplines. Music best aided in relief of stress. Listening to classical and self selected relaxing music after exposure to a stressor should result in significant reduction in anxiety, anger and sympathetic nervous system arousal and increased relaxation compare to those who sit in silence. Music not only plays an important role in people's everyday lives, but 't' also plays an important role in the sport and exercise domain. The relation between music and sport has aroused interest for many years. Music can be heard at any major sporting event or in any exercise facility. Music during sporting events or exercise can represent or express the individuality of the participant, motivate the participant, or add excitement to the atmosphere. It is said that the music accompaniment to exercise and sporting events provides an important beneficial effect to the exercise and sports experience. Music has become a major influence on society, so it is no surprise that music has become prominent in the physical activity arena.

Music can influence the body to have greater energy output, and also reduce the perception of feeling tired. When we are bored with doing the same things day in and day out music is what keeps us going while putting a beat under our feet. In fact a common image of sports now a day is that of athletes entering the competition arena adorning headphones. Music elicits certain feelings and emotions depending on the situation. Scientific inquiry has revealed five key ways in which music can influence preparation and competitive performances: dissociation, arousal regulation, and synchronization, acquisition of motor skills and attainment of flow.

Dissociation:

During or prior to exercise, music can narrow attention, in turn diverting the mind from sensations of fatigue and anxiety. This diversionary technique, known to psychologists as dissociation, lowers perceptions of effort. Effective dissociation can promote a positive mood state, turning the attention away from thoughts of physiological sensations of fatigue and anxiety. More specifically, positive aspects of mood like vigour and happiness become heightened, whereas negative aspects like tension, depression and anger relieved. Music alters emotional and physiological arousal and can therefore be used before competition or training as a stimulant, or as a sedative to calm anxious feelings. Music thus provides arousal regulation fostering an optimal mindset.

Acquisition of Motor Skills:

Music can help to replicate aspects of human movement. It can transport the body through effective movement patterns. Music can also promote intrinsic motivation. The use of music in a learning environment can make the environment more fun for the players and promote learning.

Arousal Regulation:

Arousal refers to the degree of anxiety and is manifested in both physical and psychological factors. While the physiological processes tend to react sympathetically to music's rhythmical components, it is often lyrics or extra musical associations that make an impact on the emotions. Thus we can say that Music alters emotional and physiological arousal and can be used prior to competition or training to calm anxious feelings, and providing arousal regulation. An example of is Dame Kelly Holmes reported using soulful ballads of Alicia Keys in her pre-event routine at 2004 Olympic games. Music thus provides arousal regulation fostering an optimal mindset. Most athletes use loud, upbeat music to "psych up," but softer selections to help "psych down," as well.

Synchronization:

The tempo of the music can also have an effect on movement. The implication is that music provides temporal cues that have the potential to make athletes energy use more efficient. It replicates forms of bodily rhythm and many aspects of human locomotion. It can transport the body through effective movement patterns, providing an apparent visual analogue of the sound.

The type of music listen may cause a person to synchronize their movements. If an athlete listens to a fast temp song they may be likely to increase their movements to a faster pace possibly enhancing performance (i.e. cycling, running). Likewise, if an athlete requires slower more graceful movements (i.e. figure skating), then slower temp music could assist optimal performance. Thus rhythm is an important component in motor skill and performance.

Attainment of Flow:

Flow is sometimes referred to as being "in the zone". This is a state where during physical activity the mind and body function on 'auto-pilot' with minimal conscious effort. Research has shown that interventions that include self-selected music and imagery performance could enhance athletic performance by triggering emotions and cognitions associated with flow.

Conclusion:

It has been established that there are many ways in which music can be applied to both training and competition. The use of music during athletic performance may yield long-term benefits such as exercise adherence and heightened sports performance. Choosing music that motivates us will make it easier to start moving, walking, dancing, or any other type of exercise that we enjoy. Music can make exercise feel more like recreation and less like work. From the above information it can be seen that music enhances performances of sport man.

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Physical Education Teacher's approach towards Professional Sports Management

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Abstract:

According to recent studies, greater numbers of Colleges of Physical Education have made the social fabric more robust. Moreover, the importance of the well-being feelings, the quality of life based on aesthetics, the expansion of the sports media and the growth of the performance-enhancing sport equipments have actually established a positive change of behavior in the citizen who has access to them. Considering these aspects, it has been stated that the most relevant tendency of the sport network today is its diversity which is interrelated with the economical, educational, political and media systems. When analyzing the present and the future tendencies of the sport, leisure and fitness, it seems that to qualify human resources to work on this business is necessary. In addition to above, it is noteworthy to mention that the career of a sport manager has been based on the knowledge taught at the undergraduate and graduate courses supported by two branches: the physical education and the administration, both aiming at the graduation of the sport manager. In the backdrop of above information, a systematic stud has been carried out wherein the professional approach to sports management related aspects of the physical education teachers/lecturers have been studied. For this study, a standardized research instrument was used and furthermore, the collected data was analyzed by using appropriate statistical tests.

Keywords: Sports Management, Physical Education Teacher, professional approach

1.0 Introduction

In the backdrop of importance of the role of physical education teachers in the academic as well as sports field, it is important that the person has good and favorable attitude towards the sports and games. This is because, attitude is the very gist of an individual's way of thinking; it is an individual's ideals, his concepts of right and wrong, and all his/her aspirations. In a nutshell, attitude can be defined as the totality of the individual himself. Some aspects of an individual's attitude are inborn, inherited and taken in due to his/her circumstances. This is because what an individual grows with, has got to have an influence on his life's pattern and his personal thinking, which account for his attitude. Environment changes the attitude of a man and the man then is made by his attitude. In the same way, if the attitude of an individual is one of continued resentment towards all that is his and is around him, this attitude will also radiate towards him only, and continue to make him a worse and worse individual. This effect of attitude on the individual is a continuous process and keeps molding the individual for the better or the worse. It serves just as a vicious circle, the good become better with a good attitude, and the bad and the unhappy become worse and unhappy with their respective attitudes to life and all there is in it.

The physical educator is to provide maximum physical activity time within the class period, teach skills and activities that transfer into physical activity outside of physical education class, motivate children to be physically active, and take the role of physical activity director for the school. If students are to receive the amount of physical activity they need each day, other opportunities to be physically active within the school day must be provided. The physical education teacher has unique responsibilities in the schools and college's physical activity program to ensure that students are physically active within the physical education class. The physical education teacher also has the responsibility to help direct and guide opportunities for physical activity within the school outside the physical education class. In the backdrop of above information researcher decided to study the factors influencing attitude of physical education teachers towards professional sports management.

2.0 Research Methodology

In the present study, a combination of qualitative and quantitative method was used, which was clearly identified in view of the specific objectives of the study. In this study, a careful collection of facts was undertaken by the researcher to ensure the validity of the facts. The present study was carried out in three steps involving reconnaissance, sampling/data collection followed by

interpretation of statistics. As every research demands a systematic method and procedure likewise the scholar adopted the following procedure including information regarding source of data, selection of subject, criterion measures, selection of tests, description of test and collection of data etc. The study was carried out in the Nagpur Division of Vidarbha region of Maharashtra State.

2.1 Research Deign

Descriptive (Cross Sectional) research design is used to obtain information concerning the current status of the phenomena and to describe "what exists" with respect to variables or conditions in a situation, which are related to the attitude, motivation of the physical education teachers (working in colleges affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur) vis-à-vis professional sports management.

2.2 Universe of the Study, Sampling Method and Sample Size

All the physical education lecturers working in the colleges affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur were considered as Uuniverse of the study. The sampling was done by following random sampling method. Moreover, 200 physical education teachers were randomly selected from Nagpur division.

2.3 Data Collection and Statistical Analysis

For the purpose of data collection, survey methodology was used in this study. For the purpose of data collection questionnaire was prepared by keeping the objectives of the study in mind. Care was taken to cover all the objectives of the study. The descriptive statistics, such as frequency, mode, percentage, etc. were determined from the collected data. Furthermore, Chi-Square test was used to assess the goodness of fit. The data generated during the study was processed using various statistical tests with the aid of Statistical Package for Social Sciences (SPSS) 18.0 software. The significance level was chosen as 0.05 (or equivalently, 5%

3.0 Results and Discussion

3.1 Experiences in Education Field

Table No. 1: Experience of Physical education teachers in Education Field

Total Experience	No. of Teachers	Percent
Below 5 Yrs	54	27.0
5 to 10 Yrs	25	12.5
10 to 15 Yrs	20	10.0
15 to 20 Yrs	50	25.0
20 to 25 Yrs.	25	12.5
Above 25 Yrs.	26	13.0
Total	200	100.0

Table 1 shows information regarding total experience of the physical education teachers in the Education field in the study area. It was apparent from the information that majority of the physical education teachers had below 5 years total experience in the Education field(27.0%), whereas (25.0%) of physical education teachers had 15 to 20 years of total experience in the education field.

3.2 Gender wise distribution of the Physical education Teachers

Table No. 2: Distribution of the Physical education Teachers on the basis of gender

Gender	No. of Teachers	Percent
Male	165	82.5
Female	35	17.5
Total	200	100.0

Table 2 shows information regarding gender of the Physical Education Teachers in the Education field in Nagpur region. It was apparent from the information that majority (82.5%) of the physical education teachers in Nagpur region are male whereas (17.5%) of physical education teachers are females in the Nagpur region.

3.3 Sport management and business aspect of Sport

Table No. 3: Sport management is a field of education and vocation concerning the business aspect of sport

Response	No. of Teachers	Percent	Chi Square =184.85; df: 4; P <0.05
Strongly Agree	86	43.0	
Agree	88	44.0	
Can't Say	6	3.0	
Disagree	13	6.5	

Strongly Disagree	7	3.5	
Total	200	100.0	

Table 3 shows information of sport management as a field of education and vocation concerning the business aspect of sport in Nagpur region. It was apparent from the information that majority (44.0%), of the physical education teachers in Nagpur region agreed that sport management is a field of education and vocation concerning the business aspect of sport in Nagpur region. whereas (43.0%) of physical education teachers strongly agreed to it.

3.4 Knowledge of Management concepts Finance and Marketing

Table No. 4: Importance of knowledge of management concepts like finance and marketing for successfully conducting various sports events

Response	No. of Teachers	Percent	
Strongly Agree	111	55.5	Chi Square = 254.15; df: 4; P =<0.05
Agree	76	38.0	
Can't Say	4	2.0	
Disagree	7	3.5	
Strongly Disagree	2	1.0	
Total	200	100.0	

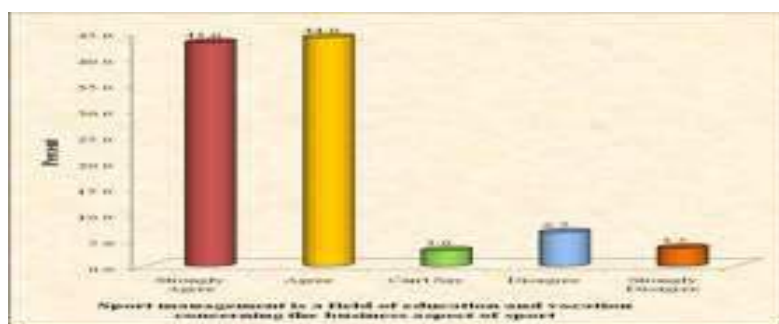
Table 4 shows results regarding the importance of knowledge of management concepts like finance and marketing for successfully conducting various sports events in Nagpur region. It was apparent from the information that majority (55.5%) of the physical education teachers in Nagpur region strongly agreed that the knowledge of the Management concepts of finance and marketing are very important for successfully conducting various sports events.

3.5 Physical education teachers' attitude towards professional sports management

Table No. 5: Information of the physical education teacher's favorable attitude towards professional sports management in the Nagpur region

Response	No. of Teachers	Percent	
Strongly Agree	101	50.5	Chi Square = 221.05; df: 4; P =<0.05
Agree	80	40.0	
Can't Say	15	7.5	
Disagree	4	2.0	
Strongly Disagree	-	-	
Total	200	100.0	

Table 5 shows information regarding the Physical education teachers' attitude towards professional sports management in Nagpur region. It was apparent from the information that majority (50.5%) of the physical education teachers in Nagpur region strongly agreed to their favorable attitude towards professional sports management in the Nagpur region.



4.0 Conclusions

Given the high unemployment rates being experienced by graduates, the importance of employment generation has increased significantly, with greater priority being placed upon the development of entrepreneurial skills across the educational sector and physical education is not an exception. However, there is a limited literature considering the attitude of physical education teacher's vis-à-vis sports management. Hence, in view of the study results, it is concluded that the

sports field is dominated by the males, as the number of female physical education teachers is significantly low. Moreover, a significantly high number of physical education teachers of study agree that sport management is a field of education and vocation concerning the business aspect of sport. In addition it is apparent that most of the teachers feel that knowledge of management concepts with respect to finance and marketing are also very important. Overall it is concluded that the attitude of physical education teachers in Nagpur region is favourable towards professional sports management.

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Leisure Activity For Contemporary Age Group

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Guide
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Abstract

Leisure activity is an activity of body and mind which gives relief from tension and fatigue. When we Continue doing a work or performing an activity regularly and continuously for some hours, it gives us physical and mental fatigue and strain. Leisure activity relieves us of the feeling of fatigue, restores our energy and promotes a sense of joy. Without Leisure activity, life would be dull and miserable. Leisure is that time which man has acquired for himself, in which he has the freedom to do as he pleases. One must be educated to use his leisure in worthy pursuits. Leisure activity means leisure activities chosen by an individual for the purpose of improving his life and living. These activities are of a constructive nature. They are not time-consuming but time-using. They are healthy-physically, mentally and socially.

Keywords: Physical, mental emotional, social disturbances

Introduction

Peoples spend their time in activities of everyday living, work, rest, social duties, and leisure, the latter time being free from prior commitments to physiologic or social needs, a prerequisite of Leisure activity. Leisure has enlarged with increased long life and, for many, with decreased hours spent for physical and economic survival, yet others argue that time pressure has increased for modern people, as they are devoted to lots of tasks. Other factors that account for an increased role of Leisure activity are affluence, population trends, and increased commercialization of Leisure activities offerings. While single discernment is that leisure is just "spare time", time not consumed by the necessities of living, another holds that leisure is a force that allows individuals to believe and imitate on the values and reality that are missed in the activities of daily life, thus being an essential element of personal development and civilization. This direction of consideration has even been extended to the view that leisure is the purpose of work, and a reward in itself and "leisure life" reflects the values and character of a nation. Leisure is well thought-out a human right under the Universal Declaration of Human Rights.

Classification of Leisure activities

- **Physical activities**
These include games, sports, physical exercises, drill, marching, gymnastics, acrobatics etc.
- **Mental and intellectual activities**
These include discussion groups, study circles, debates, recitation, reading, writing, painting modelling, chess, cards, etc.
- **Self-defence and self-discipline activities**
These include NCC, NSS, Territorial Army, home guards, sewa smites, Girl Guide and scouting, etc.
- **Cultural and social activities**
These include drama, music, variety programme, dancing, community service, first aid and celebration of religious, social and national festivals etc. For rural people of Haryana, Saangs (folk plays) Ragnis (folk songs), and rural games like Kabaddi, volleyball and wrestling, etc. are best Leisure activities activities, besides the T. V. & Radio programmes.
- **Art and craft activities**
These include drawing, painting, carpentry, modelling, spinning and weaving, gardening tailoring, doll making, needle-work, embroidery, paper machine, leatherwork, etc.
- **Outdoor activities**
These include outing, sight-seeing, visits, excursions, camping, hiking, mountaineering, etc.
- **Hobbies**
These include stamp collecting, newspaper cutting, photography, picture collecting, album making, picnics, specimen collecting etc.
- **Essential characteristics of Leisure activity**
Education is advocating that the Leisure activity must have the following characteristics to benefit the participant to his fullest.

- **Leisure Time**

To have Leisure activity the activity must be engaged during one's free time. From this point of view, one cannot leave during the working hours and engages in Leisure activities activity.

- **Enjoyable**

The activity engaged in, must be enjoyable not boring one.

- **Satisfaction**

The activity engaged in must bring immediate and direct satisfaction to the individual.

- **Voluntary**

The individual must have chosen Leisure activity activity of his/her own choice. There must be no compulsion.

- **Constructive**

The Leisure activities activity is constructive. It is not harmful to the participant physically, mentally, emotionally, socially or in any other way. It helps one to become a better integrated individual.

- **Socially acceptable**

The Leisure activities activity is socially acceptable and individually beneficial to the participants.

- **Need and Importance of Leisure activity**

No one would ever understand the importance of Leisure activity till the time they experience the values and benefits of it on their own. It is more of a fun embodied in the form of activities to refresh one's body and mind. While type of Leisure activity varies from individual to individual, spending time in something that rock your senses is an experience in itself. The forms of Leisure activity include from simplest of listening to music to the likes of parachuting or bungee jumping. Excess of Leisure activity is called escapism and is something that distract you from your main purpose and affects your time too. A well blended mixture of work and Leisure activity is excellent recipe that keeps you going on the path to success. There are certain fundamental human needs which are required to be satisfied there are objectives of education that need to be achieved; there are obligations of democratic society that need to be fulfilled; there is price of the technological advancement relished by the modern society that has to be paid; and there are factors/changes which have given rise to the wide spread recognition of the need and importance of Leisure activity in the modern life. In the explanation given below an attempt is made to point out why and how Leisure activity is serving increasingly important functions in the life of the individuals, the community and the nation:

- **Leisure activity- A Fundamental Human Need**

Among all the peoples and in all stages of history, man has found outlets for self-expression and personal development in forms of Leisure activity which have a striking similarity. Leisure activity is a common heritage of all people, although its expression takes varied forms. In all lands, play is the chief occupation of young child during his active hours. Through play the child attains growth and experience. It is nature's way of affording outlets to the great biological urge for activity and the means of acquiring skills needed in later life. As he grows older, other forms of activity make increasing demands on his time, energy and attention. In adult life the duties and responsibilities of earning a living, earning for family and maintaining a place in human society tend to relegate Leisure activity to a place of minor significance on the margin of life. Yet the urge for Leisure activity is so fundamental and universal that it cannot be suppressed.

- **Leisure activity contributes to Human Happiness**

Happiness was recognized by our forefathers as a fundamental and worthy objective for every individual. In fact life would be incomplete and drab without Leisure activity, the great leader of Leisure activity Dr. Austin Fox Riggs has rightly expressed that "The function of play is to balance life in relation to work, to afford a refreshing contrast to responsibility and routine, to keep alive the spirit of adventure and that sense of proportion which prevents taking oneself and one's job too seriously and thus to prevent the death of youth, and not infrequently the premature death of the man himself." Among the needs for real living there should be a beauty, knowledge and ideals; books, pictures and music; song, dance and games; travel, adventure and romance, friends, championships, and the exchange of minds. Leisure activity holds its place of importance in modern life because it has

afforded and continues to afford opportunities for the attainment of these basic human needs which provide happiness.

- **Leisure activity and Health**

Leisure activity is vigor's, and is carried in the open air, which makes use of the fundamental muscles and is the best known means of developing and maintaining healthy organs. Certain forms of Leisure activity cause increased circulation, greater respiratory activity, better elimination of wastes and improved digestion. It contributes to emotional stability by affording rest, relaxation and creative activity. Also give tone to the body by a healthful stimulation of the nerve centres. The Value of Leisure activity has been characterized as an insurance policy against nervous disorders, which when collected in middle age, will reimburse hundred fold. Its contribution lies in its value in preventing illness by contributing to healthful, happy living. Leisure activity is also used increasingly in the mental rehabilitation of the individuals. People suffering from mental disorders have been found to react quickly to the stimulus of play, music in particular.

- **Leisure activity and Community Solidarity**

Many forces in modern society tend to separate people into distinct and often hostile groups, based on differences in their economic status, social position, race, creed, nationality, education or cultural background. Consequently, it grows suspicion, distrust, and dislike of our fellowmen and a lack of neighbourliness and unity of interest. Leisure activity affords a common ground/common platform where differences may be forgotten in the joy of participation or achievement Leisure activity is essentially democratic; interest and skill in sports, drama, or art are shared by all groups and classes. The young boy/girl/man/woman that excels in sports or any other activity is recognized regardless of his cast, colour and creed by followers of these activities/ group people.

- **Leisure activity and Safety**

Adequate provision for Leisure activity, especially in the form of play grounds/swimming pools under the supervision of efficient leadership contributes definitely to the reduction of accidents. Leisure activity areas that are properly designed and carefully operated are remarkably safe. Leisure activity departments also contribute public safety by providing and supervising Leisure activity areas by teaching skills that are essential to safe participation in injury prone Leisure activity activities, and by enforcing safety regulations on public Leisure activity areas. In the absence of safe Leisure activity areas there is no safety in street Leisure activity at a crowded place which may cause injuries.

- **Leisure activity and Democracy**

Democracy and Leisure activity are alike in spirit and each tends to promote and strengthen the other. Democracy is committed to giving each individual the opportunity to grow fully, express himself freely and achieve an abundant life. Leisure activity which represents activity freely chosen, offers the individual opportunity for genuine satisfaction, creative expression, and the development of his powers, helps him in attaining the objectives of democracy. It contributes to his effectiveness as a citizen in the modern democratic state.

- **Leisure activity and Education**

In many respects the objectives, methods, and programmes of education and Leisure activity are similar but they are not identical. The fullest development of the individual is sought by both; but Leisure activity affords immediate satisfactions, whereas education aims at a more distant goal. The element of compulsion is present in some aspects of education which is lacking in Leisure activity experiences. Many activities such as sports, music, drama, or arts are common to both programmes, but in education they represent areas in which skills, understanding and appreciation are to be acquired. In the Leisure activity programme however, the activities serve primarily as a means of using and enjoying skills and interests that have already been acquired. Yet educational growth is a part of every satisfying Leisure activity experience. The training for worthy use of leisure was one of the seven objectives of education. To achieve this objective Leisure activity provides opportunities to impart training and activities to use leisure time intelligently in a constructive manner. The early and continuous development of leisure attitude, habits, skills and knowledge, leads towards developing and educated judgment about Leisure activity. The authorized educational institutions have realized that Leisure activities programme affords an excellent medium for carrying on the learning process and for achieving objectives of education. Leisure activity therefore plays an increasing role in the curriculum of formal education and in the extra-curricular programme of an Institution.

- **Leisure activity and Economy**

Leaders in business and industry have long realized that the way in which their employees spend their leisure hours influences effectiveness on the job. In the welfare states of the world hundred of dollars are being spent per year to care for one delinquent whereas a playground, which may prevent children from becoming delinquents, can be operated at an annual cost of only a few dollars per child served. In other words investment made in developing and providing Leisure activities facilities is an investment in the welfare of human being, that pays dividends in dollars/rupees as well as intangible returns.

Conclusion :

From the concluding point of view, Leisure activities activities are very important means of utilizing the spare time in fruitful activities which enliven mind and body and direct their superfluous energies into channels of constructive and national building work. However, as too much of everything is bad, people must not be over-strained while engaged in such activities otherwise their sense of joy would be adversely affected. Thus Leisure activities facilities should be available for all classes of men and women, both in the urban and rural areas and is closely related to such aspects of national life as education, health and social welfare. It is clear that Leisure activity has gained a place of importance in modern life and has pointed out several ways in which it contributes to an individual, community and nation's welfare.

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Application of Advanced Technology to enhance the performance of Wrestlers

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Introduction:

Wrestling is oldest and ancient sport in global. Wrestling is the oldest form of fight with wild animals and opposite group of enemy. Stone Age man needed to enhance physical fitness of him with wrestling practice for bodily fight with enemy and wild animals. Wrestling called the father of all sports activities. Huge history of Wrestling with good records and evidences are available for our references. The first real lines of the development of wrestling date again to the instances of the Sumerians, 5000 years in the past. Wrestling turned into the decisive area of the Pentathlon in ancient Olympic recreation from 708B.C.

Wrestling is a traditional and ancient sport of India. Indian wrestling has a top notch records. In India wrestling is referred to as `Malla-Yudhha`. The facts approximately wrestling is determined in the excellent epic of Indian records. Indian wrestling can be divided into 4 categories i.e. Hanumanti, Beemaseni, Jamuvanti and Jarasandhi Wrestling. Now Indian Wrestlers are finished such a lot of medals in International and Olympic wrestling tournaments.

The use of era has completely changed the sport of wrestling. It became only some years ago that wrestling changed into in its “darkish age” length; information was not as without problems accessible and it become extremely hard to live concerned with the sport as a fan or competitor. Over the previous couple of years, although, it has become a good deal less difficult to follow activities, preserve track of the today's news, and most significantly, progress one's typical talent. Below, this guide will provide an explanation for a few methods you can use generation to stay concerned with the sport you like.

Purpose:

To find out latest information about how cans a use of Advanced Technology is useful to develop Wrestling Skills.

In this modern era following advance or modern technologies are used by wrestlers to develop their wrestling skill, knowledge and achieve the high level of their performance.

Video of latest techniques

The web is a first-rate situation to be taught new expertise and broaden your overall technical potential. Years in the past, the one location a wrestler would have access to educational movies had been through purchase from camps, magazines, and so forth. Now, wrestlers are competent to entry a huge style of tactics totally free through simply browsing via the internet.

There are also a few web pages committed to supplying you with high-degree systems and knowledge from a variety of coaches and wrestlers as a way to charge you. Even though such offerings can show valuable in case you have the money, they may be able to also be very high priced. If you know the way to browse the web for wrestling videos, finding some recent procedures every as soon as in a even as gainer's price you a penny. For example, the Sport videos page presents the very best of system-founded videos offering one of the most world's high-quality coaches and wrestlers...and all without cost!

Although there are probably hundreds of thousands of tutorial movies on the net in these days, now not all potential or approaches may be right for you. When deciding on up a procedure from the internet, always speak to your instruct about it or exhibit your instruct the video you watched. If he thinks the manner could advantage you, he'll help you improve this procedure and show you when and how to use it in blend with other potential

Analyzing Movie

With the rise of private video recording contraptions, documenting and inspecting suit photos has been some of the main ways to increase a wrestler's technical ability. Over the last few years, digital video recorders have come to be more low-priced, making the method of recording and reviewing match pictures much less complicated.

Mobile phone phones have further revolutionized the system of filming and inspecting suits. Now, high-fine digital recorders will also be located in most phones and wrestlers may just without

difficulty elevate their phones with them to competitions for a father or mother, teammate, or educate to document their fits. When the time comes to break down the movie, suits could also be uploaded and saved to a pc or an external rough force, and even streamed to a television for easy viewing! The possibilities are never-ending with such capabilities!

Do not miss a Match

Technological know-how has additionally made it so much easier to be a wrestling fan. During the “darkish a while” of wrestling, in the event you missed a match or occasion, the excellent you could do was name a pal or any one you knew who attended the event to discover know-how. Now, it’s handy to remain up to date along with your favourite wrestlers and the most expected movements by means of the mediums of streaming audio and video, and in addition reside brackets.

Streaming Audio & Video

Many higher tournaments are now providing live streaming audio and/or video for their movements. They mainly circulation the complete event or featured segments, such because the semi-finals or championship finals. Despite the fact that some tournaments is also affiliated with paid websites that host such services, most event streams remain gratis. This is a colossal asset to more recent wrestlers, as looking at probably the most skilled wrestlers will held. When occupied with watching or taking note of a live streaming occasion, be certain to look up the instances where it begins and ends, as good as the time zone!

Are living Brackets

Yet another innovation that has revolutionized documenting and getting access to wrestling results are reside brackets. Brackets support mom and dad, neighbours, and wrestling fanatics comply with the motion, even when they can’t attend the occasion.

Hosts of many tournaments provide updated brackets during the direction of their event. These are ordinarily posted on a staff’s or occasion’s internet site, and can also most likely be determined on wrestling message boards. There are also a few wrestling-specified sites dedicated to offering reside up-to-date brackets and outcome from the biggest tournaments to the smallest local twin meets.

Social Networks

Social networking has related the arena-broad wrestling community like in no way earlier than. In these days, there are countless methods that wrestlers, coaches, and fanatics can use social networking sites to advertise the game of wrestling. Under is a rapid record of approaches you should use social networking web sites to additional your wrestling agenda:

- Stay update with latest and breaking information and news of wrestling
- Information about tournaments, competitions and selection trials of various levels.
- Knowledge of changing in rules and regularities.
- WhatsApp groups are very much help to always connect with wrestling field.

Use the Modern Tools

Modern technology has allowed some fine alterations to occur in wrestling, making it less complicated to be a coach, a competitor, or only a fan. While we all know how a ways it’s improved to this point, there is no telling the place the sport can go from right here if we, as a group, use these instruments to their fullest benefits!

Movement analysis program for sport performance

Motion imaging manufacturer’s line of movement analysis program is able of integrating a type of cameras and configurations, delivering a complete solution for shooting and analyzing recreation pursuits as they arise on the enjoying subject or in a laboratory atmosphere. Within the field, whether or not it’s used as a teaching device or for study, DMAS6 allows digital camera control and seize through using a computing device and camera approach to quickly analyze movement.

Many movements in sporting activities require the motion to be captured with excessive-velocity cameras so to seize essentially the most precise element of every action. In addition, the usage of eye monitoring apparatus is fitting usual in the subject of activity analysis and performance. Whether your interest is in utilizing the captured information as a teaching instrument or in inspecting and preventing damage from repetitive motions in wrestling apply or healthy in championship.

Motion Evaluation

Human motion evaluation is the statement and definition of movements of people. Action evaluation is more often than not implemented in a laboratory. Easy evaluation can contain easy observations. Developed evaluation most commonly includes some form of science, for instance high

velocity, or optical / optoelectronic cameras to generate the kinematics needed for evaluation. As a rule drive plates and/ or electromyography can be combined to furnish entire know-how.

Computer Technology

In sporting activities history, computer systems in sports had been used for the primary time in 1960s, when the most important motive was to accumulate sports information. Exercises pursuits related databases have been created and increased in an effort to launch documentation and dissemination of publications like articles or books that incorporate any kind of capabilities related to exercises science. Within the mid-Seventies the primary group on this discipline called IASI (global association for exercises understanding) was once formally founded. At that time physical activities field was undoubtedly less laptop-oriented, specialists speak about exercises understanding instead than physical activities informatics.

Headquartered on the growth of pc science or technological know-how and the invention of stronger pc hardware in the 1970s, also the true historical past of laptop science in game started out. This was once as well the first time when this time period was once officially used and the initiation of a very primary evolution in physical activities science. In the early levels of this area statistics on biomechanical knowledge, like one of a kind sorts of forces or rates, performed a major function.

Scientists started to research sporting activities games by amassing and looking at such values and elements so as to interpret them. Afterward, with the steady growth of pc hardware - in detailed microprocessor pace – many new scientific and computing paradigms were presented, which were also integrated in laptop science in activity. Designated examples are modelling as well as simulation, but in addition pattern awareness, design, and (physical games) data mining. As yet another influence of this development, the time period 'laptop science in recreation' has been introduced in the encyclopaedia of sporting events science in 2004.

Conclusion

Wrestling is oldest, traditional and ancient sport in world. In the era of advanced technology players and coaches accepted the advanced technology to develop wrestling skills of wrestlers. This advanced technology is very much useful to wrestler for choosing perfect wrestling skill, level of physical fitness, body mind coordination and body movements with their motion analyze.

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Conceptual Application Of Statistical Methods And Techniques In Physical Education And Sports

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Abstract

Application of statistics in physical education and sports is readily applicable to problems that are amenable to quantitative expression and treatment. The validity of certain statistical methods depends on, the nature of data, the level of measurement, the knowledge of the pertinent aspects and lastly, the assumptions made vis-a-vis the sample from which the data are derived. Statistics has powerful muscles that can only serve and not direct.

Keywords: statistics, physical education and sports

Introduction:

The Place of Statistics in Physical education Research

The process of data collection includes classification, grouping, tabulation, Presentation of data. The knowledge of basic statistical concepts and techniques is necessary for an intelligent understanding of the generally of life. Out of the welter of single events. Physical education seek for general trends : out of the vast and confusing variety of individual characters. They continually research for underlying group characters.

Need to study statistics in physical education and sports

- the huge amount of data collected by researcher need simplification so as to render them capable of being commonly understood without much difficulty
- the increasingly quantitative approach currently being employed in physical education research.
- Into the analysis stage of the research process.

Data Analysis

- Data analysis involve coding, content analysis or ethnographic analysis.
- Ina qualitative inquiry analysis facilitates the identification of essential features and the systematic description of inter relationships among them.

Central Tendency

Central Value or Average

A useful way to describe a group as a whole is to find a single number that represents what is “average” or “typical” of that set of data. In physical education research, such a value is known as a measure of central tendency,

Objectives:

- Describe the characteristic of the entire group,
- Facilitates comparison. Without comparison the score is insignificant or uninterruptable.

The Mode

Score Value	F
7	2
6	3
5	4
THE MODE 4	5
3	4
2	3
1	2
Total	23

The Median

Position of median = $N+1 / 2$

THE MEAN

$$\bar{X} = \frac{\sum x}{N}$$

Where

\bar{X} = the mean (read as X bar)

Σ = the sum (expressed as the Greek capital letter sigma)

X = a raw score in a set of scores

N = the total number of score in a set

Measurement of variability

The range

To get a quick but rough measure of variability, we might find what is known as the range R, the difference between the highest and lowest scores in a distribution.

The advantage of the range – its quick and easy computation – is also its most important disadvantage. That is, the range is totally dependent on only two score values, the largest and the smallest cases in a given set of data. As a result, the range usually gives merely a crude index of the variability of a distribution.

The Mean Deviation

$$MD = \frac{\Sigma |X|}{N}$$

Where

MD = the mean deviation

$\Sigma |X|$ = the sum of the absolute deviation (disregarding plus and minus signs)

N = total number of scores

Standard Deviation

Having added the squared deviations from the mean, we might divide this sum by N in order to control for the number of scores involved and obtain what is known as the mean of these squared deviations.

Correlation

Correlation measures the degree of relationship between the variables under the consideration. Ya Lun Chou defines correlation as “the degree of relationship between variables.”

The correlation device helps us in :

- a) Determining whether a relation exists
- b) Testing whether it is significant, and
- c) Establishing the cause and effect relation, if any

Chi-Square (X^2)

This measures the association between two nominal variables or between nominal and ordinal variables.

Regression

Regression measures average relationship between two or more variable in original terms. According to Ya Lun Chou regression means “the nature of the relationship between variables” .

Multiple Correlation and Regression

Where there are two or more than two independent variables, the analysis concerning relationship is known as multiple correlation and the equation describing relationship as the multiple regression equation.

Partial Correlation

Partial correlation measures separately the relationship between two variables in such a way that the effects of other related variables are eliminated. In other words, in partial correlation analysis, we aim at measuring the relation between a dependant variables constant.

Conclusion:

In the context of planning and development, the significance of statistics lies its quality and not in quantity. Therefore, is for those concerned with statistics to pay due attention to designing and adhering to the appropriate methodology for improving the quality of research.

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Increasing self defence level for women empowering through martial arts and yoga

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Abstract:

Role of martial arts, yoga in the Empowerment of Women .martial arts is not only for men but also for women. Women are born weaker in physical strength compared to men. Today people train in the martial arts for a variety of different reasons. Some people study martial arts as a FASHION but its main object is self-defense, many people are taking up Yoga techniques for physical exercise, Yoga is more a path of spiritual growth. The focus of this paper will be highlight power of meditation and physical strength through martial arts and yoga which can empower women.

Introduction;

I would like to begin the paper with a simple quotation given by Buddha, “The secret of health for both mind and body is not to mourn for the past, worry about the future or anticipate troubles but to live in the present moment wisely and earnestly. In India, yoga was the name of one of the highly regarded six schools of Indian Philosophy, which emerged from the Vedic civilization. Yoga has its origins in the search for the ultimate truth and reality; in the questions about the meaning and process of life; in the quest for contentment and well being The martial arts training will have beneficial psychological effects in the form of better control, discipline, attention, and self-defense Martial art is the general term used to refer to the many styles that instruct in the art of hand and foot fighting or self-defence. The martial arts originated in the Far East where they were devised as a defense for unarmed persons against many differing attacks. Through discipline and training, the student learns to coordinate mind and body and can obtain access to extraordinary power and speed of response.

Power of Meditation in Empowering Women

In reality our true identity exists beyond our gender, our gender is only a fractional part of our psyche. Our true identity is not dependent on our biological gender, or our sexual orientation. Consider Swami Inanesvara Bharati's poem, the secret of Shiva and Shakti, in which he describes the unity of masculine (Shiva) and feminine (Shakti) energies: Siva and Shakti are one and the same. There is no place that he is not. There is no place she is not they are one and the same. Although the poem employs gender specific language it emphasizes that the he and she are one. Bharati's verses reflect the non-dualistic philosophies of Vedanta, Yoga and Tantra. The common thread that binds us all men and women alike is known by different names in each tradition. Patanjali calls it Purusha, Pure consciousness. In Tantra, it is dubbed infinite union of shiva and shakti. In the Upanishad, it is described as Atma, the centre of consciousness or the essence of Brahman, the absolute. Although there three traditions use different language to describe the non dual nature of reality, they all suggest a unifying essence at the core of every human being. If we look at sex (in the biological sense) through the lens of non-dualism, gender roles of society appear inconsequential. Despite differences in our physical bodies, there is an understanding that we all ultimately share the exact same energetic potential. Our sexual qualities are a part of us, they do not define us. In nature, the male and female sexes were developed by means of evolution, because the splitting of genetic material into two separate genders was the most efficient way to transfer genetic diversity into the future. It is important to remember that it is consciousness which directs evolution and spawns physical form. Nature may be defined as the collective unconscious of all the species. Consciousness creates evolution, it is not been lead to believe. We are a consciousness which is both dependent and independent of form and as such we are only temporary either male or female our true identity exists beyond our temporal form. The most important thing which meditation does is to help us to understand our true identity. Yoga gives us power or shakti. „Shakti“ has very much been misunderstood. It is not a mere outer self-assertion, control or power over others. Nor is it mere economic or political dominance. Shakti is the inspiration and joy arising from an inner steadiness, contentment and openness to the flow of Divine grace. Shakti is within us. It holds the essence of all existence at an inner and an outer level. Women especially need to cultivate shakti through meditation to enhance the nurturing and calming nature of the home and the hearth which sustain the family, community and society. The feminine principle must be revered and protected to allow universal healing at a deeper emotional level.

Women must be encouraged to cultivate the flow of grace, love and devotion in order to sustain this. Yoga teaches us that spirituality is very much practice in our life. Meditation brings contentment in our life. To live in content is an art. The more skillfully we lead our lives through the shoals and shallows of life, the happier we shall be and the greater our contribution to the welfare of society. In order to effect wholesome change in our bad inclination and tainted thoughts psychological treatment is what is needed. This kind of treatment is given by yoga in spiritual terminology. By means of practicing meditation and being firmly established in our fundamental and eternal form of self luminous point, we remember the infinite and inexhaustible repository of love, peace, bliss and of all divine, virtues who is none other than the supreme soul. Will power is most important power for empowering women and yoga meditation plays an important role in increasing will power of human being. He or she whose will power is weak and whose mind lacks determination cannot accomplish any great deed with adequate success. One might today have a good quality and tomorrow it may be lost. Early morning she takes a vow which she breaks before evening comes. She has the wish to be good, but she lacks the ability to fulfill his wish. So, for success in efforts, it is necessary that will power, i.e the quality of determination, should be improved. But, as she has not the power which she needs, she has to get it from someone. And, for one's own good will power can be got from the supreme power because that supreme power (supreme soul) is all powerful. The method of obtaining power from the supreme power is that of yoga which enables us to acquire will power.

Martial arts;

People have practiced martial arts for centuries. Anthropologists have discovered murals and hieroglyphics in tombs that date back to 3500B.C., which depict the ancient style of hand-to-hand combat used by the Egyptians. One of the earliest recorded forms of martial arts is panchration. This unique style of combat combined punches and kicks with Greek wrestling and boxing movements, and it became a sport in the Olympic games in 684 B.C.

Martial arts were first developed and practiced for the purposes of self-discovery and combat. Kung Fu, which originated in China in 520 A.D., was developed in a Shaolin Monastery as a way to reach enlightenment by conditioning the body, mind, and spirit. Another popular form of martial arts is Karate. Karate was developed by farmers in Okinawa as a way to protect their land and heritage against other invading nations who attempted to dominate and conquer the land and heritage of Okinawa. The weapons used in karate, such as the tonfa and kama were originally tools of agriculture. Today people train in the martial arts for a variety of different reasons. Some people study martial arts as a means of self-defense, but it can be argued that self-defense is not at the forefront of reasons. Many people believe that they run a risk when studying martial arts for the reason of self-defense.

The Ten Principles of Self-Defense:

1. No one invites or deserves to be raped, assaulted, battered or abused.
2. Self-defense strategies emphasize option, choices, risks in taking action to prevent violence or deal with a violent situation.
3. Fighting back to defend yourself is an option, not an obligation.
4. Commitment counts. If you decide to use physical self-defense in a situation, commit to the defense and put everything into it.
5. Spirit first, technique second. Your attitude in taking a stand against an assault is more important than the particular technique you use.
6. Your brain and your voice are your best self-defense weapons.
7. Remember to breathe. Threatening situations stimulate your adrenaline; remembering to breathe relaxes you and enables you to think through the panic.
8. Effective self-defense uses strength against weakness (your strength against an attacker's weakness), and hard against soft (your muscles against an attacker's vulnerable body parts).
9. Your goals are to prevent, avoid, resist, escape, and survive violence.
10. In a struggle or fight to defend yourself, there are no rules (you do what you must to survive) and there are no guarantees (outcomes are unpredictable).

Conclusion;

Empirical evidence supports anecdotal reports about the positive psychosocial consequences of martial arts practice. Numerous investigations into this topic over three decades show that the practice of martial arts promotes psychological changes and increase physical strength. The practice of martial arts can be used to increase self-confidence and self-efficacy. Since our first efforts in teaching women's self-defense, we have known that it was a powerful instrument of resistance in the violence against women movement. The self-defense student learns how to use her voice and body language to practice self-efficacy. She also develops feelings of competency, such as her ability to perform physical techniques or de-escalate potentially. Yoga gives us a divine eye, which enable us to see the gem hidden in the body i.e the soul beneath the skin, which is neither male nor female. Hence every human being has the same potential quality and same every whether it is male or female. In other words soul consciousness is the solution of all kind gender bias in the society.

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Role Of Nutrition & Dietetics For Player & Fitness

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“ Eat healthy, be wealthy”

Food is the basic necessity of life. In Ayurveda, we find instructions regarding the appropriate choice of food for quick recovery as well as for preventing further diseases and complications. Nutrition for sports is a discipline which applies principles derived not only from nutritional, but also biochemical and physiologic scientific knowledge for the purpose of promoting optimal performance while remaining healthy. The body's ability to deliver and utilize oxygen in sufficient quantities to meet the demands of increasing levels of exercise is called fitness. People who exercise have increased muscle strength due to hypertrophy then due to hyperplasia. The human body must continuously be supplied with energy to perform its many complex functions. Two metabolic systems supply energy for the body—one dependent on oxygen (aerobic metabolism) and the other able to function without oxygen (anaerobic metabolism). Both of these systems provide energy, however, the use of one system over the other depends on the duration, intensity and type of physical activity.

Objectives Of The Study :-

- 1) What is nutrition and dietetics
- 2) To study the Nutritional Requirement for sports.
- 3) To study the Food Requirement for sports.
- 4) To provide adequate nutrients in terms of energy, protein, vitamins and minerals according to the individual needs.
- 5) To suggest Dietary Guidelines.

Nutrition And Dietetics :-

As defined earlier, nutrition is the science of food and its interaction with an organism to promote and maintain health. Food is the substance taken into the body that will help meet the body's need for energy, maintenance of health.

Optimum Nutrition means that the person is receiving and utilizing essential nutrients in proper proportions as required by the body while also providing a reserve.

Dietetics is the branch of therapeutics which puts into practice the application of the principles of nutrition to diet in relation to health.

The American Dietetics Association defines dietetics as “a profession in which there is an integration and application of principles derived from the science of food, nutrition, management, communication, biological, physiological, behavioral and social sciences to achieve and maintain optimal human health.”

Nutritional Requirements :-

An athlete's energy and nutrient requirements vary with weight, height, age, sex and metabolic rate. Emotional and physical stress of training and competition, combined with hectic travel schedules affect dietary intake, adequate caloric and essential nutrient intake must be planned carefully to meet requirements for training and fitness.

Energy :-

Even for the athlete, there is no significantly greater need for protein or fat than for a nonactive person. Carbohydrate is the fuel of preference and the critical food stuff for the active person. This carbohydrate should be complex in a form at an intake that will not only meet increased energy needs but also supply added vitamins and minerals.

Carbohydrate :-

Major nutrient for energy support in exercise is carbohydrate. Carbohydrate should contribute to 55% or more of the daily caloric intake. Complex carbohydrates are preferable to simple ones. They take longer to digest, provide a more sustained source of blood glucose, and are metabolized preferentially into glycogen. Simple sugars on the other hand are less efficient to maintain the body's glycogen stores. They are mainly converted to fatty acids stored as fat rather than as glycogen. Simple

carbohydrates also provoke a sharper insulin response, contributing to the dangers of subsequent hypoglycemia. In addition, complex carbohydrates supply needed fibre, vitamins and minerals.

Protein :-

Protein requirements of athletes, particularly those engaged in strength and power events may be increased above those of sedentary people for the following reasons :

- Amino acids are used to repair muscle trauma that results from repeated muscle contractions and for the repairs to injuries to muscle fibers. Due to this protein requirements are increased.
- To remodel muscle tissue in response to strength training. There is an increase in muscle bulk due to resistance training. Protein requirements of the beginner strength athletes to maintain nitrogen balance appear to be at the higher end of the range compared to that of elite strength athletes. Research shows that those who are adopted to strength training may not need a very high intake of protein.
- Prolonged exercise increases oxidation of amino acids for fuel. Protein use as an energy substrate increases during high intensity, long duration endurance activity. Protein makes a greater contribution to total energy production during endurance exercise when muscle glycogen levels are low.

Protein intake equal to 15-20 per cent of total calories will meet the protein requirements of most athletes. No protein supplementation above this level required for any kind of sport. Consuming more protein than 2.0g/kg body weight results in increased protein oxidation, urea formation, diuresis and can increase risk for dehydration.

Fat :

In the presence of O₂, beta-oxidation of fatty acids provides acetyl groups to feed into the energy producing citric acid cycle. The rate at which this can take place is determined in part by the rate of mobilization of fatty acids from storage. Free fatty acids are stored with glycerol as triglycerides in the body's adipose tissue. The enzyme lipoprotein lipase mobilizes these stores of fatty acids. This lipase is stimulated by exercise. Its activity is affected by levels of hormones also implicated in exercise, especially growth hormone and epinephrine.

It is important to recognize fat as a substrate is not exogenous from the diet directly but endogenous from body fat stores. Dietary fat is not necessary to maintain fat stores, since excess kilocalories will be stored as fat regardless of their dietary source. It is important to have some fat in the diet, especially a source of the essential fatty acid, linoleic acid. Since the heart muscle prefers fatty acids especially linoleic acid, as an energy source. Compulsive runners who have virtually eliminated fat from their diets have linoleic acid deficiency, death may result from cardiac arrest in some cases. Although it is necessary to include some fat in the diet, the total amount should not exceed 20-25 per cent of the total daily kilocaloric intake.

Vitamins And Minerals :-

Increased exercise levels are not correlated with increased dietary needs for vitamins or minerals, with the possible exception of riboflavin. In general, exercise may well increase the body's efficient use of vitamins and minerals. Therapeutic iron supplements may be necessary for some athletes who experience "Sports anaemia".

Owing to increased energy requirements and exercise induced production of free radicals, higher amounts of B-vitamins and vitamins with anti-oxidant properties are required for athletes. The B-vitamin requirement is 1 mg / 1000 kcal for thiamine and riboflavin and 10-20 mg / 1000 kcal for niacin. B complex deficiency can lead to fatigue, muscle soreness, apathy and loss of cognitive function. Intake of retinol may be placed at 1000-2000 micrograms per day. Vitamin E, which is an antioxidant should be taken at the level of 1020 IU. Vitamin C, which is also essential for iron absorption, intake should be 100-200 mg / day.

There is an increased risk of stress fracture among athletes which is associated with lower calcium intake and lower bone density. Female athletes should have an adequate supply of calcium to avoid calcium loss from bones. The calcium intake of 1-2 g per day is recommended. Dairy products, especially low – fat choices are the best sources of calcium.

Consuming adequate amounts of iron is essential for an optimal aerobic endurance performance especially for the female athletes and athletes between 13 and 19 year of age. Female athletes, who train heavily, have a high incidence of amenorrhea and thus conserve iron stores. In any case, iron intake should not be less than 50-75 mg for sports men and 60-100 mg for sports women.

Food Requirements :-

When exercise begins, insulin release is suppressed, and catecholamine secretion is increased. Carbohydrate feedings during intermittent exercise such as soccer or basketball have also been shown to be beneficial. The recommendation is to take in approximately 30-60 g of carbohydrates each hour, beginning early in the exercise. This can be accomplished at the same time as fluid replenishment. As for pre-exercise conditions, fructose ingestion (as the only carbohydrate source) during exercise has been associated with gastrointestinal distress and is not associated with performance improvement.

Meal Pattern Before, During And After The Event**Before the event**

- Eat 2-4 hours before the event small comfortable amount.
- High in carbohydrate and fluids
- Low in fat, fibre and gas producing foods
- Within 15 min before a long event, the athlete should drink. 100-200 ml of water or fluid.

During the event

- Drink only fluids
- If the event is all day, high carbohydrate, low fat foods are taken

After the event

- Plenty of carbohydrate
- Lot of fluid, sports drinks or juices
- Easy to digest

Follow Dietary Guidelines :-

There is no miracle food or supplement that can supply, all nutritional needs.

Dietary Guidelines :-

- 1) Follow the advise of your physician, nutritionist and coach.
- 2) An adequate, balanced diet is necessary for an effective performance but does not guarantee it because nutrition is but one aspect of performance.
- 3) Ingestion of one or more nutrients in amounts much greater than body needs will not enhance performance.
- 4) Loss of water in sweat is accompanied by a very small loss of salt relative to the amount in blood. Hence additional salt tablets need not be taken.
- 5) The best way to prevent dehydration is to drink water before, during and after exercise.
- 6) Exercising immediately after a meal could lead to nausea, vomiting, distension and cramping.
- 7) A rapidly digested meal low in fat, moderately low in protein and high in complex carbohydrate should be eaten 3 to 5 hours before the competition.
- 8) Coffee, tea, beer and caffeine containing soft drinks should be avoided. The increased carbon-dioxide levels in the digestive tract after taking carbonated beverages reduce the body's urge to take additional fluids. Soft drinks provide only empty calories.

Conclusion :-

- Dietetics is a science that deal with the adequacy of diets during normal life cycle.
- Besides proper training, motivation and determination, a good judicious diet is all that is needed to excel in active sports.
- They also provides adequate amounts of proteins, carbohydrates, fats and specially vitamins and minerals to meet their requirements.
- Follow Dietary Guidelines there is no miracle food or supplement that can supply all nutritional needs.

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Role of coach in achieving Athlete's Peak Performance

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Introduction

Since the beginning of sport competition, athletes have sought to acquire the skills and knowledge of sport in order to become "champions." As sport evolved into organized activity, coaches began working more closely with athletes on sport skill development. Education and training programs have been created, over the past 30 years, in an effort to assist coaches and athletes with the development of methods and strategies for achieving peak performance. When designing a coaching education program, however, one must ask what do coaches need to know; what are the essential elements of athletic coaching?

Risk Management

Participating in sports involves a certain level of risk, even when reasonable precautions have been implemented. Coaches have some level of responsibility for all aspects of their athletic program. For example, coaches need to be concerned about the welfare of their players and the maintenance of athletic equipment and facilities. These responsibilities fall under the umbrella of risk management and the controlled evaluation of the athletic environment.

Therefore, coaches should be aware of the factors associated with risk management. Coaches can limit the amount of risk involved with their programs by implementing effective management processes and staying up-to-date on changes occurring in the external environment. It is important for coaches to have a positive outlook concerning the future of their programs

Injury Prevention

Unfortunately, competing in athletics increases the opportunity to experience a sport injury. The Centers for Disease Control and Prevention indicated more than 1.4 million injuries occurred in high school sport participants during the 2005-06 school year.

Therefore, coaches should gain knowledge concerning first aid care and the prevention of injury. When coaches teach their athletes sport skills, these athletes must develop precise technical movements in order to produce peak athletic performance. Such movements, along with the demands placed on athletes' muscles when accelerating, decelerating, or changing direction, increase the risk of injury.

Communication

Besides interacting with medical personnel, coaches must be exceptional communicators with their athletes in order to be effective teachers. The ability to communicate is a critical component in becoming a successful coach and developing elite athletes. "Communication is a process through which two entities exchange formal messages in a common code by using one or more transmission channel".. Coaching without effective communication is like trying to play basketball without a ball; it just is not a successful endeavor.

Coaches can be extremely knowledgeable in the technical skills of the sport and have the perfect game plan; but if they cannot communicate this information to their team, the likelihood of a victory will be greatly reduced.

'You could go into the coach's office and he would be all ears (p. 6).' This helped to create an atmosphere that was comfortable for the athletes: 'You never felt like you were stepping over a boundary if you were to walk into their office and ask them a question (p. 9)' (14, as cited in 4).

Nutrition

As coaches establish a positive relationship with their athletes, many athletes begin to realize the importance of training the body physically in order to produce peak performances. Hence, every coach should consider performance enhancement to be the number one priority when developing a strength and conditioning program. However, without adequate nutrition, training results may be suboptimal due to a lack of recovery and reduced ability to perform due to depleted energy. Therefore, nutrition is the foundation of performance enhancement. Without optimal nutrition, athletes cannot compete to their full potential.

Goal Setting

When completing a strength and conditioning program, a coach may instruct an athlete to complete “another repetition.” Coaches have a responsibility to prepare their athletes physically and mentally for athletic competition. Thus, many athletes develop a desire to produce successful performance and gain mastery of any task completed. For example, an athlete may not only want to win the contest but may also aspire to perform sport skills exceptionally well in order to produce peak performance. Without question, coaches have an opportunity to assist athletes with performance enhancement.

As a positive athlete-coach relationship develops, many athletes begin considering their coaches to be role models. Hence, coaches should communicate with their athletes in order to assist them with the development of personal goals. An athlete’s personal goals can lead to skill development and ultimately peak performance. In a professional manner, a coach may provide an athlete with constructive feedback concerning skill development, safety, nutrition, or injury prevention. If the goal is accomplished, establish another short-term SMART goal. If the goal is not achieved, reevaluate the athlete’s performance and assist with developing another short-term SMART goal. Make certain the athlete possesses the skill and motivation to successfully pursue the established long-term SMART goal.

How Coaches Should Apply This Information

As described in previous sections, coaching education includes knowledge from several disciplines. The nature of a coach’s job is affected by the athlete’s stage of development. This will determine what kind of knowledge the coach needs and how it will be applied. The final piece of the coaching puzzle centers on how to make the coaching process athlete centered. No matter what the specific training discipline, a coach needs to understand the stages of athletic development in addition to knowledge of how individuals grow and mature.

Training Stages

Athletes progress through several training stages as they get older and become more accomplished in their sport. For the most part training stages are age related (3,5). Each stage’s curriculum should help athletes transition to the next stage by providing what they will need at their present training stage as well as preparing them for the proceeding one.

Early vs. Late Maturing Athletes Most countries use an athlete development system that focuses on performance outcomes. This involves getting as many young athletes as possible into training programs and then focusing on the elite performers. The problem with this method is that sport governing bodies rely on early maturing youngsters—those who are simply bigger and stronger than their peers and who, almost inevitably, perform better in sport. However, only an estimated 25% of youngsters identified as ‘elite athletes’ at an early age were identified the same way at a later date; indicating late maturers can also become ‘elite athletes’ if given enough time to develop (22).

The outcome model tends to quickly discard those who do not measure up, and while this may not be by design it happens often enough to be considered a characteristic of the model itself. In the outcome model young athletes are treated as small adults, following the same training and competition patterns as older athletes. Late maturers are discouraged from continued sport participation since the outcome model rewards early maturers with more coach contact, encouragement, and social recognition due to their early ability (i.e., athletic-talent).

Conclusion

Ultimately, coaches should be passionate about teaching sport skills to their athletes. Coaches must be life-long learners of sport in order to properly train their athletes for peak performance. As the profession of sport coaching has evolved and sport has become a multi-billion dollar industry, many coaches have discovered sport incorporates both physical and mental training. Therefore, in today’s sports world, several disciplines have been integrated into the science and art of training athletes.

Based on the guidance and leadership of Dr. Thomas P. Rosandich, the United States Sports Academy has created the American Coaching Patterns; a six-course program, embracing six basic fundamentals of training: stamina, strength, flexibility, agility, speed, and skill. This article presented information which coaches should utilize when training their athletes. These six courses, which comprise the American Coaching Patterns, emphasize sports administration, coaching methods, sports medicine, strength and conditioning, sports psychology, and athlete development. Training athletes to become “champions” in sport, and more importantly life, can provide many individuals with opportunities to produce peak performance.

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Study Of Aggressive Tendency Between Individual And Team Game Players

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Abstract:

The main purpose of this study was to investigate the aggressive tendency among individual and team game players. For the present study subjects were selected from individual and team game players of Jammu University for the collection of data. The standard Questionnaire of Aggression was constructed by R. L. Bhardwaj and by M. Basavanna, Professor, Dept. of Psychology, was used to know the aggression level of individual and team game players. The data was collected from the 60 subjects, 30 subjects from individual Player and 30 subjects were selected from team game players of Jammu University after that the collected data was analyzed by comparing the means of individual and team game players and was again statistically analyzed by applying t-test to check the significant difference among selected variables. The subjects were selected by using purposive sampling method. It is hypothesized that there will be significant difference between aggressive tendency of individual and team game players.

Keywords: Aggressive tendency, individual and team game players.

Introduction:

Aggression is a part of human behaviour and is necessary for an individual to live and struggle for higher achievements. Struggle for supremacy, dominance, and excellence in sports obviously involves aggression. Aggression in one form or the other is inevitable and inescapable in sports activities. When hostility takes over aggression, the situation becomes alarming and it becomes an anti-social behaviour.

Aggression is as old as the human race beginning with Cain's murder of Abel and extending throughout history. People have fought each other in tribal wars, ethnic and religious wars, and in worldwide conflicts. Today, man continues exterminate to large segments of humanity or prepares to do so. It appears that the technical and culture "advance" of man has led to move violently, aggressive destructive behavior which has led to remarkable increase in research devoted to this phenomenon in the last twenty years.

Methodology

Source of Data:

The main purpose of this study was to investigate the aggressive tendency among individual and team game players. It was hypothesized that there would be significant difference between aggressive tendency of individual and team game players of Kashmir university.

Selection of Subject:

Sixty (60) subjects were selected for the collection of data which include Thirty (30) subjects from Individual Players and remaining Thirty (30) subjects were selected from team game players departments of Jammu University, (J&K)

Sampling Method:

The subjects were selected by simple random sampling method.

Criterion Measures:

Following are the criterion measures which were responsible for collection of data, to testing the hypothesis.

Aggression Tendency:

The standard Questionnaire of Aggression constructed by R. L. Bhardwaj scale, was used to know the aggression level of individual and team game players of Jammu University which contains 28 items.

Collection of Data:

For the collection of data, the subjects are given full administration of the tests which is used for the collection of data in the study.

Statistical Analysis and Interpretation of Data:

The standard Questionnaire of Aggression was constructed by R. L. Bhardwaj was used to know the aggression level of individual and team game players. The data was collected from the 60 subjects i.e. 30 from individual and 30 from team game players of Jammu University after that the

collected data was analyzed by comparing the means of individual and team game players and was again statistically analyzed by applying t-test to check the significant difference among selected variables.

Level of Significance:

To test the hypothesis the level of significance was set at 0.05 level of confidence which was considered adequate and reliable for the purpose of this study.

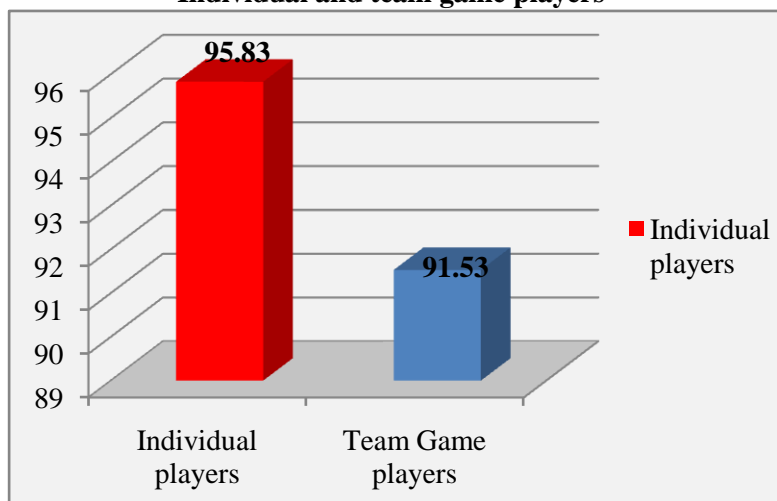
Findings:

The data was collected from the 60 subjects, 30 from individual and 30 from team game players of Jammu University after that the collected data was analyzed by comparing the means of individual and team game players and was again statistically analyzed by applying t-test to check the significant difference among selected variables. The mean of individual and team game players also the researcher found the standard deviation of individual and team game players and also their mean difference is been given in the table. The level of significance for the present study is kept at 0.05. This is used for testing of hypothesis which was given by the researcher previously.

Table-1
Comparison of Aggression Between individual and team game players

Group	Mean	S.D.	M.D.	S.E.	O.T.	T.T.
Individual players	95.83	12.16	4.3	8.69	0.49	2.00
Team Game players	91.53	20.62				

Graph-2
Graphical Representation of Mean Difference of Aggression Tendency between Individual and team game players



Conclusion:

The researcher initially pre assumed that there will be a significant difference in the aggressive tendency between individual and team game players of Jammu University. Because for both cases the calculated 't' is less than tabular 't' at the level of significance 0.05, so the pre assumed has been rejected.

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Boosting Hydration in Sports

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Despite the commonly known importance of water in our bodies, many athletes do not seriously consider the effects of hydration during and after athletic performance.

Water maintains blood volume, regulates body temperature and is involved in muscle contractions (1). Perspiring is regulated by the autonomic nervous system and is controlled unconsciously by the hypothalamus; the structure in the brain that regulates the body's status quo. Sweating is the body's primary way of maintaining optimal body temperature (1). Consuming liquids replenishes the fluids lost during exercise. Restoring fluids maintains normal muscle function, helps prevent a decrease in physical performance and reduces the risk of heat stress (1). The symptoms of exertional heat stress are tachycardia, hypotension, hyperventilation, vomiting, diarrhea, seizures and coma (4). Despite these serious effects, many athletes do not seriously consider the effects of hydration on athletic performance.

A loss of sweat equal to 2% of body weight causes a noticeable decrease of physical and mental performance. Losses of 5% or more of body weight during physical activities may decrease the capacity for work by roughly 30% (6). In addition to dehydration affecting the capacity for work, losses of perspiration greater than 2% of body weight increases the risk of nausea, diarrhea, vomiting and gastrointestinal problems (1).

Dehydration may cause a reduction in blood volume, decreased skin blood flow, decreased sweat rate, decreased heat dissipation, increased core temperature and an increased rate of glycogen use. The most likely physiological mechanism affecting a person's maximal aerobic power (VO₂ max) and hence athletic performance is one's maximal cardiac output (2). As dehydration reduces plasma volume and therefore increases blood viscosity, central venous pressure decreases and reduces the amount of blood returning to the heart. During peak athletic intensity, these changes can decrease the amount of blood entering the heart during diastole; the phase in the cardiac cycle where the heart relaxes and fills with blood. Less blood entering the heart during diastole decreases the amount of blood that may possibly leave the heart during systole, the phase where the heart contracts, consequently decreasing cardiac output (2).

An increased core temperature during a dehydrated state is accompanied by a larger aromatic amine response, possibly leading to an increased rate of glycogen breakdown in muscles. An increased rate of glycogen breakdown may contribute to an increased level of fatigue in the muscles used during the athletic activity (2). The breakdown of glycogen during exercise leads to an intracellular increase of acids, principally lactic acid. As lactic acid is produced by the breakdown of glycogen, pH decreases causing skeletal muscle fatigue (5).

Moreover to skeletal muscle fatigue, research from the University of Connecticut tested athletes' muscle growth during resistance training over a period of three different states: Euhydrated, moderately dehydrated (2.5% of body weight) and critically dehydrated (5% of body weight). Researchers drew the athletes' blood and examined certain molecules directly correlated to muscle growth. The athletes in a dehydrated state had an increased level of cortisol, which competes for certain enzymatic receptors in the body reducing the level of testosterone, the primary hormone required for muscle growth. Additionally, increased cortisol concentration reduces the amount of testosterone released as a response to resistance-specific weight training (3).

Studies on water intake are limited in data compared to intake of other nutrients. There is no ideal amount of water that should be consumed. Despite the lacking data, the Institute of Medicine has declared an estimated ideal volume of water that people should consumed daily. Male adults above the age of 18 should consume about 4 litres. Females above the age of 18 should drink about 3 litres of water.

Water is involved in the majority of chemical reactions involved in athletic performance. It is important that athletes are hydrated before, during and after physical activity to achieve their maximal physical performance.

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Calcium And Bone Health

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Abstract :

Calcium is principally required for normal growth and development of the skeleton. It can make bones strong, help blood clot, muscles contract, and regulate the heart's rhythm. Good sources of dietary Calcium include milk and milk products, green leafy vegetables, certain fish, oatmeal and other cereals etc. The absorption of calcium is influenced by certain foods. The daily requirement of calcium varies with age. Also, the safe levels of calcium is different for different age groups. Calcium deficiency can lead to various mood disorders and osteoporosis. Besides calcium, other nutrients like proteins, Vit. D, Vit. K, Vit. B and homocysteins etc are essential for bone health.

Introduction:

Calcium is a major building-block of our bone tissue & is required for normal growth and development of the skeleton. The calcium in our bones also acts as a 'reservoir' for maintaining calcium levels in the blood, which is essential for healthy nerve and muscle functioning. Almost every cell in the body uses calcium in some way, including the nervous system, muscles, and heart. It is an essential building block for lifelong bone health in both men and women. Its deficiency in diet can contribute to anxiety, depression, and sleep difficulties besides bone disorders like osteoporosis.

Health Benefits of Calcium:

Among other things, our body uses calcium to build healthy bones and teeth, keep them strong, help our blood clot, our muscles contract, and regulate the heart's rhythm. If we don't get enough calcium in our diet, our body will take calcium from our bones to ensure normal cell function, which can lead to weakened bones or osteoporosis. Calcium deficiency can also lead to, or exacerbate, mood problems such as irritability, anxiety, depression, and difficulty sleeping. Getting enough calcium in our diet is not just important for older people. It's also vital for children, teens, and young adults since we continue building bone mass into our mid-20s. From then on, we can lose bone mass without sufficient calcium in our diets. But no matter our age, it's important to take care of our bones and get the right amount of calcium from the food that we eat.

Recommended Dietary allowance of calcium (RDA):

It is the amount of calcium required by our body daily and it changes at different stages in our lives. Calcium requirements are high in our teenage years with the rapid growth of the skeleton, and during this time, our body's efficiency in absorbing calcium from food increases. With age, however, this absorption efficiency declines, which is one of the reasons why elderly also need to consume higher amounts of calcium.

The Food and Nutrition Board (FNB) of the Institute of Medicine of the National Academies provides guidelines on the amount of calcium needed each day.

Recommended Daily Allowance in Milligrams (mg)

Life Stage Group	Recommended Daily Calcium Intake
Women and men 9 to 18 years	1,300 mg
Women and men 19 to 50 years	1,000 mg
Women 51 to 70 years	1,200 mg
Men 51 to 70 years	1,000 mg
Women and men > 70 years	1,200 mg
Pregnant or nursing women 14 to 18 years	1,300 mg
Pregnant or nursing women 19 to 50 years	1,000 mg

Besides the amount of calcium in the diet, the absorption of dietary calcium in foods is also a critical factor in determining the availability of calcium for bone development and maintenance. Thus, there is a need to identify food components and/or functional food ingredients that may positively

influence calcium absorption to ensure that calcium bioavailability from foods can be optimized. This approach may be of particular value in individuals who fail to achieve the dietary recommended level of calcium and/or in those individuals with a low efficiency of intestinal absorption of calcium.

Foods to consume for enhanced calcium absorption:

A number of food constituents have been suggested as potential enhancers of calcium absorption. Without Vitamin D, our bodies cannot effectively absorb calcium, which is essential to good bone health. Individual milk components, such as lactose, lactulose, and casein phosphopeptides enhance calcium absorption. In addition, there is a growing body of evidence to show that nondigestible oligosaccharides can improve calcium absorption in some life-stage groups.

Foods to Avoid:

Some foods can inhibit the absorption of calcium. Chocolate contains oxalates, which bind to calcium and can both prevent absorption and increase risk for developing kidney stones. Other foods high in oxalates include berries, grapes, sweet potatoes and eggplant. Caffeine and salt can increase calcium loss from the body and should not be taken in excessive amounts. Alcohol should also be taken in moderation as it detracts from bone health and is associated with falls and fractures.

Good food sources of calcium

Good sources of calcium include dairy products, leafy green vegetables, certain fish, oatmeal and other grains, tofu, cabbage, summer squash, green beans, garlic, sea vegetables and calcium-fortified foods such as cereals and orange juice.

Good food sources of calcium	
Food	Milligrams (mg) per serving
Yogurt, plain, low fat, 8 ounces	415
Mozzarella, part skim, 1.5 ounces	333
Cheddar cheese, 1.5 ounces	307
Cottage cheese, (1% milk fat), 8 ounces	138
Cheese, cream, regular, 1 tablespoon	14
Milk, nonfat, 8 ounces	299
Milk, reduced-fat (2% milk fat), 8 ounces	293
Milk, whole (3.25% milk fat), 8 ounces	276
Soy milk, calcium-fortified, 8 ounces	299
Ready-to-eat cereal, calcium-fortified, 1 cup	100-1,000
Sardines, canned in oil, with bones, 3 ounces	325
Salmon, pink, canned, solids with bone, 3 ounces	181
Tofu, firm, made with calcium sulfate, 1/2 cup	253
Tofu, soft, made with calcium sulfate, 1/2 cup	138
Turnip greens, fresh, boiled, 1/2 cup	99
Chinese cabbage, bok choy, raw, shredded, 1 cup	74
Broccoli, raw, 1/2 cup	21
Source: <i>National Institutes of Health</i>	

Safe Levels of Calcium:

Too much calcium can be harmful and cause serious side effects. In addition to establishing RDA guidelines, the FNB has established Tolerable Upper Intake Levels (ULs). These represent the highest levels of calcium that can be consumed by the average individual and found to be safe.

These ULs are important guidelines for people who may require different dosages of these supplements. For example, people who live in areas with little sun, those with darker skin, and people who are obese may need more Vitamin D than the recommended daily amount.

Note that ULs are not levels that people should try to reach — they are the safe limits based on current research. When intake goes beyond the ULs listed below, the risk for serious side effects increases.

Upper Safe Limit for Calcium Intake

Life Stage	Upper Safe Limit
Birth to 6 months	1,000 mg
Infants 7-12 months	1,500 mg
Children 1-8 years	2,500 mg
Children 9-18 years	3,000 mg
Adults 19-50 years	2,500 mg
Adults 51 years and older	2,000 mg
Pregnant and breastfeeding teens	3,000 mg
Pregnant and breastfeeding adults	2,500 mg

Reprinted and adapted with permission from Tables S-1 and S-2, Dietary Reference Intakes for Calcium and Vitamin D, 2011 by the National Academy of Sciences, Courtesy of the National Academies Press, Washington, D.C.

More foods in the U.S. are being fortified with calcium awareness of the importance of these nutrient for bone health is growing. But it should be noted that too much calcium from dietary supplements can also cause adverse health effects, including kidney stones, higher risks for heart problems, and possibly increased risk for prostate cancer.

Calcium and Vitamin D are essential for good bone health, but must be consumed safely. If you are not sure what intake levels are right for you and your health needs, be sure to talk to your doctor.

Calcium and Osteoporosis relation:

Osteoporosis is a “silent” disease characterized by loss of bone mass. Due to weakened bones, fractures become commonplace, which leads to serious health risks. People with osteoporosis often don’t recover after a fall and it is the second most common cause of death in women, mostly those aged 60 and older. Men are also at risk of developing osteoporosis, but typically 5 to 10 years later than women. For most people, osteoporosis is preventable, and getting enough calcium in diet is the first place to start.

Other foods and nutrients important for bone health:

- Protein Adequate dietary protein is essential for optimal bone mass gain during childhood and adolescence, and preserving bone mass with ageing.
- Fruits and vegetables Fruits and vegetables contain a whole array of vitamins, minerals, antioxidants, and alkaline salts, some or all of which can have a beneficial effect on bone. Studies.
- Vitamin K is required for the correct mineralization of bones.
- Zinc is required for bone tissue renewal and mineralization.
- B vitamins and homocysteine may be linked to lower bone density and higher risk of hip fracture in older persons as suggested by some studies.

Key tips for building and maintaining healthy bones:

- ✓ Ensure an adequate calcium intake which meets the relevant dietary recommendations in the country or region concerned, at all stages of your life.
- ✓ Maintain a sufficient supply of vitamin D through adequate, safe exposure to the sun, through diet, or through supplements.

- ✓ Enjoy a balanced, nutritious diet including adequate protein, and plenty of fresh fruits and vegetables for both bone and general health benefits.
- ✓ Safeguard a healthy body weight, as being underweight is a strong risk factor for osteoporosis (body mass index less than 18.5 kg/m²).
- ✓ Move it or lose it: Weight bearing exercise (e.g. walking, running, gym, strength training, dancing) helps build bone mass and strength in the young, maintains bone density in adults, and slows down bone loss in the elderly.
- ✓ Avoid smoking as it hampers the work of bone-building cells and increases the risk of fracture.
- ✓ Avoid excessive alcohol consumption, as high intakes have been linked to increased risk of hip and other osteoporotic fractures.
- ✓ Use salt and caffeine in moderation, as these can promote calcium loss from the body, especially if calcium intake is inadequate.

Conclusion:

Calcium is an essential nutrient for healthy bones. It should be ensured that our body is getting sufficient amount of calcium as per daily requirements. We should eat plenty of green leafy vegetables, milk and milk products and other calcium rich foods to satisfy the calcium requirement of our body. But it should also be noted that calcium can be harmful to the body in excessive amounts.

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Comparative Study Of Motor Abilities Between Tribal And Non-Tribal Sports-Persons

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Abstract:

The purpose of the present investigation was to compare the motor abilities between tribal and non-tribal sports-persons. The population for the present study is the tribal and non-tribal sports person participating in various tournaments. For the present study 60 subjects were selected from Sant Gadge Baba Amravati University of Vidarbha Region who participated in Inter Collegiate Tournaments. Age of subjects was ranging between 20 to 22 years. The 60 subjects were selected by purposive sampling method. criterion measures adopted for the study measuring the motor fitness components are namely speed, agility and muscular endurance. The data was analyzed using 't' test to compare the motor fitness components of tribal and non-tribal sports-person. P value of less than 0.05 was accepted as indicating significant difference between the compared values. On the basis of the results obtained from the present investigation it may be concluded that tribal and non-tribal sports persons did not differ significantly on speed, but significantly difference found in agility and muscular endurance.

Keywords: motor abilities, tribal and non-tribal sports-person

Introduction:

Motor ability is one of the important aspects for physical activities. A totally fit individual must have the motor ability. The components of motor ability are speed, endurance, explosive power, agility, co-ordination (Reaction time, Movement time, Flexibility), strength (Grip strength, Leg Strength, Shoulder Strength) etc., Motor ability reflects an individual's present ability to perform motor skills. Motor ability reflects an individual present ability. The immediate state of the individual to perform in a wide range of motor skills. Motor ability is a general quality that can facilitate more specific performances. Almost all physical activities incorporate one or more of the elements of force, quickness, duration, and the range of motion. When a given exercise is required to overcome resistance it is called a strength exercise. When quickness and high frequency is maximized it is referred to as a speed exercise. If distance, duration or the numbers of repetitions are high, an endurance exercise is performed. On the other hand, if the range of motion is maximized a flexibility movement is being performed. And finally, when in a given exercise a high degree of complexity is required this is known as a co-ordination exercise. Some athletes are more capable than others of performing such exercises. They are said to have "talent" for that type of activity. But this talent is largely genetic; it is rather inherited from one's family. Strength, speed, and endurance are inherited abilities which play the most important role in one's chances of reaching high levels of performance. Therefore they are called dominant motor or bio-motor abilities. The term "motor" refers to movement, whereas the prefix "bio" is added to illustrate the biological importance of these three abilities.[1]

Methodology:

The population for the present study is the tribal and non-tribal sports person participating in various tournaments. For the present study 60 subjects were selected from Sant Gadge Baba Amravati University of Vidarbha Region who participated in Inter Collegiate Tournaments. Age of subjects was ranging between 20 to 22 years. The 60 subjects were selected by purposive sampling method.

Criterion measures:

The criterion measures adopted for the study measuring the motor fitness components are given below.

1. **Speed:** Speed was measured by administering 50 meter dash.
2. **Agility:** Agility was measured by administering 4×10 yard Shuttle run.
3. **Muscular endurance:** Muscular endurance was by administering bent-knee sit-ups.

The data for motor fitness components was collected by 50 meter dash, 4×10 yard shuttle, bent-knee sit-ups. After that collected data was put in Microsoft Excel 2007 to develop Master Chart and then 't' test was used for this statistical treatment.

Statistical analysis:

The data was analyzed using ‘t’ test to compare the motor fitness components of tribal and non-tribal sports-person. P value of less than 0.05 was accepted as indicating significant difference between the compared values.

Table-1: Indicating mean difference of speed between tribal and non-tribal sports persons

Group	N	Mean	SD	SE	MD	Ot	df	Tt
Tribal sports-persons	30	8.33	0.63	0.18	0.28	1.55	58	2.00
Non-tribal sports-persons	30	8.06	0.76					

*Significant at 0.05 level of significance

Tab ‘t’ = 2.00

It may be observed from the above table that significant difference was not found between tribal and non-tribal sports persons on speed as the obtained value of ‘t’ has been found 1.55 which is considerably lesser than the tabled value of ‘t’ (2.00) at 0.05 level of confidence with 58 degree of freedom.

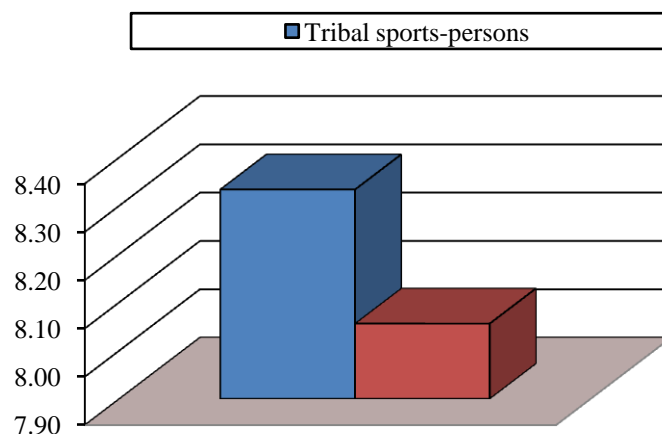


Figure 1: Graphical representation of comparison of mean of the speed between tribal and non-tribal sports persons

Table-2: Indicating mean difference of agility between tribal and non-tribal sports persons

Group	N	Mean	SD	SE	MD	Ot	df	Tt
Tribal sports-persons	30	12.41	1.11	0.35	1.20	3.47	58	2.01
Non-tribal sports-persons	30	11.20	1.54					

*Significant at 0.05 level of significance

Tab ‘t’ = 2.00

It may be observed from the above table no.2 that significant difference was found between tribal and non-tribal sports persons on agility as the obtained value of ‘t’ has been found 3.47 which is considerably more than the tabled value of ‘t’ (2.00) at 0.05 level of confidence with 58 degree of freedom.

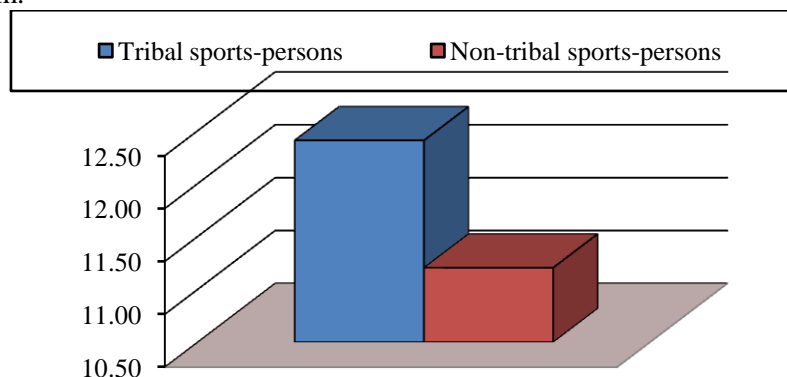


Figure 2: Graphical representation of comparison of mean of the agility between tribal and non-tribal sports persons

Table-3: Indicating mean difference of muscular endurance between tribal and non-tribal sports persons

Group	N	Mean	SD	SE	MD	Ot	df	Tt
Tribal sports-persons	30	34.40	4.55	1.13	2.87	2.54	58	2.01
Non-tribal sports-persons	30	31.53	4.18					

*Significant at 0.05 level of significance

Tab 't' = 2.00

It may be observed from the above table no.3 that significant difference was found between tribal and non-tribal sports persons on muscular endurance as the obtained value of 't' has been found 2.54 which is considerably more than the tabled value of 't' (2.00) at 0.05 level of confidence with 58 degree of freedom.

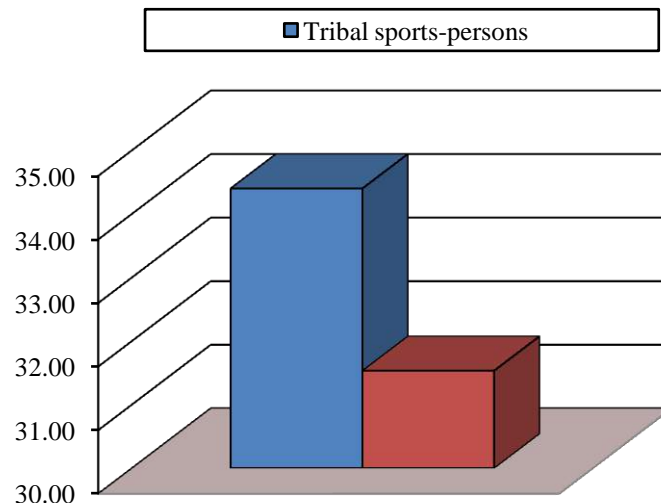


Figure 3: Graphical representation of comparison of mean of the muscular endurance between tribal and non-tribal sports persons

Conclusion:

On the basis of the results obtained from the present investigation it may be concluded that tribal and non-tribal sports persons did not differ significantly on speed, but significantly difference found in agility and muscular endurance.

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Impact of Kapalbhathi and Pranayama on Vital Capacity among Obese Boys

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Abstract:

The purpose of this investigation was to study the impact of Kapalbhathi and Pranayama on Vital Capacity among Obese Boys. The sources of the data were the students of Amravati City. For the present study 50 male subjects were selected randomly. The age group of the subjects ranged between 16 to 18 years. Vital Capacity to measure Micro spirometer, Disposable cardboard moth pieces, sprit and cotton used and is measured in liters. The selected subjects were randomly divided into two groups, (Kapalbhathi and Pranayama) experimental group (A) and control group (B). The experimental group under goes six weeks Kapalbhathi and Pranayama training programme, for six days in a week, for forty minutes per day, under the supervision of the guide. The control group does not undergo any specific training during the period of six week programme. The data were analyzed by applying paired 't'-test to determine the significant difference between the pre-test and post-test means of all the two groups viz. Experimental Group-A and Control Group-B separately. There was significant difference in vital capacity between pre and post test in experimental group-(A) in forced vital capacity (FVC), forced rpiratory volume in first second (FEV1) and peak expiratory flow rate (PEFR) between pre and post test. It was concluded that six weeks of kapalbhathi and Pranayama training programme was found to be effective in bringing about significant improvement in respect to Vital Capacity. It is recommended that a similar study may be undertaken for female students at variousage levels.

Keywords: Kapalbhathi, Pranayama, Vital Capacity, Obese

Introduction:

Prana passes through thousands of subtle energy glands (called Nadhi) and the centers of energy (called chakra) of the body and creates aura around the body. The quantity and quality of life force determine the mood of the human. If the life force is strong and its flow is steady and stable, then the mind remains happy, calm and enthusiastic. But due to lack of knowledge and not focus on breath, man's nadia can cause obstruction of life. Such a situation creates fear, anxiety, and fear in the mind. Every trouble first arises in the subtle. Therefore, a disease is first produced in pranshakti.

Methodology:

The sources of the data were the students of Amravati City. For the present study 50 male subjects were selected randomly. The age group of the subjects ranged between 16 to 18 years. Vital Capacity to measure Micro spirometer, Disposable cardboard moth pieces, sprit and cotton used and is measured in liters. The selected subjects were randomly divided into two groups, (Kapalbhathi and Pranayama) experimental group (A) and control group (B). The experimental group under goes six weeks Kapalbhathi and Pranayama training programme, for six days in a week, for forty minutes per day, under the supervision of the guide. The control group does not undergo any specific training during the period of six week programme.

Statistical analysis:

The data were analyzed by applying paired 't'-test to determine the significant difference between the pre-test and post-test means of all the two groups viz. Experimental Group-A and Control Group-B separately.

Table – 1: Summary of mean, standard deviation and t-ratio of vital capacity of experimental group-A and control group-B

Variable	Group	Test	Mean	SD	N	df	Ot	Tt
FVC	B	Pre	2.808	0.488	25	24	1.736	2.064
		Post	2.889	0.473	25			
	A	Pre	2.767	0.445	25	24	5.378*	2.064
		Post	3.111	0.451	25			
FEV1	B	Pre	2.754	0.465	25	24	1.757	2.064

		Post	2.846	0.406	25			
	A	Pre	2.721	0.435	25	24	9.097*	2.064
		Post	3.222	0.484	25			
PEFR	B	Pre	346.760	49.046	25	24	0.393	2.064
		Post	342.040	53.240	25			
	A	Pre	336.680	64.551	25	24	6.977*	2.064
		Post	384.960	75.594	25			

**Experimental Group=(A) and Control Group= (B), Forced Vital Capacity =(FVC), Forced Rpxiratory Volume in First Second=(FEV1) and Peak Expiratory Flow Rate=(PEFR).

Table-1: shows that the significant difference in forced vital capacity (FVC) between pre and post test in experimental group. The obtained ‘t’ value of Group (A) 5.378 and Group (B) 1.736 in that Group (A) are significant but Group (B) is not significant to the table value of 2.064 with 24 degree of freedom.

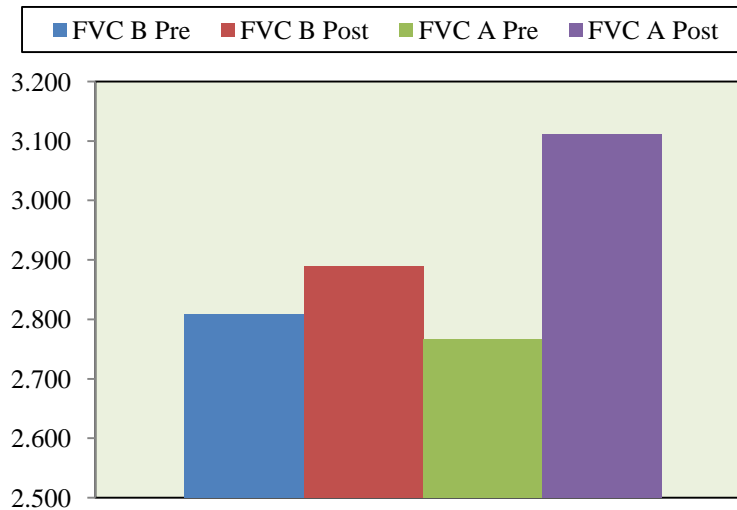


Table-1: Mean difference between experimental-A and Control Group-B in forced vital capacity (FVC)

Table-1: shows that the significant difference in Forced Rpxiratory Volume in First Second (FEV1) between pre and post test in experimental group. The obtained ‘t’ value of Group (A) 9.097 and Group (B) 1.757 in that Group (A) are significant but Group (B) is not significant to the table value of 2.064 with 24 degree of freedom.

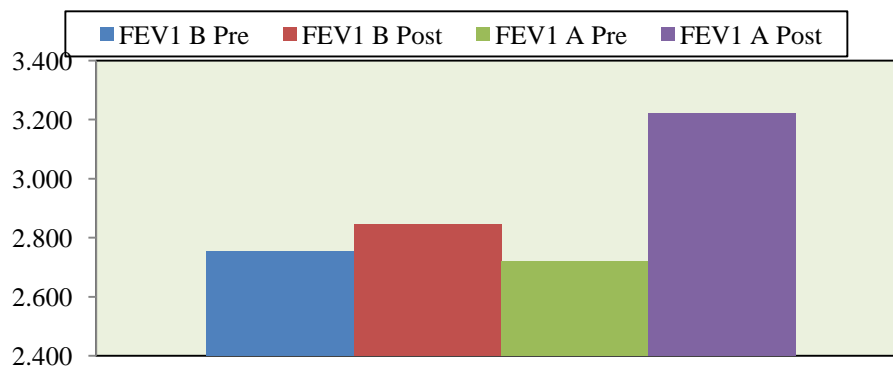


Table-2: Mean difference between experimental-A and Control Group-B in Forced Rpxiratory Volume in First Second (FEV1)

Table-1: shows that the significant difference in Peak Expiratory Flow Rate=(PEFR) between pre and post test in experimental group. The obtained 't' value of Group (A) 6.977 and Group (B) 0.393 in that Group (A) are significant but Group (B) is not significant to the table value of 2.064 with 24 degree of freedom.

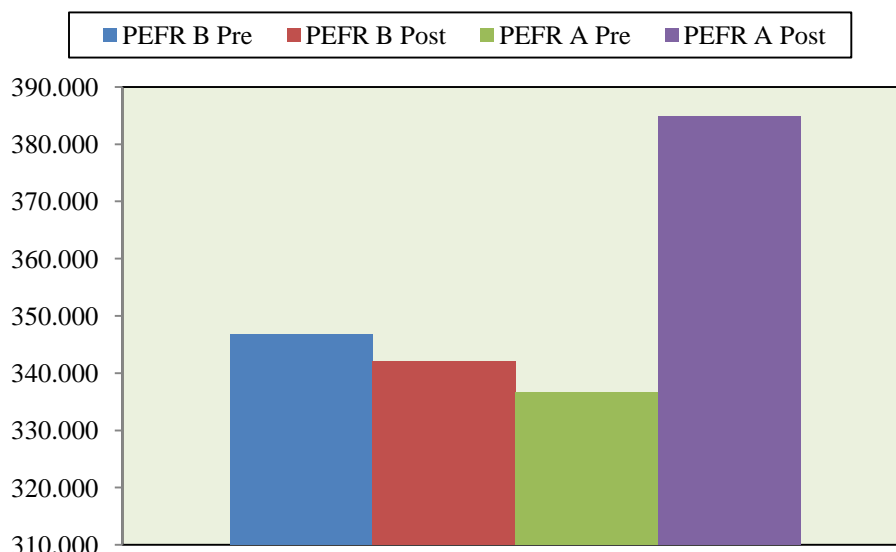


Table-3: Mean difference between experimental-A and Control Group-B in Peak Expiratory Flow Rate (PEFR)

Conclusion:

On the basis of the result drawn with the mentioned methodology the following conclusion were sougheed out. There was significant difference in vital capacity between pre and post test in experimental group-(A) in forced vital capacity (FVC), forced rpiratory volume in first second (FEV1) and peak expiratory flow rate (PEFR) between pre and post test. It was concluded that six weeks of kapalbhathi and Pranayama training programme was found to be effective in bringing about significant improvement in respect to Vital Capacity. It is recommended that a similar study may be undertaken for female students at variousage levels.

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Comparative Study of Selected Physical Fitness and Motor Fitness Variables Amongst

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Abstract:

The purpose of the present study was to compare Physical Fitness and Motor Fitness between Hockey & cricketers. For the present study total 50 collegiate Hockey and Cricket male players (25 each from Hockey & Cricket) were selected from Amravati city. Their Age range was limited to 18-25yrs. Data was collected by using bench mark tests for physical fitness variables. To analyze the collected data of the two groups statistical techniques i.e. mean, standard deviation & 't' test was applied for comparison. To assess the significant difference between two means & testing hypothesis significant level of confidence was fixed at 0.05 level with 48 degree of freedom. From the analysis of result, it was concluded that hockey players are better than Cricket players in Cardiovascular Endurance, Muscular Endurance, Muscular Strength, and Flexibility and Dynamic Balance, while the Cricket players are better than Hockey players in Speed, Agility, Muscular Power, Static Balance, Eye-Hand Co-ordination. The result also reveals that there was significant difference in only Muscular Endurance and Cardiovascular Endurance between Hockey and Cricket players at 0.05 level of significance

Key words: Physical Fitness, Motor Fitness, Cardiovascular and Muscular Endurance, Speed, Agility, Flexibility, Muscular strength, Muscular power, Static and Dynamic Balance, and Co-ordination.

Introduction:

We are living in a modern era of Globalization, where everything has become faster than before, so is the life of human beings. There is no place for slow mover. Excessive stress and strain are the predominant features of the modern society, we live in. As a result of this excessive stress and strain man has become restless and tense. This restlessness is clearly manifested through the disturbance in family, society and ultimately resulting in the chaos in the Nation. Therefore the fountainhead of this anguish and fatigue, that is, the man, needs urgent attention if the world as a whole is to be made healthy and peaceful.

In English there are many sayings regarding health like "Sound mind in Sound Body" and "Health is Wealth". Sound body is the most precious of all the things in life. Health is directly related with our livelihood. A person having good health has a life full of enjoyment and has a capacity to do all sort of work for the development and progress of himself, and for the community as a whole. But the person having bad health has to face all sorts of troubles. If we lose our health then we lose everything.

And so to keep ourselves healthy, the most important thing we need is proper exercise for all the parts of the body and proper nutrition and nourishment to provide required quantity of calories to do all the daily physical activities and hence Physical Fitness and Balance Diet plays an important role in human life.

Physical fitness is the ability to function effectively in physical work, training, and other activities and still have enough energy left over to handle any emergencies which may arise. Physical fitness involves the performance of the heart and lungs, and the muscle of the body.

Physical fitness is used in two close meanings - General fitness and Specific (Motor) fitness.

General Physical fitness:

Physical fitness is the result of regular exercise, proper diet and nutrition, and proper rest for physical recovery within the parameters allowed by the genome.

The components of physical fitness are 1.Cardio respiratory endurance (C.R.), 2.Muscular Strength, 3.Muscular Endurance, 4.Flexibility, Body composition.

Specific (Motor) fitness:

Specific or task oriented fitness is a person's ability to perform in a specific activity with a reasonable efficiency. Motor ability is defined as one's inherent potential to perform vigorous motor (muscular) activities with best speed, agility, power, balance, coordination and quick reaction time. Motor fitness is a comprehensive term which includes all four physical fitness components i.e. Muscular strength, muscular endurance, cardio-vascular endurance and flexibility, one health related

component i.e. Body composition and five performance related components, i.e. Muscular power, speed, agility, balance and reaction time, important mainly for the success in sports.

Cricket and Hockey are the most popular and main games in the colleges affiliated to S.G.B. Amravati University and so there is tough competition in Inter-collegiate Cricket and Hockey tournaments. This was reflected in the performance of University Hockey and Cricket teams. Since 2010, Hockey and Cricket team of S.G.B. Amravati University were regularly striking at Inter-Varsity tournaments with their outstanding performance and most of the times they were qualified or All India inter-Varsity tournaments. Both hockey and cricket game required high level of fitness to perform well on the higher level.

Researcher is working in the field since last 30 years and he saw that every game require different type of physical and motor fitness and so to compare the fitness of Hockey and Cricket players researcher undertook the topic titled as “A comparative study of selected physical fitness and Motor fitness variables of Hockey and Cricket players of S.G.B. Amravati University” for study.

Methodology:

For the present study researcher selected 25 players of each game i.e. Hockey and Cricket, who were at least once selected in S.G.B. Amravati University team in last three year and are currently playing in Inter-Collegiately completion. The age of the players were ranged between 18 to 25 years. For the study, the researcher selected the following criterion measure.

1. General Fitness related variables such as Cardiovascular Endurance , Muscular Endurance, Muscular Strength, and Flexibility and
2. Motor fitness related variables such as Speed, Agility, Muscular Power, Static Balance, Dynamic Balance, Eye-Hand Co-ordination.

The following test is administered to collect data.

- | | |
|------------------------------|--|
| 1. Muscular Strength | : Pull-ups |
| 2. Muscular Endurance | : Bent knee sit-ups |
| 3. Cardio-vascular Endurance | : 600 yard walk/run |
| 4. Flexibility | : Sit and reach test |
| 5. Muscular power | : Standing broad jump |
| 6. Speed | : 50 yard dash |
| 7. Agility | : 4 x 10 Yard Shuttle run |
| 8. Static Balance | : Stork stand test |
| 9. Dynamic Balance | : The nelson balance beam test |
| 10. Co-ordination test | : Eye hand co-ordination test
(ball transfer) |

Statistical techniques used for analysis:

The data was analyzed and compared with the help of statistical procedure in which Mean, Standard Deviation, and ‘t’ test were used to compare data. The level of significance was 0.05 and the degree of freedom was 48.

Results and discussion:

The results and findings of the test are analyzed in table-1 as follows. Tabulated value of ‘t’ at 0.05 level of significance and 48 degree of freedom is 2.01.

TABLE 1.

S.N.	Variables	Tests	Hockey Players Mean	Cricket Players Mean	Hockey Players S.D.	Cricket Players S.D.	Df	‘t’Ratio
01	Muscular Strength	Pull Ups	9.18	8.45	3	1.64	48	0.97
02	Muscular Endurance	Bent Knee Sit Ups	59.5	55	5.73	4.36	48	2.9
03	Cardio-vascular Endurance	600 Yard Run	106.18	119	8	4.58	48	6.36
04	Flexibility	Sit and Reach	24	23	2.58	3.32	48	1.09

		test						
05	Muscular Power	Standing Broad Jump	2.25	2.27	0.24	0.17	48	0.31
06	Speed	50 Yard Dash	6.72	6.61	0.36	0.82		0.53
07	Agility	4x10 Yard Shuttle Run	10.35	10.29	0.58	0.42	48	0.32
08	Static Balance	Stork Stand Test	22.72	23.95	4.319	3.483	48	0.98
09	Dynamic Balance	Modified Bass Test	80	78	6.428	6.553	48	1
10	Co-ordination test	Ball Transfer	17.68	17.27	1.31	1.43	48	0.97

Discussion:

When we analyze Table.No.1, it clearly shows that, there was no any significance difference found in Physical Fitness and Motor Fitness variables except Muscular Endurance and Cardiovascular endurance. According to Table No. 1 when we compare the means it was found that the Hockey players are better than Cricket players in Cardiovascular Endurance , Muscular Endurance, Muscular Strength, and Flexibility and Dynamic Balance, while the Cricket players are better than Hockey players in Speed, Agility, Muscular Power, Static Balance, Eye-Hand Co-ordination.

Conclusions:

The results of the study it was concluded that hockey players are better than Cricket players in Cardiovascular Endurance , Muscular Endurance, Muscular Strength, and Flexibility and Dynamic Balance, while the Cricket players are better than Hockey players in Speed, Agility, Muscular Power, Static Balance, Eye-Hand Co-ordination. The result also reveals that there was significant difference in only Muscular Endurance and Cardiovascular Endurance between Hockey and Cricket players at 0.05 level of significance.

Recommendations:

Similar studies can be conducted among females and in other sports & games. This study is useful to coaches & trainers to prepare conditioning programs to improve the motor abilities of the cricketers & Hockey players.

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Safety And First Aid In Sports Injury

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Abstract

Sports are natural, physical process which includes running, jumping, throwing, climbing, dozing, skipping etc. While performing these activities there is a possibility of injuries anytime and anywhere, any skill of sports if done by wrong method, injuries can happen. The reason behind all injuries depends upon circumstances and wrong uses of sports equipment are directly or indirectly responsible for it. In any condition we must win, such type of feelings may one of the reasons of injuries of sports. Sports help us to develop physical, mental, and intellectual health. We must know how to balance these three factors. Then only we can achieve success in sports & education. If we cannot keep proper balance in the above factors, then we have to face injuries. We cannot avoid sports injuries totally but we can minimize sports injuries by considering and playing sports as fun and recreation. Generally while living normal life injuries can take place but in sports area the possibility of injuries are more.

Introduction

Everyday, millions of people in the world participate in games and sports activities, from soccer fields to softball diamonds and kabbadi courts. It's called playing, but sports activities are more than play. Participation in sports improves physical fitness, coordination, and self-discipline, and gives children/individuals valuable opportunities to learn teamwork. Games and sports can also result in injuries-some minor, some serious, and still others resulting in lifelong medical problems.

Young athletes/sports persons taking part in games/sports/physical activities are in majority and they are not merely small adults. Their bones, muscles, tendons and ligaments are still growing which makes them more susceptible to injury. Growth plates- the areas of developing cartilage where bone growth occurs in youngsters- are weaker than the nearby ligaments and tendons. What is often a bruise or sprain in an adult can be a potentially serious growth plate injury in a young athlete/ sports person.

First aid is the provision of initial care for an illness or injury. It is usually performed by non-expert, but trained personnel to a sick or injured until definitive medical treatment can be accessed. Certain self-limiting illnesses or minor injuries may not require further medical care past the first aid intervention. It generally consists of a series of simple and in some cases, potentially life saving techniques that an individual can be trained to perform with minimal equipment you may vitally need, sometimes the results of self-injury can be safely treated at home.

Meaning of First Aid:-

The terms 'First Aid' was adopted officially in England for the first time in 1879 by the St. John Ambulance Association.-First aid is a combination of simple but quite effective and active measures to prevent possible complications. First Aid means the treatment given to the casualty till proper medical aid comes. In other words, the first aid is the process of carrying out the essential emergency treatment of an injury/illness in order to benefit the casualty till the proper medical services are rendered. First aid is the immediate and temporary care given to the victim of an accident or sudden illness. Purpose of First Aid till the medical aid is given by the competent and qualified medical personnel.

Common Sports Injuries

Some of the common sports injuries are sprain, strain, dislocation, abrasion, and contusion.

First Aid For Common Sports Injuries

Approach to Doctor: Listen to your body. Several signs will indicate to you when you should see your doctor. You must approach your doctor in case of the following:

- A) If pain severe or persists
 - B) Inability to move the injured part of your body
 - C) The injury does not appear to be healing
- Immediate Care of Injuries** The immediate care of common sports injuries (sprain, strain, dislocation, abrasion, and contusion, etc) consists of a four-step program that should followed as soon as an injury occurs, whether or not you go to a physician. The four part program is called RICE and stand for REST, ICE, COMPRESSION, AND ELEVATION.

A) Rest

As soon as an injury occurs. It is important to stop the activity immediately. Prolonged delay in stopping the activity could cause further damage to the injured part. When a body part has become injured, the body reacts with an inflammatory process, which causes swelling, redness, local increase of heat in the area, pain and malfunction. The degree of each of these depends upon the severity of the injury.

B) Ice

Put ice in the injured part as soon as possible after the injury. Ice or cold, specifically, controls swelling by constricting the blood and lymph vessels, decreases muscle spasm and decreases some of the discomfort and pain caused by the inflammation. By reducing the swelling that collects around the injured area, the rehabilitation time will be lessened and you will be able to return to your sport more quickly. The ice should be applied for 20-30 minutes. It could be in the form of an ice bag, chemical packs, frozen vegetables, can of soda, snow, etc. It should be applied every hour for the next several hours.

C) Compression

Compression also helps to limit swelling in the injured area. The compression should be applied concurrently with the cold treatment. After the ice treatment, a dry elastic wrap or tape should be applied comfortably firm not too tight to cut off circulation, or too loose to allow further swelling. If lack of sensation or numbness is felt, the wrap is probably too tight. The use of sponge pads around bony prominences will insure even pressure around the injured part. The wrap should be loosened while going to bed, but worn continuously until the swelling has subsided (about 48-72 hours).

D) Elevation

The fourth part of the treatment is to elevate the injured part while being compressed. In elevating support should be placed under the entire limb. The height should be above the level of the HEART to help drain the excess fluid from the injured area. While sleeping, the compression wrap should be loosened and the foot of the bed or mattress raised by some suitable object or the head of the bed or mattress raised for the upper extremity injuries. RICE should be continued for at least 48-72 hours. Under no circumstances during this time • should any form of heat be applied, including excessive time in hot showers or baths. That would just increase the swelling and inflammation. When you are sure that the swelling has stopped. Give yourself an extra day of RICE. During the acute stage of the injury, no other activity should be performed. Your body has been injured and will need all the help it can to heal the injury. This means optimal healing conditions- proper nutrition, your normal amount of sleep, and a positive attitude. The same amount of effort you placed in your sports/athletic endeavors should be placed in your rehabilitation program.

Conclusion

As we discussed above, we cannot avoid sports injuries totally but we can minimize sports injuries by considering the four part program -RICE. And some immediate cares.

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Does Drug Abuse in Sports have Psychological Effects on Athletes?

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Introduction

The issue of abuse, illicit trafficking in drugs is so serious that the 26th day of June, every year is to be observed as international Day Against Drug Abuse and Illicit Trafficking in Drugs. United Nations General Assembly declared this day. It was first held in Vienna, Austria in June, 1987.

Medication of all kinds are used by athletes both prescription and non-prescription. Drug abuse is usually regarded as the taking of drugs in a way, which deviates from approved medical or social patterns. The nonmedical use of drugs may represent a means of escape from the monotony of living or may be the individual's attempt to cope psychologically with stress of live. A continuous use of drugs leads to a state of dependence on it, characterized by an urge to take drug on a continuous basis to maintain the new pathological state of wellbeing. According to Noois, (undated). All drugs with all abuse potential act on the central nervous system and either stimulate or depress it. The central nervous system depressants suppress the higher centers of exhibitory control and thus causes an uninhibited release phenomenon, which is manifested as euphoria Stimulants are usually used as mood elevators and produce a state of well being postponed fatigue and improve task performance. This is one of the reasons why resort to the use of such drugs to enhance athletic fit. By that the aim of physical prowess which sports competition is supposed to achieve is defeated. The commonly abused drugs in this category include amphetamines and cocaine. Drug and alcohol abuse is becoming common amongst our youths from where our athletes are drawn from.

Symptoms of Drug Abuse

Symptoms of drug abuse as outlined by Gbadamosi (1988) amongst others are sleeplessness, aggressiveness, easily irritated, truancy and petty money stealing. Others include depression, indifference to personal image etc. These are signs that when they appear in sportsmen and women the danger of control arises because they are used to pattern. This poses a lot of danger for the athlete because with the passage of time, the chances of drug dependence increase and drug abuse becomes a way of live for the athletes

Sometimes, it could lead to criminal state, insubordination to their coaches and constituted authority. Breaking of training rules, general indiscipline in camp. Athletes involved are usually the ones that are often broke in monetary terms amongst their friends in camp as they use their money to purchase drugs, and look for money for the next round of drugs to keep them going. According to Bisaria, (undated) since we cannot have a society free of drugs, it is a question of use and abuse, regulation and control, socialization and acculturation to curb themenace. Commonly abused Drugs and their Effects on the Athlete

Drugs Used to Enhance Performance in Sports

a. Restorative Drugs: These are drugs used to treat injuries, illness and in some cases to suppress pain. They are therefore taken with the sole aim of restoring the athlete's normal prowess. In this group are analgesics or anodynes pain relieving drugs, muscle relaxants etc.

b. Addictive Drugs: This is usually taken with the aim of stimulating the athlete's performance beyond his/her normal or natural limits. These drugs, which enhance performance is termed "Doping".

The use of drugs, especially doping has acquired widespread use in professional sports especially, wrestling, weight lifting, boxing, football, cycling etc. It has also reared its ugly head in the ranks and file of Amateur Sports. Akono (1989) reporting the current International Olympic committee rules stated that there are five known banned groups of pharmacological substances or preparations. These include

1. Psychostimulants:

Examples are Amphetamines, phenmetazine, cocaine, fenclonamine etc. These are substances that act primary on the psychic, producing a stimulating effect and subdue weakness thereby causing a feeling of increased ability.

2. Sympathomimetic Amines (Amino substances):

Examples are Ephedrine, Methoxyphenamine, Methylephedrine and Chemically or Pharmacologically related compounds. These are through the nervous flow respiration and other physiological system there aiding sports performance.

3. Central nervous System Stimulators:

Examples are Nikethamide, Bemigrade etc. These drugs improve the reaction time or reaction to situations of an athlete.

4. **Narcotic analgesics:** Examples are Morphine, Heroin, etc. Their drugs reduces the effect of pain on the body. It is usually for combat sportsmen and women

5. Anabolic Steroids:

Examples are chostebol neramol etc. this unlike the first four groups act in a chronic manner in what Medical Doctors will describe as the anabolic effect. This is a Effects of Doping on athletes Psychological Implications to the Athlete

Doping not only creases a situation of unequal participation during competitive sports but also disrupts its moral and ethical basis, which affects the athletes psychologically. The disgrace meted out to Ben Johnson, of Canada is a typical example. He had advantage over other participants. On the other hand, he was caught and banned for two years, which psychologically affected him and tarnish his image worldwide.

Performance usually deteriorates with constant use of most drugs. This makes the athlete get to his peak very easily. This may cause easy frustration on the part of athletes. Consequently, the athlete will become very hostile to both coach and sometimes teammates who are not involved in drugs use. Indiscipline of all sorts result, which leads to breaking of bounds. Hiding out of camps without permission seeking for where to secure drug which he depends on.

1. Distortion of the senses: Such as disturbance in timing of effects.
2. False confidence about one's clarity of thinking.
3. Hampered performance in many ways including clumsiness in movement
4. Misinterpretation of things perceived often referred to as illusions
5. Observing things, which others do not observe, often called hallucination. This can affect any of the five sense organs
6. Delusion or abnormal thoughts, usually feelings of persecution or of grandiosity (that is of unwarranted greatness).

These psychological factors apart from affecting performance in sports adversely have its attendant dangers to the family in particular and to the society in general. If the affected persons are Secondary School Students/athletes the kind of experiment at the Sports Institute of Rivers State, Isaka, where sports and academics are combined. Such students may not complete their academics career. They become danger to live with both in school and at home. They become truant in most of their dealings with other people.

Suggestions

1. Anti-doping control is very necessary in the country now. This involves special measure directed at the detection of doping drugs and substances used by athletes to enhance performance.
2. Proper dissemination of information on the harmful effects of drugs in sports should be encouraged in the country.
3. Counseling both in and out of school can reduce drug use to an extent
4. Since religion plays a major role in the life of individuals in the country, religious leaders should assist in educating their followers on the harmful effects of drugs use in sports
5. The availability of drugs especially addictive ones such as cocaine and Indian hemp should be made difficult Journal of Tourism, Hospitality and by very strict and restrictive measures.
6. Coaches should be properly educated on drugs education so as to be able to educate their athletes
7. However, to curb drugs amongst youths, the effect by the Federal Government against drugs is highly commendable

8. The propaganda embarked on buy various organizations example that Lion Club, the Lioness Club, International Federal of Women Layers is also the right step in the right direction.

Conclusion

With these various measures, it is hoped that the use of drugs in sports will be drastically reduced if not eliminated in the nearest future. This paper therefore, conclude that the use of drugs to enhance sports performance may result in more negative psychological consequences on both the athlete and society in general.

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Sports Physiology

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Abstract

One of the most rapidly growing fields of specialisation in physical education is that of exercise physiology. Exercise physiology is the study of the effects of exercise on the body. Specifically, exercise physiology is concerned with body's responses adaptations to exercise at the system as well as the sub cellular level. These modifications can be short-term, that is, lasting only for the duration of the activity, long term present as long as the activity is continued on a regular basis.

Keywords: *physiology, sports, physical education and system.*

Introduction:

Exercise is the result of a well-coordinate function of various organs of the body. These changes I of temporary nature if the exercise is continued for a short time. Howe ever, if the exercise is continued on a regular over a long span of time then some changes of a lasting nature take place in the organs constituting various systems of our body. In order to understand the short term and long term effects of exercise on various systems of our body, it is important to understand the structure and functioning of various systems of our body.

Objective of the study:

To know the role and function of sports physiology

Effect of regular exercise on cardiovascular system:

Cardiovascular function is important in supplying the muscles with fuel and oxygen, the more efficient the cardiovascular function, the longer a person will be able to sustain work. It represents the ability of the circulatory, respiratory, and other system of the body to put forth and extended and persistent effort. Cardio vascular function is regarded as the most important of the basic components of health and performance related physical fitness, the benefits that are derived from improved cardiovascular functions, such as the potential it has for preventing circulatory diseases improving work capacity , and providing greater distance from fatigue this component if properly developed can render a major contribution to and individuals health .

Physiologically, cardiovascular endurance is the sustained ability of the heart, blood vessels, and blood to carry oxygen to the cells, the ability of the cells to process oxygen, and the ability of the blood, once again, to carry away waste products. Since every cell in the body requires oxygen to function, there is no more basic element of fitness than this – to see that the heart, lungs, and circulatory system do their job.

Regular exercise improves our cardiovascular health and can even improve our mental health and happiness. Physical fitness relieves stress and can serve as an outlet for frustration. The stress of modern times mandates that you develop and maintain a fit, trim and fully functioning body. Being active and physically fit heightens your self-expression and self-esteem. Healthy living is a combination of many things, including good nutrition, regular exercise and a positive attitude. Taking care of your body and feeling pride in your accomplishment can improve both your physical and mental health.

Effect of regular exercise on skeletal system:

Our bones become healthy and stronger and can to tolerate greater strain. In the growing stage of our life. our bones become slightly longer and their shape may also undergo a change. Exercise helps in maintaining the flexibility of ligaments and cartilages which helps in maintaining proper functioning of the joints.

Effects of regular exercise on muscular system:

The muscles become strong due to the gain in strength of the individual muscle fibres. The muscles fibres shorten in length and increase in thickness. Because of this, the body appears muscular. Muscles become more elastic and can perform work with greater speed. As a result of gain in strength, the muscles can give better protection to some organs or our body.

Effect of regular exercise circulation system:

The regular exercise has a very healthy effect on our heart. As the load of exercise falls directly on the heart, it's muscles become strong with the result that it can pump more blood into circulation on every contraction of its ventricles. The stroke volume increases.

Effect of regular exercise on respiratory system:

As a result of the regular exercise, tidal volume increases. This is due to the gain in strength of muscles attached with the ribs that help in respiration. The vital capacity increases. This many not happen in the case of adults but is true in the case of growing children.

Effect of regular exercise on digestive system:

There is a general improvement in digestion. This is reflected in improvement in general health and overall appearance. Appetite also increases. The quality of blood improvement because of increase in nutrients in its cell. This is due to better availability and better assimilation of these in the digestive process. These nutrients serve as stores of extra energy in an individual. Regular exercise prevents the accumulation of decomposing food deposits in intestines that leads to gas formation. Proper health of the digestive track prevents constipation.

Effect of regular exercise on nervous system:

As a result of regular exercise, better neuromuscular coordination is established in muscles. This coordination eliminates unwanted movements in an activity and makes the performance skilful or graceful.

Due to regular training, the maximum effort for an activity can be increased, because our nervous system taps the reserve areas. The way one can give better performance. Fatigue related to synapse is delayed.

Conclusion:

Knowledge of exercise physiology is essential to the physical educationist, it is critical that the physical educationist understand the effects of exercise on the individuals body to plan programs on the individual. The field of exercise physiology provides the physical educationist with a wealth of information to guide the players endeavours.

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Eco-Running For Fitness**Dr. Basavaraj M. Wali**Asst. Director of Physical Education
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District: Belagavi State: Karnataka**Introduction**

Running is good for your health. Picking up litter is good for the planet's health. Why not combine the two? That's the idea behind "plogging," a new environmentally conscious fitness trend where people pick up rubbish while on a run. According to The Washington Post, this exercise-meets-eco-friendly activity started in Sweden and has since spread—primarily via social media—throughout Europe and into the U.S., Mexico, and beyond. On Instagram alone, there are now more than 10,000 posts tagged #plogging, which is a combination of "jogging" and "plocka upp" (Swedish for "pick up").

"I read an article [about plogging] and realized I had wasted the last few years of my running life not doing it," Laura Lindberg, a Hoboken, New Jersey, resident who first learned of plogging in February, tells SELF. "The next day I took gloves and a bag and started picking up garbage along the way. I found it to be really satisfying instead of just passing by litter and silently cursing the individual who put it there."

The New Eco-Friendly Fitness Craze Ever has been on a run through the woods and notice litter mottling the otherwise natural scenery? Maybe it's plastic six-pack ring, an empty Coke bottle or a few scattered cigarette butts. Whatever it is, it's a bummer on a few levels. Not only is it aesthetically unpleasing, it's a reminder of how careless and inconsiderate people can be. Then there's the bigger picture problem: the deadly effects of trash on the ecosystem, as well as on innocent wildlife. The solution to the waste epidemic requires multipronged efforts, but we can all help — even on our routine jogs by "plogging". The fitness trend has been rising in popularity in the states, and earlier this year, the health app Life sum launched a feature enabling users to log and track their 'plogging', an effort supported by the Keep America Beautiful, a non-profit focused on litter prevention.

Plogging on the beach:

Colin Cooley, co-founder of Wicked+, a creative and communications agency formed the plogging group Wicked+ Run Club as a way to bring together a group of local runners on a weekly basis and do some good. They tend to hit the beach, where the litter problem can be especially hard to ignore. "I've had a core group of running friends from different parts of L.A for the past eight-plus years and this was a way to meet some runners from right here in the South Bay," Cooley tells NBC News BETTER. "The plogging idea stemmed from my solo beach runs. My office is right off the beach and I'll often end the workday with a beach run right before sunset. I see so much trash along the way and spend half my time running and the other half picking up trash and sprinting to the nearest trash can. I thought, 'Why not make more of a regular event out of this and get our Wicked+ Run Club crew to come out here with me once a week and clean up our local beach community while we get in good sand run?'"

Ploggers are tackling a big problem:

Picking up some stray pieces of trash here and there may seem like it's not enough to make an impact, but these small efforts can add up to tackle a massive problem. "Much of the litter we see is stuff we don't even think of as litter when we first get our hands on it. Balloons, for instance, while beautiful and celebratory, come back down to earth as litter that doesn't biodegrade. Other litter is simply improperly recycled recyclables that never made their way to the facility. In urban settings, the most common litter seems to be food and beverage packaging, especially plastic bags, coffee cups, straws and plastic beverage bottles, cigarette butts (which are really just non-biodegradable trash)," Piper says. "Our consumption habits got us into this literal mess," she adds. "Small changes to those habits can help improve the situation."

Nature can help our health:

Being in nature can help our health. This adds an extra punch. Dr. Darria Long Gillespie, aka Dr. Darria, an ER doctor, the author of "Mom Hacks" and a runner, recommends plogging if only because of the proven benefits of being in nature. "Research has confirmed what we learned as kids

— that going outside in nature just makes you feel good,” Dr. Gillespie says. “In Japan, they call this ‘forest bathing’. Time in nature improves heart rate, blood pressure, cloistral and even our immune functioning. Other studies have shown that even being able to see nature from your hospital room can be associated with faster healing times. So, any time you can do exercise outside, not only does it overall make you feel better, it can even make the exercise feel easier.”

Ties to our origins:

The scientific case for Plogging ties to our origins as Hunter-Gatherers. One particularly fascinating argument for plogging is that such an activity is in our nature, as civilized humans who evolved from hunter-gatherers. “From a medical standpoint, plogging (or how about ‘plalking’, which would be walking and picking up litter) naturally emulates human body mechanics,” says Dr. Barbara Bergin, an orthopaedic surgeon. “Our prehistoric ancestors walked long distances, and from time to time, would bend over to pick up fruit and nuts and bugs from the ground to eat.” Bending over stretches the back, buttocks, hamstrings and calves. Plogging is multitasking in its best form. Dr. Bergin also notes the stretching benefits that the plogging may provide. “Bending over stretches the back, buttocks, hamstrings and calves. Plogging is multitasking in its best form. It’s a great idea, and I’m going to start suggesting it to my patients,” she says. **YOU DON’T HAVE TO BE A RUNNER TO DO THIS. BUT YOU DO NEED SOME CHEAP SUPPLIES.** “Plalking,” aka, walking and picking up litter as Dr. Bergin suggests, is an excellent option if jogging isn’t for you. I have an old knee injury that makes jogging tough for me, so personally, I’ll be doing this gentler form.

Brings Awareness:

Plogging brings awareness to just how much litter lines our streets, parks, and trails. From water bottles and liquor bottles to dental flossers, diapers, and cotton swabs, “there’s no shortage of garbage every single day,” says Lindberg, who typically wears gardening gloves when she plogs, and draws the line at cigarette butts and “anything that looks like it could be urine in a bottle.” She stashes trash in plastic bags that she discards at the end of her routes, or drops individual pieces in city bins along the way. “I’ve spent 30 minutes collecting two big bags of trash—all within 30 feet of my apartment,” Manchester, New Hampshire-based Abby Drake, who plogs multiple times a week, tells SELF. Drake, a self-described eco-conscious consumer, has been plogging for two months after she saw a Face book video on the trend and realized: “This is something I could actively do to help.” Like Lindberg, she chronicles her plogging hauls via Instagram. Here’s the pile of trash Drake collected on a 2-mile out-and-back run near her apartment. “Almost every 30 feet I found a Budweiser can,” she says. “It was like an Easter egg hunt.” Part of the trend’s allure, say ploggers, is that it is an easy, feel-good way to make a direct impact in your community.

How to start plogging(or eco running) to help reduce litter

1. Remember to Bring a Bag:

When you’re picking up trash, you’ll need somewhere to put it. Bio Bags, compostable waste bags are an option because they’re biodegradable. What we’ve found however, is that they’re a little less-than sturdy and having a bag that breaks open mid run defies the purpose of picking up trash in the first place. It’s a good idea to use a cloth “ditty bag” or simply a bag made from a tee-shirt and line it with the bio bag. You can wash the cloth bag regularly. Another option is to use a paper bag. Lunch sacks are thin enough not to weigh you down, but help you avoid putting more plastic in the trash. Experiment with different bags to find what works best for you. A cloth bag with a bio bag liner seems to be the lightest, easiest to carry option we’ve found. Hook it to your belt loop or a waist pack.

2. Be Prepared to Get a Little Dirty:

Of course, when you pick up trash, you’re going to get a little dirty. Avoid touching anything that looks bio-hazardous (like needles, yikes!). Most trash is paper-based—food containers, wrappers, etc. There will also be plastic, which is the worst because it never goes away. Most plastic bottles can be recycled. If you’re super squeamish about touching garbage, a simple pair of yard gloves or stretch knit gloves (like the little ones you wear in the winter) will protect your hands while you run. Another option is to carry a little bottle of hand sanitizer in your waist bag or pocket, just in case. Wash your hands when you get home.

3. Wear good shoes:

Part of the fun of plogging is that you get to use it as an adventure. You're going off road, exploring the trail. Plus, you really get familiar with the surrounding terrain. When you eco run or plog, however, you become aware of your surroundings. You also become very aware of just how much trash people throw out. It's pretty horrifying. Even if you run in a suburban neighbourhood, wear shoes that are sturdy and go "off road." You'll occasionally need to wade through some puddles or dirt to pick up garbage and litter. Be prepared.

4. Mix up your plogging route:

If you run in the suburbs or city, you may find your usually route starts to get really clean! First, when this happens, pat yourself on the back! You're making a difference! One of the most satisfying parts of eco running is that you can see the results of your hard work. In fact, it really doesn't take much effort to make a big impact. When you start to notice your regular plogging route is looking clean, it's time to move to the next area. Use Map My Run or another app to plot out various routes and new patterns. It's pretty exciting to see just how much ground one runner can cover when they're taking personal responsibility for the environment.

5. Don't limit yourself to running:

Here's the deal with the terms "eco running" and the term "plogging" they both imply you can only do them while running/jogging. But surprise (duh) you can pick up trash all the time—you don't need to limit your clean up to your runs. The aforementioned, David Sedaris has covered 60,000 steps a day, walking and plogging in West Sussex, which is a HUGE amount of walking. Organising eco-walks in school level is good idea. Kids love it and it's a great way to clean up the campus. You don't need to be a runner to clean up your environment.

6. Promote it to others:

At the heart of Ecology Runner is the idea that we want to help others live a healthier lifestyle, both for themselves and for the planet. We started blogging (plog-blogging?) with the plan to inspire our readers to make easy, simple changes that have a big impact on their world. If each of us takes just a small amount of responsibility—picks up a few pieces of trash on our daily travels, for example—we can cause real change to happen. Don't keep your plogging a secret. Let others know you do it and enjoy it. Personally, we've been so touched by the many people who have proudly told us they've started eco running, organized a recycle drive, cut back on meat in their diet or started to live more sustainable lives because of reading our blog. Keep the momentums going!

Plogging in india:

If you thought navigating the various garbage dumps and litter during your morning and evening walks was a problem only in India, then think again. Littering is a global problem, and a serious one at that. Which is why the Swedes have come up with a simple, yet effective, way to deal with this issue, giving rise to the latest rage in an altruistic global health trend — 'plogging'. And, it has now made its way to India. Though plogging – in its current form – might be a Scandinavian import, the idea is not new to India. Going one step ahead, the company Indiahikes has been cleaning mountains while trekking and hiking for many years now. Who knows, it could start a new trend named **plekking** now!

Plogging to plekking?

Lakshmi Selvakumaran, Indiahikes' Green Trails coordinator, says the initiative began five years ago. "It started organically when we realised that with more trekkers coming to the mountains, the trails were getting increasingly polluted. Each trekker is given an eco bag which they tied around the waist. On the trek, the trekkers participate in cleaning the trail too. They pick inorganic waste throughout the trail which is collected at each campsite, segregated and is disposed through the right means," she said. Just last year, they collected over 12,000 kg of waste. The waste is segregated, and they also work with local villagers to develop a holistic waste management system as well.

Down south too, a stir of change is already in the air. Bangalore-based digital entrepreneur Jacob Cherian is all set to host a 'Plogging Party' in Kodaikanal for people interested in camping, eating gourmet food and picking up trash in the forest over Easter weekend (March 30 to April 1).

Apparently, the idea fit in well with some of Cherian's dormant plans from a year back. "Over a year ago I tried to launch a campaign to encourage holiday goers and locals to pick up trash...But that did not take off. I think it's got a lot to do with the lack of name. Or maybe, it just

needed its share of Western validation. But as soon as it had a name — plogging, and a video that said, ‘the Swedes do it’, suddenly everyone was in,” Cherian said, shedding light on how he could take quick action as soon as the trend grabbed attention all across the globe.

Plogging It Differently

While Cherian’s initiative might not fit into the actual definition of plogging, they’re definitely variants. Much like what Goa-resident MC Mathew, who collaborates with people to save the environment, was part of a year ago. Even though it might not really classify as plogging, it shares the same thread of thought of cleaning the environment while strolling or having a good time with friends and family.

“I’ve been doing it for a long time actually, but the fact when I stopped and thought of making more people aware about it was last November. We decided to call in more people, and play music so that people could join in and clean up the beaches while having fun. It was rather small, as we started with friend, but for me, it was a huge initiative. One of the most interesting ways we did it was on a motorcycle ride towards an uphill. My friend decided to climb all the way up, and pick up the trash — which mostly included plastic boxes, packets of chips and bottles, and I carried a big bag to put it in. A few years down the line, I did the same thing on the beaches where I tried to tell people that you could do something about it on your own.”

Conclusion

“Enforcing things on people does help – in a big way. Whether negative or positive, but it stirs something in their mind to take it up, perhaps, right then or later,” Mathew said, adding, “The only way we can educate people is by banning it, but it is way too difficult, and the second way could be imposing a fine or some kind of punishment.”

Plogging can be done while you stroll in the parks too, but if you run or jog, the benefits would only double up as a fitness regimen. What’s more, it can be a treasure hunt or a cool get together with friends too. A win-win game, it has the power to inspire many to join in, help pick up the trash and could perhaps make the ones littering the public places feel sorry for themselves too. Wouldn’t you like to lend your hand to make the Earth greener and cleaner while getting fit yourself?

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Management of Sports Event

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Introduction

Sports events are very important to the Region as they showcase the unique aspects of the Region's culture and promote positive messages to our visitors. They also contribute to local communities by providing opportunities for economic growth and fostering community spirit.

Included in this toolkit are practical guides and resources to help plan, promote, and stage a successful festival or Sports event. As well as providing clear guidance on how to go about each stage of the process, there are also links to other useful information and templates that can be adapted to suit an individual event.

Event Plan

Planning is the most important part of running a successful sports event, and this means starting well in advance. The best way to approach planning is to develop a detailed management plan, which includes a timetable of what needs to be done and when. Crucial elements of the planning for the event, such as fundraising, booking performers and advertising need to happen well in advance of the date of your event so a timeline schedule is essential.

Event Details

1. Event Place & Time

In this section you should provide a general overview of your event and be as specific as possible about the activities you are proposing to conduct at the event. When selecting the dates for your event it is a good idea to check whether there are any other events already planned to avoid clashes in events. The timing of your event is also important to consider. Try not to plan your event during known quiet periods when many people are out of town. Consider planning your event during the peak season to increase your target audience and capitalize on the opportunity to promote your area. It is important to provide details of your set up and dismantling period as well as the actual times for your event to assist with the scheduling of works in the area.

Contact during Event

The Event Manager is responsible for the overall management of the event. Their role and responsibility includes organizing, resourcing, creative directing, human resource management, negotiating, financial management, public representation, troubleshooting and liaison. The event manager must be contactable throughout the event planning, conducting and evaluation processes.

2. Organising Committee

However keen you are, it is highly unlikely that you can organise an event on your own - you need a group. Groups often form around the desire to run a festival or event with the celebration of a theme, art form or sport in mind. This usually starts off being an informal grouping but as soon as the group starts to handle money then a formal statement of roles and responsibilities and decision-making becomes necessary.

People volunteer for committee work for a wide variety of reasons but primarily they become involved with an organization or an event and want to do something worthwhile towards its future success. Managing committees effectively means recognizing why people became involved, it requires a combination of organizational skills and an understanding of the members. Leaving everyone to do what they like doing might feel appropriate when working with volunteers, but it is not necessarily the way to ensure the group is run efficiently. You need to explore the skills of the people on the committee and match them to the jobs which need doing within the group. Remember that the committee members need to get something out of their role in the committee too, whether it is an increased sense of ownership and belonging to the organization, social networking or new skills.

Roles and Responsibilities

However your team is set up, you should allocate clear roles to each individual within the team, so everyone knows what they are doing and what is expected of them. Aim to choose committee members with a range of expertise, interests, skills and experience to share the work. Essential roles for an event committee are:

Event Manager

Treasurer

Other roles such as Promotions and Secretary

General members with various responsibilities „on the ground“

The Event Manager is the one essential position for any event committee organizing an event.

The Event Manager is responsible for:

- | | |
|--|--|
| 1 the smooth running and coordination of the event. | 2 the inclusive and welcoming nature of the event for all. |
| 3 ensuring that the event complies with all relevant Federal and State laws and local government policies and regulations. | 4 ensuring that all forms are filled out and details lodged with the relevant authority. |
| 5 ensuring that appropriate permission is received before the event goes ahead. | 6 ensuring that thank yous are sent to those who have helped in arranging or sponsoring the event and to any special guests. |
| 7 ensuring sponsors are publically acknowledged where relevant, including at the event and in promotional material. | 8 advertising the event. |
| | budget forecasting and financial control. |

3. Financial Planning

You may have a great idea for an event, but you need to make sure it is financially viable.

3.1. Budget

When you apply for funding, you will need to set out your projected Income and Expenditure to demonstrate that your budget will balance, and your event will be financially viable. Use a spreadsheet to draw up a budget of projected income and expenditure for the project. If you are GST registered, you should use figures excluding GST for this.

Income Sources of income fall into 2 main categories:

- Earned income: ticket sales, merchandising, catering etc
- Unearned income: public sector grants, donations from individuals or trusts/foundations etc.

Expenditure You should list each item of expenditure for your project - grouping them together under headings will help. Examples include:

- | | |
|---------------------------|--|
| Overheads | - administration costs, office rental, telephone |
| Festival/Event site costs | - hire of land, marquee, catering equipment, staging |
| Artistic costs | - performers' fees, accommodation, travel, hire of instruments |
| Marketing costs | - print of leaflets/flyers/programs, sub contractors, launch event |

When balancing your budget the total of your income should be equal to or greater than the total of your expenditure. If your expenditure is higher, you need to look at cutting some of your costs, or finding additional sources of income until they balance. If your income is greater than expenditure, you should make a profit or surplus on your event.

3.2. Financial Support

- It is likely that your festival or event will not generate enough income to cover all your costs, so finding funding from other sources will be essential. You may be able to access funding from:
 - State Government, i.e. Gascoyne Development Commission, Eventscorp
 - Lottery funders, i.e. Lotterywest
 - Trusts, Foundations, None Government Organisations, i.e. Country Arts WA
 - Local government authorities
 - Individuals
 - Businesses i.e. sponsorship

It is important to start seeking financial support as early as possible as grant bodies often have a long turnaround time. Allowing a long lead time will also allow you to accurately plan your budget with the funding you have secured. You must ensure that you keep receipts and accurate financial records if you have been awarded grant funding as you will be required to acquit those funds at the completion of the project.

4. Insurance

Managing a public event includes ensuring the safety of event organizers, volunteers, contract staff, event staff and the public. It is highly recommended, and may be mandatory, that event managers have comprehensive public liability insurance and seek legal advice as part of their risk management strategy. Insurance cover should also include property and equipment.

3. The Venue

The aim of this section is to help you formulate a comprehensive map or plan of the site. You will need to consider potential hazards, access and egress of emergency services, and other needs such as pedestrians, traffic and shelter.

Some considerations to get you on the right track include:

- Where are the designated evacuation points?
- Take note of where the fire extinguishers are located – take note also of their tags and when they were last tested (note they should be tested every 6 months).
- Are gas bottles tagged appropriately and when were they last serviced?

3.1. Potential Hazards

When selecting a site, especially for an outdoor event, do a “Risk Assessment” for any potential hazards in the area. Hazards may include:

- 1) Slip, trips and falls
- 2) terrain – small holes that can twist ankles
- 3) proximity to water bodies;
- 4) wildlife/fauna including insects and snakes;
- 5) bushfire potential;
- 6) high winds;
- 7) extremes of temperature;
- 8) fitouts within buildings and structures; and chemicals stored on site; and structures.

This list is not exhaustive. The event manager must ensure that all hazards appropriate to the event have been addressed. List the identified hazards at the selected site and the action taken to minimise the risk.

3.2. Site Plan

A site plan is a map of the event and is essential for event planning and management. All key stakeholders can use it as part of the planning process, with consultation as to its final layout. The site plan must be easy to interpret and be posted strategically around the site for use by patrons. The site plan can be distributed for setting up the event and is also invaluable in an emergency.

Use the checklist below to determine what must be shown on the site map. Use a simple grid format and include surrounding streets and landmarks. Entrances, exits, Event Coordination Centre, Emergency Coordination Centre, vendor locations, first aid posts, toilets, phones, security and licensed areas should be highlighted.

3.3. Site Plan Checklist

Event and Incident Co-ordination centre	First Aid posts	Non-alcohol areas Non smoking areas – around food stalls etc
Licensed liquor consumption areas	Picnic/quiet areas	Entrances & exits
Main Power/water/gas control	Taxi & Bus stops	Entertainment sites
Toilets and Toilet Blocks - state whether mobile	Stage location	Pedestrian route including emergency egress routes
Restricted Areas	Liquor outlets	Lost kids/property
Public telephones	Rubbish bins	Security locations
Seating	Drainage pits	Food/vendors/stalls
Media	Sharps Containers	Drinking water sites
Vehicle access routes Emergency access & egress routes – emergency vehicles Parking	Firefighting equipment Fire Extinguishers Fire Blankets Hose Reels Hydrants	Information centre

3.4. Contingency Plan

Has a contingency plan been considered in the event say of an outside activity if it rains? To prepare your contingency plan you need to first identify all the possibilities that could occur that

would have a negative impact on your event. Once these have been identified, your contingency plan should include a set of specific actions that can be implemented to reduce these anticipated negative impacts on the event if/when challenges arise.

4. Traffic And Pedestrian Management

4.1. Traffic Management Plan

Patron access must be planned to ensure there is no disruption to neighbouring businesses or homes and to ensure clear access by emergency services and event staff. Event organisers must make arrangements for the following:

- Adequate car parking space, including over-flow parking
- Access for people with disabilities
- Preferred access routes to the venue
- Adequate lighting
- Shuttle buses where venue/activity covers a large area

4.2. Road Closures

Will there be any road closures for the event? What roads will be closed for the event?

If so, the development of a traffic management plan, application to your local government authority, local Police and/or Main Roads Department, approval and advertising may be essential well in advance of your event - at least three months prior to the event. Check with your local government authority for the requirements in your town. On lodgment of the information, Council officers will inspect the area for the proposed temporary street closure and advise the applicant if it is practical and safe to do so for the purpose of conducting the event. All costs associated with advertising, development of the traffic management plan and staffing closures will be the responsibility of the event organizers so ensure you consider this when preparing your budget.

4.3. Adjoining Properties

In the interest of amenability with adjoining and/or property owners affected by the staging of your event, it is beneficial to inform them of the proposed event and activities. This may be a requirement of approval for the event.

5. Incident Management Plan

5.1. Event / Incident Control Centre

All event organisers and staff need to be in contact throughout the event through the Event/Incident Control Centre. Organisers may have a representative at the Event / Incident Control Centre to facilitate the provision and dissemination of information. Event organisers must be able to communicate with the crowd both for public announcements and in emergencies.

These areas must be accessible to ambulances and other Emergency Service vehicles.

5.2. Incident Management Plan including First Aid Arrangements

The event must have a formal, written Incident Management Plan. The plan should be provided to all event organisers, key stakeholders, police and emergency service personnel. Local Emergency Service personnel should be contacted at least two months prior to the event.

The plan should include:

Detailed First Aid arrangements for on-site emergencies not requiring outside help;

- Who are the events first aid officers? Who will provide first aid?
- Will the local ambulance be in attendance?
- Incident forms
- Who is the local contact for the Police? Have they been contacted prior to the event?
- Who is the local contact for the Fire Service? Have they been contacted prior to the event?
- Who is the contact for the local Ambulance Service? Have they been contacted prior to the event?
- Who is the contact for the local Hospital? Have they been contacted prior to the event?
- Specify arrangements to request further police and other emergency services assistance
- Identify meeting points for emergency services
- Identify contact details for local ambulance service
- Include details of local hospitals
- Identify access and egress routes
- How will communication be conducted on the day?

5.3. Incident Management Contact Details

Who will be the designated contact people for any incident?

5.4. Fire Fighting Equipment

Will portable fire protection equipment be strategically located throughout the venue for initial attack of the fire by the public and/or safety officers?

5.5. Lost and Stolen Property / Lost Children

What arrangements have been made for lost or stolen property and lost children? Show location on site map.

Conclusion:

Developing an Event Plan is critical to ensure your events success. The information provided in this document is designed to walk you through each step involved in organizing a festival or event, and can be used as a checklist. The information will hopefully assist you to develop an Event Plan for your festival or event. Please be mindful that this is a guide only and that there may be additional information or requirements that are not necessarily listed in this document. Please ensure you consult with your local government authority and other relevant agencies in developing your Event Plan.

It is important to start seeking financial support as early as possible as grant bodies often have a long turnaround time. Allowing a long lead time will also allow you to accurately plan your budget with the funding you have secured. You must ensure that you keep receipts and accurate financial records if you have been awarded grant funding as you will be required to acquit those funds at the completion of the project.

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Function of Sports Management

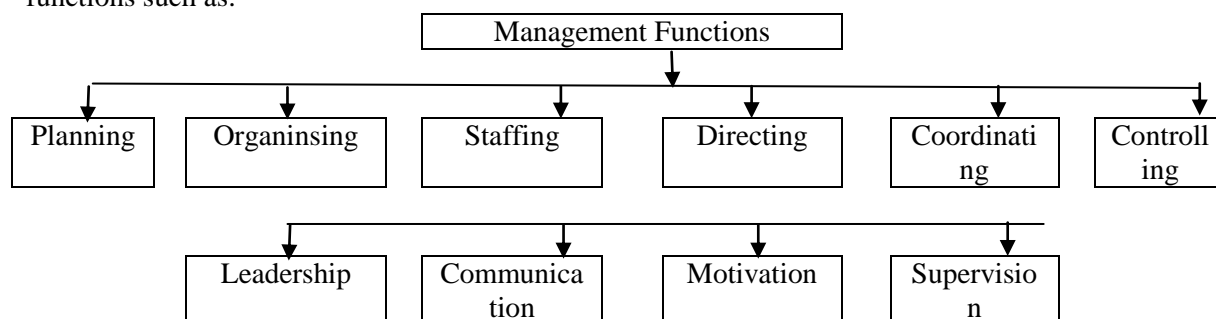
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Introduction:

Managers are meant to make things happen and ensure that people do things within the framework of predetermined objectives and parameters. Management is not a onetime act but an ongoing series of inter-related activities. It consists of a set of interrelated functions necessary to achieve desired organizational goal.

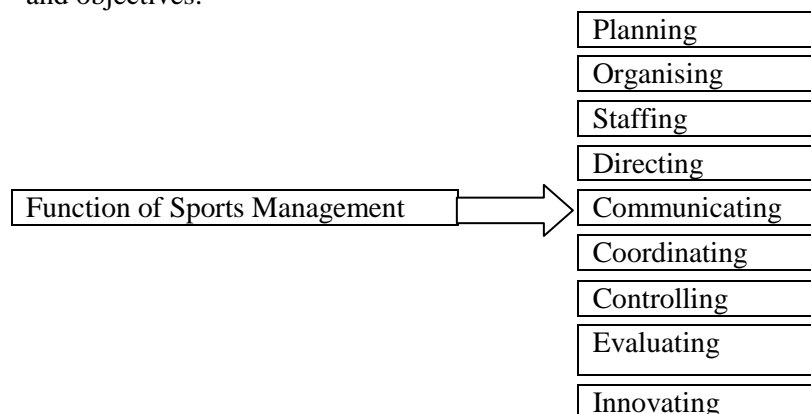
Every organization manager's performance certain basic functions in order to achieve desired results. These functions may be broadly classified into five categories: Planning, Organising, directing, staffing and controlling. However, there is enough disagreement among management authors on the classification of managerial functions. Some classify these functions into four types, some into five and some into six or seven. Though Gullick used the word 'POSDCORB' to describe functions such as:



Function of Sports Management:

Just like general Management, sports management has certain definite function before it. Various authors have given different opinions on the subject; however none of them gives a complete picture.

The functions of general management are applicable to sports management also though there are some variations in environment, scope of authority and the types of problems. All the managers including the sports managers undertake the same basic functions to attain the organizational goals and objectives.



1. **Planning:** Sports planning like planning in any other sphere of management is the primary function of both the sports management and the sports manager. It is ongoing process and never ceases in the management function. Planning in sports is undertaken by administrator, Executives, directors, coaches, teachers etc. In sports and physical education planning, it is involved in the following activities:

- Designing curricula
- Activity programmes
- Intramural and extramural competitions

- Instructional classes
 - Budget preparation
 - Appointment of teachers, coaches and student leaders
 - Faulty planning can result in complete waste of precious resources.
2. **Organizing:** organizing means identifying and grouping activities, assigning authority to different persons involved in the task and eliciting cooperation. In an organization anybody can do whatever he or she wants to do but the activity would be more effective and all assigned task would be completed if work is divided and assigned to each member should constitute various committees. People working in different committees must have certain authority and responsibility so that they can work efficiently, effectively and successfully.
 3. **Staffing:** physical education and sports personnel are selected and appointed on the basis of duly prescribed academic and professional qualifications. Formal course are formulated by various universities with specific objectives for which informal training comes through practical work and field interaction with students, athletes, faculty and supporting staff. Formal education without practical training is meaningless. Training is an important aspect of staffing in sports without extensive orientation and intensive in service training sports mangers cannot be made efficient and effective.
 4. **Directing:** Directing involves issuing instructions to the subordinates, guiding, motivating and supervising them from time to time, Directing involves decision making and the one who takes the decision has to bear the brunt of what follows. Directing refers to skillful and intelligent use of authority.

In sports the construction, use and maintenance of sports infrastructure, appointment and supervision of personnel, budgeting, organization of competitions and functions and functions etc. all require directing and decision making, Direction in physical and sports requires wide knowledge command over the subject and a sense of priority.

5. **Communicating:** communicating underlines public relationships. It refers to the process by which the manager of interest and concern. Communication is essential in every form of organization. Communication gap is the root cause of several problems in the organization especially those of discipline. Physical educationists and sports manages who are unable to communicate verbally or non-verbally may find it difficult to create a niche for themselves in the society and represent the profession.
6. **Coordinating:** To lead the sports management process in proposed direction continuous coordination is required. The people working in the organization need to be monitored continuously and the achieve within the organization need to be watched and coordinated in such a way that coordination effort is not much apparent. Sport and physical education is a very vast area, thus extreme coordination is a must to develop and maintain it. Each individual effort towards group goal must be coordinated to achieve the desired result.
7. **Controlling:** controls are required in order to achieve the targets set for the organization. In sports and physical education controls are exercised in various ways. Coaches and educators assert themselves during instructional classes, umpires and other game officials control competitions and tournaments sand the head of the department asserts control on administration. Control is not suppression but guidance and supervision. Establishment of a reporting system is the first and major step in controlling. The system of reporting should provide accountability time the data should be received and the mode of receiving the data should be determined. Only compilation of data is not important. It is of equal significance how the data is utilized. Data is the basis of evaluation in controlling hence its ability and accuracy cannot be undermined.
8. **Evaluating:** Evaluation is another basic function of sports management. Evaluation reflects the performance of the various steps of sports management in the overall implementation of the project at hand. The organizational, administrative and instructional policies, practices and programmes of sports may be subjected to periodic evaluation in order to ascertain the correct present position. Health fitness, skill performance etc. should be evaluated subjectively and objectively vis-à-vis objectives, finally, evaluation must bring about some qualitative change in the processes.

9. **Innovating:** Innovation is also an important function of sports management it consists of evolving techniques which are different from the already established norms or principles to management. It is infusing new ideas or approaches to management techniques and creating new opportunities.

Conclusion:

Management is as old as civilization. It has always existed in some form or the other. However, there is no agreement about the specific functions to be performed by the management. Planning occupies an important spot throughout the managerial circle. It is an ongoing process for the plans may be modified as and when necessary, on the basis of experience and exigencies, as well as organizing is the process of creating a structure of relationship to enable employees to carry out management's plans and meet its goals. Staffing is the process of attracting, developing and evaluating individuals at work. Directing deals with the steps a manager takes: guiding, supervising, motivating, etc. This explored the roles, functions, and levels of recreation and sports managers. Based on the level of management, the roles can be different. For instance, it is not the role of the commissioner to perform stadium duties during matches. However, by delegation to the security manager, the commissioner, by extension, performs such functions. Competent sports managers may therefore be deemed effective if they use their skills well. We can end this chapter by adding that "The primary purpose of good corporation management. They must look ahead and plan for depression risks, competition, obsolescence, exhaustion of natural resources, population movements, fashion changes, and political attacks. They must grow reserves against hard times, improve and lower the cost of their products, stabilize the security of their workers as much as possible, and make the public like and desire their company as a community and national asset."

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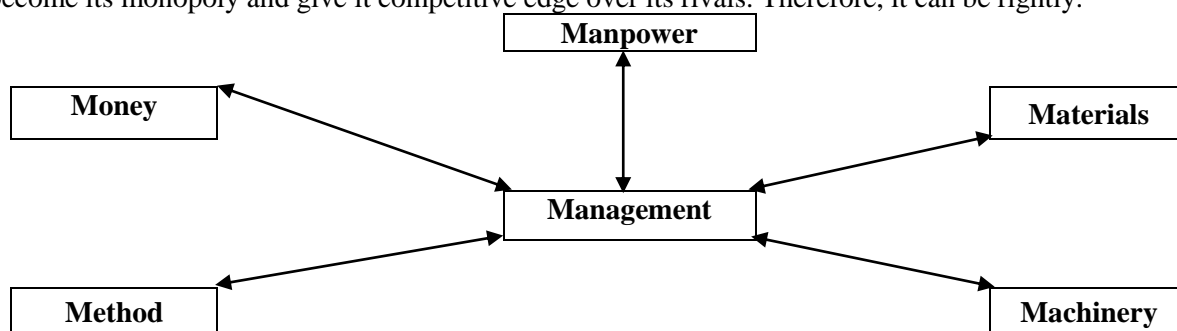
Sport Management

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Introduction:

Management is essential part of any group activity, Management is needed whenever people work together in an organization. The management functions must be performed by anyone who manages organized efforts, whether it is business enterprise. Educational organization, religious organization, military outfit or a social institution, management is the same process in all forms of organizations although it may vary widely in its complexity with the size of the organization. In today's competitive environment, the fact, they determine its very survival. Now-a-day, no organization can hold its monopoly on capital or technology. But good management can definitely become its monopoly and give it competitive edge over its rivals. Therefore, it can be rightly.



Need For Management

“Management is the dynamic life giving element in every organization; it is the activating force that gets things done through people. Without management, an organization is merely a collection of men, machines, money and, materials. In its absence, the resources of production remain resources and never become production” Management is thus needed to run an organization smoothly and effectively. The following points discuss the need for management in any organization.

Optimum Utilization of resources:

Management is needed for ensuring optimum utilization of resources. The proper use of men material and machinery and avoidance of wastage of all kinds are required in order to achieve better results. Management creates a right climate for people to put in their best and show superior performance.

Effective Leadership:

Managers are needed to make group effort more effective by providing right direction to the people. In the absence of management the working of an organization will become random and haphazard in nature. Management creates teamwork and motivates employees to work harder and more efficiently by providing necessary guidance. Counseling and effective leaderships.

Sound Interpersonal Relationships:

Management is needed as an instrument of establishing sound interpersonal relationships. Various people working in the organization are to be guided to put their heads together for the achievement of the common goals. Managers are needed initiate prompt action. Whenever people express dissatisfaction over organizational rules methods and procedures.

Achievement of Goals:

Objectives of an organization can be achieved only when the human and non-human resources are combined in a proper way. Managers are needed to achieve the objectives of the organization. They plan carefully organize the resources properly hire competent people and provide necessary guidance unnecessary deviations overlapping efforts and wasteful motions can be avoided only through effective management.

Planning for Future:

Every organization operates a constantly changing environment changes in technology government polices competition etc. often threaten the survival. An organization has to take note of these changes and adapt itself quickly. Managers are needed to help an organization by anticipating these changes and taking appropriate steps. Successful managers are the ones who anticipate and adjust to the changing circumstances rather than passively swept along or caught unprepared.

Scope of management:

1. Management as an economic resource
2. Management as a system of Authority
3. Management as a class

Sports Management

The term management is often associated by people with business trade or other economic activities. A sport is neither a business not an industry. It is a field of education where an interpersonal interaction is better understood as a means of socialization process than a trade transaction. However management is an essentiality in sports also sports and management are two human extensive activities the viability of the sports programmes can be enhanced if these are efficiently managed. The desired targets in sports programme cannot be achieved without careful attention to planning organizing staffing directing and controlling.

The management of a sports department is consistent of decisions and actions based on ability to identify and determine specific objectives the capacity to mobilize the necessary means for achieving them and aptitude for monitoring the results obtained. Thus managing a sports organization includes four basic steps.

The management of sports comprises of efficient organization of human, financial, material and facility resources latent in the sports environment to convert them into practical actions beneficial for the development of sports.

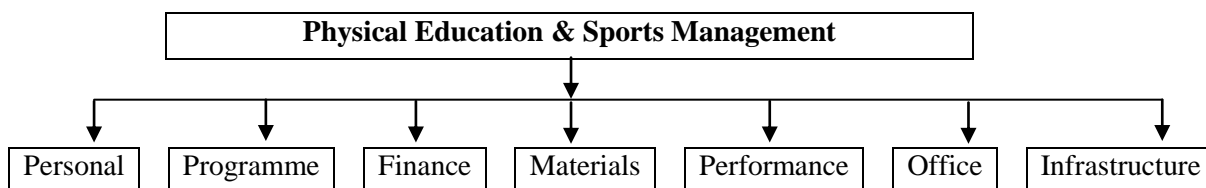
Need for sports management:

Man motive and material are fundamental to physical education and sports. These three elements are interlinked. One is meaningless without the other. These there are to be kept in a right perspective and managed through an integrated approach otherwise the objectives of the organization may be impossible to achieve. In order that physical educators instruct well. Coaches coach well and athletes' perform well these three major items of physical education have to be managed intelligently and manipulated effectively.

Basically the central focus of sports and physical education is 'man', physical education and sports programmes are planned and organized by man for the ultimate welfare of man. All human institutions require planning and organization. Without planned efforts the goals may be difficult to be achieved. The equipment infrastructure facilities and material required for running the sports and physical education programme is also a potential area of management.

1. To provide right direction to the policies, practices and programmes.
2. To facilitate speedy achievement of the aims objectives and goals of physical education and sports.
3. To put to evaluation principles of physical education and spsports
4. To make wise use of resources, economics on energy and help the physical educators to take intelligent decisions.
5. To poen new vistas of career selection for those who would like to take physical education and sports as a profession.
6. To lay down foundation to all organized human endeavors.
7. To serve as an instrument of establishing interpersonal relationships.

Scope of Sports Management:



Conclusion:

Sports management is gradually developing into a science. It presupposes a qualitative change in the attitude of the physical educator in general a need for specialized training for those who wish to take up managerial jobs. The ability of the managers to influence events makes significant difference in bringing about success, enjoyment and satisfaction. The widening or shrinking of the scope of amazement depends upon the manager's own intelligence wisdom initiative and efficiency.

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The role of Nutrition and Dietetics

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Introduction:

Sports nutrition plays a huge role in sports performance! Carbohydrates fuel high and limiting carbohydrates can negatively impact performance. Choosing high quality carbohydrates like whole grains, starchy vegetables and fruit is important because they will also provide the body with fiber, vitamins and minerals which promote overall health. Protein helps to build and maintain muscle mass although most athletes that I have worked with always get plenty (or too much) protein and neglect carbohydrates.

Personally, I feel that proper nutrition forms the foundation upon which sports performance is built. Without a good nutrition program, every aspect of your physical and mental abilities will decline. Everything from your level of hydration to the timing of your carbohydrate intake will drastically affect performance. The body simply cannot perform or function optimally without the building blocks of proper nutrition. Muscles cannot build, repair and become stronger without enough complete protein. The body's ability to endure a grueling pace for hours on end is highly dependent on its glycogen stores.

The field of dietetics has a strong emphasis on public health and a commitment to educating all about the importance of making proper dietary choices. Dietitian nutritionists use nutrition and food science to help people improve their health. When it comes to the world of nutrition professionals, the titles "Nutritionist" and "Dietitian" are often mistakenly interchanged. Many people think they mean the same thing. The level of training between both, though, makes them two distinctly different credentials. Nutritionist is not a legally protected title.

Nutrition is the study of nutrients in food, how the body uses nutrients, and the relationship between diet, health, and disease. Major food manufacturers employ nutritionists and food scientists. Nutritionists may also work in journalism, education, and research.

A registered dietitian nutritionist studies food, nutrition, and dietetics through an accredited university and approved curriculum, then completes a rigorous internship and passes a licensure exam to become a registered dietitian. A dietitian studies nutrition via self-study or through formal education but does not meet the requirements. The two terms are often interchangeable, but they are not identical.

Dietetics

Dietetics is the interpretation and communication of the science of nutrition; it helps people make informed and practical choices about food and lifestyle in both health and disease. Part of a dietitian's course includes both hospital and community settings. Dietitians work in a variety of areas, from private practice to healthcare; education, corporate wellness, and research, while a much smaller proportion work in the food industry. A dietitian must have a recognized degree or postgraduate degree in nutrition and dietetics and meet continuing education requirements to work as a dietitian.

Nutrition

Nutrition is the study of nutrients in food, how the body uses nutrients, and the relationship between diet, health, and disease. Major food manufacturers employ nutritionists and food scientists. Nutritionists may also work in journalism, education, and research. Many nutritionists work in the field of food science and technology. There is a lot of overlap between what nutritionists and dietitians do and study. Some nutritionists work in a healthcare setting, some dietitians work in the food industry, but a higher percentage of nutritionists work in the food industry and in food science and technology, and a higher percentage of dietitians work in healthcare, corporate wellness, research, and education.

Nutrient	Food sources
Calcium	Nonfat and low-fat dairy, dairy substitutes, broccoli, dark, leafy greens, and sardines
Potassium	Bananas, cantaloupe, raisins, nuts, fish, and spinach and other dark greens
Fiber	Legumes (dried beans and peas), whole-grain foods and brans, seeds, apples, strawberries, carrots, raspberries, and colorful fruit and vegetables

Magnesium	Spinach, black beans, peas, and almonds
Vitamin A	Eggs, milk, carrots, sweet potatoes, and cantaloupe
Vitamin C	Oranges, strawberries, tomatoes, kiwi, broccoli, and red and green bell peppers
Vitamin E	Avocados, nuts, seeds, whole-grain foods, and spinach and other dark leafy greens

Types

A nutrient is a source of nourishment, a component of food, for instance, protein, carbohydrate, fat, vitamin, mineral, fiber, and water.

- Macronutrients are nutrients we need in relatively large quantities.
- Micronutrients are nutrients we need in relatively small quantities.
- Macronutrients can be further split into energy macronutrients (that provide energy), and macronutrients that do not provide energy.

Nutrition plays a very important role in sports performance.

Without adequate carbohydrate and fluid, an athlete will get tired very easily and quickly. Protein is needed to rebuild muscles. Without all three of these plus adequate vitamins and minerals, an athlete will never be able to perform to their maximum potential. An athlete needs to pay close attention to when and what he is eating prior to a game or match as well as how much he is drinking. If unsure of how to use nutrition to reach his or her maximum potential, an athlete should contact a Registered Dietitian. Proper nutrition must be available pre, during and post competition. You may have a great game or great workout, but if the proper nutrients are not consumed, your development will suffer. Think of your body as a high performance machine and that you must feed it right performance fuel.

Sports nutrition plays a huge role in sports performance!

Carbohydrates fuel high intensity and limiting carbohydrates can negatively impact performance. Choosing high quality carbohydrates like whole grains, starchy vegetables and fruit is important because they will also provide the body with fiber, vitamins and minerals which promote overall health. Protein helps to build and maintain muscle mass although most athletes that I have worked with always get plenty protein and neglect carbohydrates.

Nutrition is a major contributor to an athlete's overall sports performance.

The main role of sports nutrition is to "support" the training program. So, eating for performance will change as the training regimen changes. Poor nutrition can lead to injury, fatigue and poor recovery, all three of which can hinder how well an athlete performs. A healthy diet and a performance diet are not that different from one another. Sports nutrition is more than carbohydrates to fuel activity and protein for mending muscles. All of the vitamins and minerals play a role in helping our bodies be the best they can be. Calcium and vitamin D for bone health, adequate iron to prevent fatigue and antioxidants to support the immune system are only a few roles nutrition plays. A board certified specialist in sports dietetics can help athletes build a performance diet tailored to their specific training regimen, age and gender requirements.

Additionally, your ability to train and practice for a sport is dependent on your nutrition.

If your nutrition program is filled with holes, you aren't going to be able to practice and train at the intensity and duration that is needed in order to become the best. Too many people neglect the importance of nutrition. Don't make this mistake because, to a certain extent, the outcome of your training and performance is hinged upon it. Nutrition is a variable of performance that you are in complete control of, so take advantage of it!

World Health Organization classification

Dietitians supervise the preparation and service of food, develop modified diets, participate in research, and educate individuals and groups on good nutritional habits. The goals of dietitians are to provide medical nutritional intervention, and to obtain, safely prepare, serve and advise on flavorsome, attractive, and nutritious food for patients, groups and communities. Dietary modification to address medical issues involving dietary intake is a major part of dietetics. For example, working in consultation with physicians and other health care providers, a dietitian may provide specific artificial nutritional needs to patients unable to consume food normally. Professional dietitians may also provide specialist services such as in diabetes, obesity, oncology, osteoporosis, pediatrics, renal disease, and micronutrient research. In many countries, the majority of dietitians are clinical or therapeutic dietitians, In other countries they are mostly foodservice dietitians.

India, the global capital for diabetes and other diseases (cardiovascular disorders, hypertension, heart disease, cancers) needs both curative and preventive nutrition,” says Kumud Khanna, Director, and Institute of Home Economics (IHE). As a part of Home Science, nutritional studies kicked off in the 1930s in India. “Earlier, the attention was towards finishing and grooming courses such as cooking and textile management. But nutrition education started gaining visibility in the early 1960s. At present, with new areas of practice, the nutrition domain has taken tremendous strides,”

The Dietician’s job

- Research the nutritive value of food
- Advise people on eating habits
- Understand all food components
- Plan diets that will improve health

Dietician:

They work in the areas of food science, community development, research projects and Fast Moving Consumer Goods Companies. Their work relates to research aspect. It could be in the field, desk or laboratory. Public health nutritionists work in the developmental sector. “They go beyond diets move into the science of biochemistry, food science. They do not do so much of clinical nutrition as a dietician does

Nutrition allows you to specialize in one of these areas:

- Therapeutic Nutrition
- Public Health Nutrition
- Food Science

Registered Dietitians

This credential is offered to professionals authorized by Indian Dietetics Association. It can be used by dietitians working at hospitals, day-care clinics and consultancy clinics. Those who possess these credentials would have specific academic and practice requirements.

Skills and aptitude

- Interest in food/ food preparation
- Writing skills to produce reports, documentation, leaflets
- Figure out new ways to solve a problem.
- Planning, administrative skills and organizational ability
- Good communication skills to interact with people, individually and in groups
- Good research skills
- Patience and a genuine concern for fellow beings

The real challenge

For those working in the field, hospitals and consultancy clinics inspiring clients to eat healthy, is a challenge. ‘It is tough to convince patients, clients and illiterate masses to eat selectively’ this sentiment resonates with every dietician you speak with. “It is because everyone has different tastes for food and it is not easy to break their eating habit,”

A growing demand

Today demand is emerging, especially in these areas, slowly but steadily:

Government bodies:

Many are hiring dietician for social welfare and developmental work. They also work in public health departments. “Depending on the number of vacancies available, If recruited you jump on to become a class-I gazette officer,” There are a sizeable number of dietician working as Advisor, Technical Advisor or Deputy Advisor. “There are 43 food and nutrition extension/field units across the country where dietician support is needed,”

Salary talk

The pay scale varies depending on the area of location, education and experience. For instance, a dietician in a small town would be paid less as compared to one working in a metro, while a dietician in a hospital may earn less than a dietician with his or her own practice. A fresher can earn between Rs. 15,000 to 20,000 per month. After gaining a good experience, you may touch Rs 30,000 plus. “In government hospitals, with the Sixth Pay Commission, the salaries have risen to Rs. 25,000,” Nutritionists working in the private sector will have differing pay amounts.

Keeping India healthy

Balanced representation of different types of work has brought legitimacy to the profession. Even though it is a female-dominated field, there are options for men, too. Last but not the least, it's a profession that gives you an opportunity to make a difference to your nation's health and well-being.

Sports Nutrition:

The field of nutrition is a dynamic one. Athletes often ask their trainers, physiologists, coaches, doctors, and dietitians for guidance related to what to eat and which supplements to use. Registered Dietitians have choices to work within clinical dietetics, nutrition support, research, outpatient or private counseling, consulting to the food industry, consulting to the supplement industry, direct food or supplement industry employment, in product development and many other economical beneficial areas. Often the weekend athlete and the professional athlete will seek nutrition advice from both the dietitian and exercise physiologist.

Sports nutrition is often considered the protein needs of athletes as compared to sedentary folk as well as anaerobic versus aerobic athletes. Sports nutrition guidelines over the past fifty years, it becomes apparent the biggest breakthrough was the discovery of how to glycogen load, refinement of the means of glycogen loading (from the days of depletion followed by super-compensation to tapering exercise duration while concomitantly increasing the diet to almost exclusively carbohydrate), followed by nitrogen balance studies demonstrating a slight increase in needs for athletes as compared to the sedentary and the evolution of creatine monohydrate as an ergogenic aid.

The following areas of nutrition are where the most growth is occurring: evaluating the effects of exercise on protein utilization, thus the overall protein needs, meal timing to maximize the anabolic response, the true "essentiality" of essential amino acids, the potential for ribose to benefit those engaged in high-energy repetitive sports, and creatine and its uses within athletics and medicine. It is up to us and other academic thought leaders to help grow the biological and metabolic understanding of the interaction of foods, nutrients, nutrient supplementation, exercise and the recovery from said exercise as well as the actual performance to the next level.

Develop the Future of Sports Nutrition

The future of sports nutrition will dictate that we collectively will have to have a higher standard of care and education for counseling athletes, whether individually or in groups. The integration of many different disciplines will become a minimum mandatory set of disciplines for any aspiring sports dietitian. A standardized certification is also expected to be available to Registered Dietitians and Ph.D.'s (in related areas) within the next two-years, this certification will help the public to decipher the true sports dietitian.

Conclusion:

Nutrition is the science that interprets the interaction of nutrients and other substances in food in relation to maintenance, growth, reproduction, health and disease of an organism. It includes food intake, absorption, assimilation, biosynthesis, catabolism, and excretion. Nutrition is the intake of food, considered in relation to the body's dietary needs. Good nutrition an adequate, well balanced diet combined with regular physical activity – is a cornerstone of good health. Poor nutrition can lead to reduced immunity, increased susceptibility to disease, impaired physical and mental development, and reduced productivity. Nutrition have an effect on muscle protein synthesis. Affecting may allow the downstream creation of new muscle mass. Strength exercise bouts can alter significantly net protein balance, resulting in greater gains in both muscle mass and strength than observed with training alone. With aerobic exercise, some evidence suggests immediate post-exercise (but perhaps not pre-exercise) supplementation is also beneficial. Second, protein type may also be important owing to variable speeds of absorption and availability, differences in amino acid and peptide profiles, unique hormonal response, or positive effects on antioxidant defense. In addition to athletes, many others who desire to regain, maintain, or enhance muscle mass or function, including those with muscle-wasting diseases, astronauts, and all of us as we age, need to ensure that nutrient availability is sufficient during the apparently critical anabolic window of time associated with exercise training sessions.

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Effective Evaluation In Physical Education And Sports

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Abstracts

The efficient evaluation includes each originally established objective, (b) evaluation facilities improvement in the teaching and learning process, (c) the program of evaluation encourages self- evaluation, and (d) the evaluation influences the entire institution for the better and for its effectiveness Make the institution effective and dynamic, (2) realistically measure progress in relation to the aims and objectives set, and (3) modify programmes, practices and procedures,

Keywords: effective, evaluation, physical education and sports

Intoduction:

Individual as well as collective evaluation is a must at every station/ situation of management because responsibility for success of failure does not squarely lie on the administrator alone, other too are part of administration. Even students, parents and the public are part of programme and the physical educator. Favourable evaluation follows when students' progress, performance and achievement are ascendant unfavorable evaluation result from non-achievement of pre-determined objectives.

Objective of the study:

To know the procedure of effective evaluation in physical education and sports

Effective Evaluation In Physical Education And Sports

Effective instrument of change in physical education are given below:-

1. Individual and performances should be subjected to regular, formal and informal observation and evaluation objectively as well as subjectively and its results mae known to individual concerned.
2. Evaluation of processes, procedures and products (performances, personalities) both on long-term and short-term basis should be an integral part of the total managerial and instructional system. With shorter but achievable goals performance and achiements should be assessed immediately on completion of the programme.
3. Along with mandatory administrative evaluation, self-appraisal should also be made compulsory at all levels. Students, athletes, physical educators, coaches, managers, administrators and supervisors should make an appraisal of their respective performance, competencies, contribution and role-play.
4. To make evaluation more precise and accurate the use of both statistical and clinical techniques is necessary. For instance, skills and performances in sports events when evaluated against established norms and standards become more meaningful. Abstractions like character, attributes of personality and traits of behaviour viz. confidence, courage, cooperation coexistence, mental toughness, will-power, emotionality, sentimentality etc. need to be evaluated through clinical approach.
5. While it is easy to judge physical skills, attributes and performance, discretion must be used in assessing conduct, character and personality as a safe-guard against undue criticism.
6. Evaluation should be comprehensive in terms of aspects, areas and periodicity. The evaluator must possess complete relevant information on the aspects under assessment. Insufficient, inadequate and even mis-information may discredit the assessee as well as the evaluator. Evaluation supported by factual data has statutory effect.
7. Evaluation should be an eye-opener to all concerned, and must be succeeded by a "follow-up action". Unless remedial measure are suggested, evaluation will be meaningless.
8. Depending upon the exigencies of time and place, evaluation process in physical education should be a cooperative affair. In order to lend greater credibility to evaluation, other teachers

- and even student-leadership, wherever expedient, should be activity involved in the assessment of skills, performances, achievements, facilities, equipments etc.
9. Directions for testing, assessing and evaluating should be clear and unambiguous so as to minimize “error in judgement.”
 10. Evaluations critically affecting people – for instance athletes, students, teachers etc. – should invariably include both appraisal and assessments, and must have a holistic approach. It is imperative for teachers and administrators to be sensitive to human values. Precisely, evaluation must have a humanistic touch about it.
 11. The appraisal of factors and capacities in the cognitive, affective and psycho-motor domains should be given due cognizance in an effort to integrate all aspect of evaluation and pronounce judgments.
 12. An inbuilt mechanism is necessary by which evaluation is subjected to meta-evaluation so as to ensure its reliability and validity. Checks and balance are necessary in the evaluation system.
 13. Good decision-making should emerge from good evaluation. The real test of evaluation lies in its capacity to assist the teachers, administrators and supervisors to take appropriate decisions about people, programmes, institutions and/or organization.

Conclusion:

The scope of evaluation in physical education is vast. Formally or informally almost everything is subject to some sort of evaluation. A vast array of areas and aspects of physical education require constant evaluation. Evaluation of performance and behavioural audit are challenging propositions.

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Role Of Physical Education In Managing Healthy And Balanced Lifestyle Of College Student

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Abstract: -

In this research paper the researcher is find out the personal and interpersonal skill of student using management in physical education. The role of PE is in the college students is to develop physical activities and developing strength, coordination and motor skills. But aside from developing these physical skill sets in class, Physical education generally encourage a healthy and balanced lifestyle in students life . Physical Education helps to students to develop physically in areas such as flexibility, strength, endurance and coordination. It also promotes teamwork, interaction and group problem solving. One of the most important roles of it is to provide motivation and encouragement to students. Physical education helps student to develop an awareness of the importance of a healthy lifestyle. From the research paper it is concluded that physical education plays an important role for the student by managing the balanced and healthy lifestyle.

Keywords: - Physical Education, Healthy, Management lifestyle and Balanced

Introduction

For the elementary and high schools that still offer physical education, the Physical education is often one of the favorite subjects of college student. Physical activities are developing strength, coordination and motor skills in students. But aside from developing these physical skill sets in class, Physical Education generally encourage a healthy and balanced lifestyle in students. One of the basic significance of Physical education is to help students to develop physically in areas such as flexibility, strength, endurance and coordination. Physical Education encourages teamwork, interaction and group problem solving. It also provides motivation and encouragement to students and help them to develop an awareness of the importance of a healthy lifestyle.

Objective:-

1. To understand personal and interpersonal skill of college student
2. To understand healthy and balanced lifestyle of student

Personal Skill Development

One of the basic significance of Physical Education is to help students to develop physically in areas such as flexibility, strength, endurance and coordination. Every student will be at a different level of fitness. Physical education in college is to assess and push students to achieve their best without leaving anyone out. It also develops relationships with individual students who are particularly physical and sports-minded. At the same time, you get to come up with group activities that allow every student to participate comfortably.

Interpersonal

Physical Education classes provide an atmosphere for students to learn about healthy interaction with their peers. It also encourages teamwork, interaction and group problem solving. It's up to teacher to make it fun and challenging with games and activities that foster teamwork. On the other hand, It also developing a respectful atmosphere in which competition and winning are not necessarily as important as effort and participation, essential life skills of students often get from physical education.

Encouragement

One of the most important roles of a physical educationis to provide motivation and encouragement to students. This means being receptive to the needs of individual students while still pushing everyone to strive and succeed. Physical education also finds way to help students to enjoy rather than simply imposing a curriculum. It can accomplish through games, free time, incentives and more but, most importantly, offer encouragement and support to students, especially those who might be less enthusiastic or less physically adept.

Health Education

Physical education is to educate children and help them develop an awareness of the importance of a healthy overall lifestyle. This can include encouraging a healthy diet and activities outside of class. Teachers are often aware of the range of benefits that comes with physical activity,

and it's their job to promote this understanding. Physical health is a lifelong goal, and physical teachers have a duty to nurture this type of attitude in their students.

Conclusion:-

From the research paper it is concluded that physical education plays an important role for the student by managing the balanced and healthy lifestyle. Physical Education is to help students to develop physically in areas such as flexibility, strength, endurance and coordination. It also encourages teamwork, interaction and group problem solving. One of the most important roles of a physical education is to provide motivation and encouragement to students. Physical education also finds way to help students to enjoy rather than simply imposing a curriculum.

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Health Fitness & Nutrition

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Introduction

Many people feel that their daily work gives them more than adequate exercise for fitness. Evert one knows the meaning of health wellness but in the real life how many are healthy? Good health is often defined as the absence of disease. 1970 and 1980 many exercise scientists and health educations become unsatisfied with this limited definition of good health. These thinker believed that health was not only an absence of disease but included physical fitness and emotional and spiritual health as well.

Nutrition is the provision to humans to obtain the materials necessary to support life. In general human can survive for two to eight weeks without foo, depending on stored body fat and muscle mass. Survival without water is usually limited to three or four days lack of food remains a serious problem, with about 36 million humans dying every year from causes directly or indirectly or indirectly related to hunger childhood malnutrition is also common and contributes to the global burden of disease same condition about health status of Indian women. India has world's largest number of professionally qualified women. India has more no of doctors, surgeons scientists, professors than the United States India has largest population of workingwomen in the world. But what about their health status. The average female life expectancy in India is low compared to many countries, in many families' especially rural ones the girls and women face nutrition discrimination within the family and are anemic and malnourished. So proper guideline and proper education of Nutrition is must for everyone and every age group.

When we think of the National growth and National health we must think of the Nutritional status of women and child. Nutrition is concerned with social, economic cultural and psychological implications of food and eating. In shout nutrition science is the area of knowledge regarding the role of food in the maintenance of health.

Nutrient Balance: - Nutrients are necessary for proper functions of the body. Carefully planned nutrition provides an energy and Nutrient balance. Human body requires some nutrients in large quantities that are called macronutrients and some in small quantities that are called micronutrient. There are four types of macronutrients namely proteins, carbohydrates, Fats and water and micronutrients namely, vitamins and minerals.

Daily energy required by a human being: -Personal energy requirement = basic energy requirement + extra energy requirement.

Basic energy requirements for 1Kg. body weight is 1.3 Kcal / hour

For. E.g. Calories requirements for the person having 50Kg. of weight / day
= 1.3 x 24hrs. x 50Kg. = 1560 kcal / day

The Proportion of nutrients required to get proper energy fuel is as follows.

The energy fuel we required is a blended mixture of carbohydrates (sugar, Sweets, Bread, Cakes) + Fats (Dairy Products Oil) + Protein (eggs, Milk , Meat, Poultry, Fish) in the ratio 57% : 30% : 13% respectively.

The energy yield per gram of carbohydrates is 4Kcal, Fat is 9 Kcal and protein is 4kcal.

Nutritional tips:-

- ❖ It is important to eat at regular intervals, ideally every 3-5 hours, to keep blood sugar levels stable.
- ❖ Beware the hidden fat foods such as biscuits, cakes, desserts, quiche, sausages, porkpie, salami etc. should also be kept to a minimum
- ❖ Dairy products are a high source of fat and cholesterol, but they do provide us with other beneficial nutrients.
- ❖ Eat fruits and vegetables a day for general health.
- ❖ Use of batter in moderate quantity is beneficial for health.
- ❖ Alcohol taken in moderation but it cannot be used as fuel for exercise, nor does it provide any vitamins, minerals or fiber.
- ❖ Eating fish 2-3 times a week is beneficial because it contains Omega 3 oil.

Conclusion:-

Food is the prime necessity of life Healthy eating is a way of balancing the food. You eat to keep your body strong energies and well nourished. When you eat well, you are to king good care of your body.

So simple way that:-

- 1) Don't skip meals
- 2) Learn about simple healthy ways to prepare foods
- 3) Be manful when eating
- 4) Sugar avoid gaiting too much
- 5) Avoid diet thinking
- 6) Get your exercise
- 7) Get plenty of sleep
- 8) Drink plenty of water.

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Mental Health Between Non-Yogic Practitioners & Yogic Practitioners

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Introduction:-

The common belief that yogic practitioners lead to better physical and mental health than non-yogic practitioners. Wikipedia Dictionary (2010) explains the meaning of mental health as a state of emotional and psychological well-being in which an individual is able to use his or her cognitive and emotional capabilities, function in society and meet the ordinary demands of everyday life. Health is a state of complete physical, mental and social well being and not merely the absence of disease or infirmity 'defines the Constitution of the World Health Organization. This concept is very close to the definition of health according to Ayurvedic literature. Sushrut, a prominent proponent of this traditional system of Indian to Ayurvedic literature. Sushrut, a prominent proponent of this traditional system of Indian medicine, defines it is a state characterized by a feeling of spiritual, physical and mental well being (Prasannaatamindriyamana). The objective of the study is to find out the difference of positive mental between yogic practitioners and non-yogic practitioners and to find out the difference of Negative mental between yogic practitioners and non-yogic practitioners.

Methodology :-

20 yogic practitioners and 20 non-yogic practitioners from had been selected for the present study. Their age ranged from 25-50. Questionnaires were distributed to yogic Practitioners and non-yogic practitioners. Instructions were given to the both group students before filling these questionnaires by the researcher. To analyzed the data, t-ratios was comprised the status of mental health between yogic practitioners and non-yogic practitioners. questionnaires were distributed yogic practitioners and non-yogic practitioners. Instructions were given to the individuals and team players before filling these questionnaires by the researcher.

Tools of the study:-

For the present study, Mental health was measured by the using general Health Questionnaire (GHQ- 12). The General Health Questionnaire (GHQ) is a measure of current mental health and since its development by Goldberg in the 1970s it has been extensively used in different settings and different cultures. The 12-item GHQ-12 comprises six ' positive' and six 'negative Positive and six negative item positive item included have you recently felt capable of making decision about things? While negative item included 'have you recently felt constantly under strain ? item where classified in this way according to wording ; with positively worded item having responses 'Better than usual ; 'same as usual ; ' less than usual ; and much less than usual ; Responses to negatively worded item are 'Not at all ; no more than usual Rather than usual; Question 1, 3,4,7,8 and 12 as positively worded item . The remainder are negatively worded Responses will be coded using an un weighted four – point Likert scale [0,1,2,3,]. Positively worded item will later rescored so that a high score will indicative of endorsement of these item [e.g.better than usual'] Higher scores on negative item indicate greater distress and or difficulty

Collection of data :-

Data was collected individually through a questionnaire from 20 yogic practitioners and 20 non-yogic practitioners in (*Sant Gadge Baba Amravati University, Amravati*) descriptive statistics for all studied variable and t- value was used and p-value of <0.05 was considered statistically significant throughout the study

Results and Discussion:-

Comprised and identified of mental health between yogic practitioners and non-yogic practitioners . The data have been systematically analyzed in the form of mean scores standard Deviation and T-ratio

Table-1
Mean scores and Standard Deviation of selected components Yogic practitioners and non-yogic practitioners of positive health positive health Positive health Positive mental health

Mental Health	practitioners	Number	Mean	s.Ds.	t-ratio
Positive Mental health	Yogic practitioners	20	22.89	4.32	4.65*
	Non-yogic practitioners	20	20.98	4.07	

Table 1 shows that Mean Scores and Standard Deviation of selected Yogic practitioners and non-yogic practitioners of Positive mental health. The mean score and standard deviation obtained from table-1. The results reveal that there was significant difference was significant difference was found between Yogic practitioners and non-yogic practitioners in positive mental health. Yogic practitioners were found to have better Positive mental health as compare than non-yogic practitioners.

Table-2
Mean Scores and Standard Deviation of selected components Yogic practitioners and non-yogic practitioners of Negative mental health

Mental Health	Practitioners	Numbers	Mean	S.Ds.	t-ratio
Negative Mental health	Yogic practitioners	20	2.56	0.77	2.89 Sig.
	Non-yogic practitioners	20	2.98	0.82	

Table 2 shows that Mean Scores and Standard Deviation of selected Yogic practitioners and non-yogic practitioners of Negative mental health. The mean score and standard deviation obtained from table-2. The results reveal that there was insignificant difference was found between Yogic practitioners and non-yogic practitioners in positive mental health. Yogic practitioners were found to have better Positive mental health as compare than non-yogic practitioners. Finally, the results of the study were expected to be of great use and importance to the students as the same can be utilize in formulating the modalities in putting their knowledge acquired thorough developed scientific investigations, analysis and interpretation of findings to use of all type of students.

Implications:

The findings of this study will be implication for mental health professionals working with yogic practitioners. As mental health professionals become aware of these differences, they will be better able to structure prevention and treatment programs for students. This study well add to the body of knowledge concerning students' health outcoms. The studies will also implication on academic stress needs to examine the either-group variability of students and provide more detailed information on differences by countries and level of students and provide more detailed information on differences by countries and level of acculturation. It will also be imperative to explore the relationships among mental health and how these factors might vary in different cultures.

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Importance & Benefits of Yogic Practices in Modern Lifestyle

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Introduction: -

Swami Vivekananda proclaimed each soul is potentially divine. The goal is to manifest this divinity within, by controlling Nature both external and internal. Do it either by work or worship. Psychic control or philosophy, by one or more, or all these he has free. So in the modern world yoga is more relevant in our body because some of the main problems which we notice in the fast moving modern world. Our country is now developing in the sports field, education structure is developing in a faster way. In the field persons Brain are used heavily for hours due to which the mental tension increases and Back pain also increases. Therefore such reasons for immediate relief they go for tablets and have side effects which will bring them to the level of cancer also. Now going to the business man's life tension can be seen more. They mainly depend on alcoholic drinks which again lead them to a bad condition. We can notice such type of person having mental disorders, at the end modern children have different challenges compared to previous generation. They are prone to spending a considerable amount of time in front of TV or Computer, listening to their iPods or playing video games and as a result, they spend less time on physical activity. Add to that the richer, processed food they eat and the pressure to perform well in school tests, is it any wonder so many children are stressed. Suffer insomnias, eating disorders, ADD Attention Deficit hyper activity disorder and sometimes aggression.

Benefits of Yogic Practices: -

In the last century, yoga has developed in various directions and dimensions under the guidance of many eminent masters. These masters have codified their own styles of yoga that are often at variance with one another yet, many still maintains the traditional lineage to yogavidya or the science of yoga. The term unity in diversity is adapt for these developments as though on the surface, the different traditions may appear to be even contradictory, they all ultimately lead to the some goal of Spiritual Union through diverse paths. Major developments in recent times have been the extensive scientific and academic research done in the field of yoga, as well as the transference of yoga education from the Gurukula and Ashram settings to the College and University Oriented Yoga.

Yoga has gained tremendous popularity in the last few years, it is the most rapidly growing health movement despite it was developed thousands of years ago. Age, religion, caste, sex is no bar with breathing and meditation techniques. There are many types of yoga and it may be hard for the beginners which yoga type he or she wants to do. The most important benefit of yoga is the physical and mental therapy, the very essence of yoga lies in attaining mental peace, improved concentration power and a relaxed state of living. But yoga can solve or help all the problems seen in the present stage. Children who have embraced yoga are calmer, more alert, better listeners, more creative, more physically focused with stronger and healthier bodies. Inspired to be successful in whatever they choose to do more able to channel their speed, agility and stability which helps improve their performance in sports such as Hockey, Foot Ball, Athletics, Swimming, Dancing, Skating etc.

Most of the physicians recommended yoga to their patients because of its scientifically proven benefits.

Some benefits of them are: -

- 1) Increases concentration, constant practice decreases the amount of harmful hormones produced in the body at the time of stress or tension.
- 2) Practicing proper Asanas or a posture helps reduce back pain and other joint pains.
- 3) Reduces Respiration problems.
- 4) Helps to Weight Reduction.
- 5) Increases the Immunity of the body.

Physical Benefits of Yogic Practices:-

There are many health benefits from yoga, studies have shown that yoga can relieve many common and life threatening illness such as Arthritis, Chronic Fatigue, Diabetes, Asthma, High Blood

Pressure ,Back Pain ,Weight Reduction, Obesity ,Constipation and Respiration Problems and Yoga also helps in rehabilitation of old and new Injuries.

Psychological Benefits of Yogic Practices:-

Regular yoga practice creates Mental Clarity and Calmness, Increase Body Awareness, Relieves Stress Patterns, Relaxes the Minds and Sharpens Concentration. Yoga provides tools through which one can cope with the pain and helps counter with the feeling of Helplessness and Depression. Yogic breathing and stretching exercises have been seen to result in better mental & physical energy and improved mood. The mental performance also increases with yoga and doctors suggest that yoga can enhance cognitive performance.

Spiritual Benefits of Yogic Practices:-

When you achieve that yogic spirit you can begin knowing yourself at peace. If one succeeds in achieving skills which provide health and self confidence, one can justly raise his self esteem simply by observing himself living the improved result as an achieved fact. Yogic therapy leads to increase self knowledge, this is not just the practical knowledge this includes knowledge pertaining to grasping something.

Therapeutic Benefits of Yogic Practices:-

- Help to improve the Concentration.
- Help alleviate the Mind Depression.
- Reduces Stress and Anxiety.
- Calms the Brain.
- Useful in Constipation and improves Digestive Power.
- Rejuvenates Digestion.
- Stimulates Abdominal Organs Lungs & Thyroid.
- Reduces Fatigue, Backache, Headache, and Insomnia.
- It is beneficial in Arthritis.
- Therapeutic for Asthma, High blood pressers, Osteoporosis and Sinusitis.
- Relieves Menstrual Discomfort when done support.
- It improves Sexual Health.

Benefits of Yoga Asanas:-

Asana enables on to control mind, improves digestion, exercises spine, keeps nervous system in good condition and improves the working of several body systems. Yoga Asanas also boost oxygen flow throughout the body. Supply of oxygen to the body is completely dependent on the respiratory system. Lengthened deep and rhythmic breathing associated with each movement multiples the competence of respiratory system. Further, oxygen-rich blood is supplied to every tissue of the body and this in turn helps the body to be healthy. These help to strengthen the muscular system as well. The various postures ensure that every part of body, even the smallest gland, receives proper attention. The aim of yoga Asanas is to achieve strength and to promote health. Lack of motion in the joints can lead to their mal-adjustments and degeneration. Stretching and contracting postures make muscles strong and healthy. It is scientifically proved that the effort given to practice yoga Asanas can bring about maximum contractibility of the entire muscular system and consequently raise the tone and increase efficiency. When this simple truth is applied to internal organs, physical efficiency is gradually multiplied and the height of biological perfection is achieved.

Yoga postural pattern play a vital role in yoga and is of greater significance with the effect of physical training on the nervous system. In [Yoga](#), the physical body merely serves as a medium of education for the mind, and the nervous system, thus paramount importance. All the yoga Asanas or postures, thus aim at controlling, assumes purifying and coordinating the nervous system rather than at muscular display and strength. They aid in achieving poise and controlling the body and the mind through non-fatiguing methods.

Impact of Yoga Asanas on Human Body System: -

Yoga

Asanas have a profound impact on the systems of the human body. The Muscles, Bones, Nervous System, Respiratory, Circulatory and Digestive Systems of the human body are greatly benefited from regular practice of yoga Asanas. The body becomes more flexible, and more able to adjust to environmental changes after practicing Asanas. The Sympathetic and Para-Sympathetic Nervous Systems are brought into a state of balance with the help of Asanas.

Intake of proper food and drink is also necessary and forms an important part in the section of technicalities of Asanas. All alcoholic drinks are to be cautiously avoided. Stimulants such as tea and

coffee are never to be taken in excess. Heavy smoking of whatever sort invariably shatters the nerves, if carried on across many years. Yoga Asanas show their maximum effect if the above-mentioned precautions are observed while practicing them.

Conclusion:-

Yoga is process to control and develop the mind and body to gain good health, balance of mind and self realization. With proper understanding and practice one can reach the optimum level to keep physical fitness. Balance between exercise diet and relaxation will provide the sound for mental and physical capacities. Though yoga has the potential power to make up healthy, added to our vitality, still most lack the knowledge of systematic practice of yoga. Yoga is thoroughly globalised phenomenon yoga has taken the world by storm and is gaining popularity day by day. In short, yoga suggests a number of ways to achieve a calm peaceful mind. To get rid of the diseases one needs to cultivate the habit to culture the mind. Happiness is that state of mind which positively brings about a change in once attitude towards ourselves, others and life at large. So let us all make it a habit to bring yoga to our day to day life.

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Sports Training and its Importance

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Abstract

Sports can be a great way to get in shape or stay that way. Having a specific goal can be a great Motivator. Physically, you need strength and endurance. Your training will vary with your sport. You would not train the same way for pole vaulting as for swimming. You might, however, cross train. Cross training simply means that you include a variety of fitness activities in your program. Research shows that cross training builds stronger bones. When beginning a program of exercise on must work first on heart endurance, aerobic endurance then progress to their areas. However before beginning any program both athlete and non-athlete should have a checkup, exercise illness in which case medical advice may be sought children will not damage a healthy heart by exercise when they are tired they stop.

Introduction

Sport training our scientifically base and pedagogical organized process which through planed systematic effect on performance ability and performance really nice I am at sports perfection and performance improvement as well as the contest in sport competition. Training is the process of preparation for some task “sport training is a pedagogical process based on scientific principles aiming at preparing sportsman for higher performance in sport competition” Training does not make a person muscles born. Who is an observed expression but assembly it returns to those who train for bodybuilding incredible physical dimension only occur with wealth deliberately set out to Hypertrophy the size of various muscles. Normal exercise programs do not have their effect. In fact by reducing fat around the muscle and improving muscles.

Aims Of Sports Training

Sport training and its importance AIMS at improving the performance of sports person the sport performance depend on several factor like constitution, condition, technique / co-ordination, tactics and personality.

Methodology

Training mean are various physical exercise and other object, method and procedure which are used for the improvement maintenance performance capacity and performance rediness. Any material, which can be used to achieve the am called training means.

Training Method	Training Effect
Prepay means of training physical exercise General exercise, Special exercise competition exercise	Physical fitness technical skill, tactical, efficiency, physics factor, and relaxation.
Additional Method Training	
Pedagogical Means : Demonstration, Explanation, Verbal Instruction, Task of observation study, Lectures, discussion	Movement concept, feedback knowledge method abilities achieve participation interest motivation personality
Medical and Physiotherapeutic	
Nutrition, Massage, Hygienic measurer, Physic therapy, Biochemistry	Healthy recovery and relaxation prevention prom infection Rehabilitation judgment of load recovery assessment of training effect.
Physiological Method	
Ideo motor training, Autogenous training, Psycho-tonic theory	Technical skill technical efficiency recovery relaxation behavior control removal of psychic preparation
Bio-mechanical	
1. Cinematography 2. Measuring devices	Technical skill assessment feedback figuring bio-mechanical aspect of sport moment
Natural	
Light, air, water, Weather condition Attitude	Health resistance against infection and disease physical fitness

Result

For getting best possible result planning is essential in all activities, planning is the process of meaning and modifying a plan. Planning is an important method to ensure continuously development of personality and sports performance in the age of high performance.

Discussion

Training is complex scientific process its effectiveness depends upon several factors. The discussed here are mainly for use of coaches of sport teachers

Conclusion

Preparation of the sportsman for the main competition is a very important part of the total preparation of the sportsman. Physiological preparation aims at enabling the sportsman to participate in the competition with an optimum physical state. It is a process that involves other minor things like discussion, psycho-regulative procedure. Numerous types of fitness training exercises and regimens can improve performance in sports. The correct combination of activities should build the fitness components that are "key to high performance in each specific sport. Short bursts of speed for basketball tap different energy systems than long, sustained marathon running, so the exercises and other variables must be manipulated to fit either type of training.

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Correlational study between the selected psychological variables and playing ability of inter zonal university football players

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Summary:

The purpose of the study was to find out the relationship of emotional intelligence, sports achievement motivation and sports competitive anxiety with playing ability of inter zonal university football players. One hundred sixteen (116) male inter zonal university football players of 18 to 28 years old were selected as subjects for this study. The subjects were selected from the participating players of All India Inter University Football (Male) Tournament 2016-17. Emotional intelligence was assessed by employing Emotional Intelligence Scale for sport persons developed by Rajitha Menon A. and Jayashree Acharya. Sports achievement motivation was assessed by administering Sports Achievement Motivation Test, a questionnaire developed by Dr. M. L. Kamlesh. Reiner Martin's questionnaire of Sport Competition Anxiety Test (SCAT) was used to assess sports competition anxiety. Football playing ability was measured by adopting 3 Judges rating method. To find out the relationship of emotional intelligence, sports achievement motivation and sports competitive anxiety with playing ability Pearson's Product Moment Correlation (zero order correlation) statistical technique was employed independently for each selected variable. To test the hypotheses level of significance was chosen at 0.05. The statistical results showed that there was positive significant co-relation in between Emotional Intelligence and football playing ability ($r = 0.254$) and sports Achievement Motivation and playing ability ($r = 0.309$). The findings further revealed that there was negative significant co-relation between Sports Competitive Anxiety and playing ability (-0.226).

Keywords: Emotional Intelligence, Sports Achievement Motivation, Sports Competitive Anxiety, Playing Ability and Football.

Introduction

Many literatures support the fact that psychological factors like emotional intelligence, achievement motivation and competitive anxiety have deep impact on playing ability regardless of different kind of sports. Being an enthusiastic of the game of football research scholar attempted to find out this relationship empirically. Hence the study chosen to conduct was entitled as "Correlational study between the selected psychological variables and playing ability of inter zonal university football players".

Methodology

Subjects

One hundred sixteen (116) male inter zonal university football players of 18 to 28 years old were selected by as subjects employing convenience sampling method. All the subjects were selected from the participating players of All India Inter University Football (Male) Tournament 2016-17.

Tests

Emotional intelligence was assessed by employing Emotional Intelligence Scale for sport persons developed by Rajitha Menon A. and Jayashree Acharya. Sports achievement motivation was assessed by administering Sports Achievement Motivation Test, a questionnaire developed by Dr. M. L. Kamlesh. Reiner Martin's questionnaire of Sport Competition Anxiety Test (SCAT) was used to assess sports competition anxiety. Football playing ability was measured by adopting 3 Judges rating method.

Findings

Descriptive statistics was employed to describe the data and to find out the relationship of emotional intelligence, sports achievement motivation and sports competitive anxiety with playing ability Pearson's Product Moment Correlation (zero order correlation) statistical technique was employed independently for each selected variable. To test the hypotheses level of significance was chosen at 0.05.

The descriptive statistics and Co-efficient of co-relation (r) values have been shown in Table – 1 and Table – 2 respectively.

Table – 1
Description of Selected Psychological Variables and Playing Ability of Inter Zonal University Football Players.

Variables	N	Range	Max.	Min.	Mean	S.E	SD	Var.	Skewness	Kurtosis
Emotional Intelligence	116	37	119	82	103.310	0.711	7.654	58.581	-0.362	-0.149
Sports Achievement Motivation	116	24	38	14	28.741	0.472	5.084	25.846	-0.839	0.334
Sports Competitive Anxiety	116	19	29	10	18.000	0.333	3.583	12.835	0.327	0.073
Playing Ability	116	25	49	24	40.103	0.537	5.788	33.502	-0.641	-0.090

N = Frequency Max. = Maximum Min. = Minimum S.E = Standard Error
SD = Standard Deviation Var. = Sample Variance

Table – 2
Relationship of Selected Psychological Variables with the Playing Ability of Inter-Zonal University Football Players.

Variables Correlated	Co-efficient of correlation (r) values
Emotional Intelligence with Playing Ability	0.254*
Sports Achievement Motivation with Playing Ability	0.309*
Sports Competitive Anxiety with Playing Ability	-0.226*

*Significant at .05 level

Tabulated $r_{0.05(114)} = 0.183$

An analysis of Table – 2 reveals that there is positive significant correlation in between emotional intelligence and football playing ability as the obtained co-efficient of correlation (r) value of 0.254 is higher than the tabulated ‘r’ value of 0.183 for the 144 degrees of freedom at 0.05 level. This positive relationship has been graphically depicted in figure – 1.

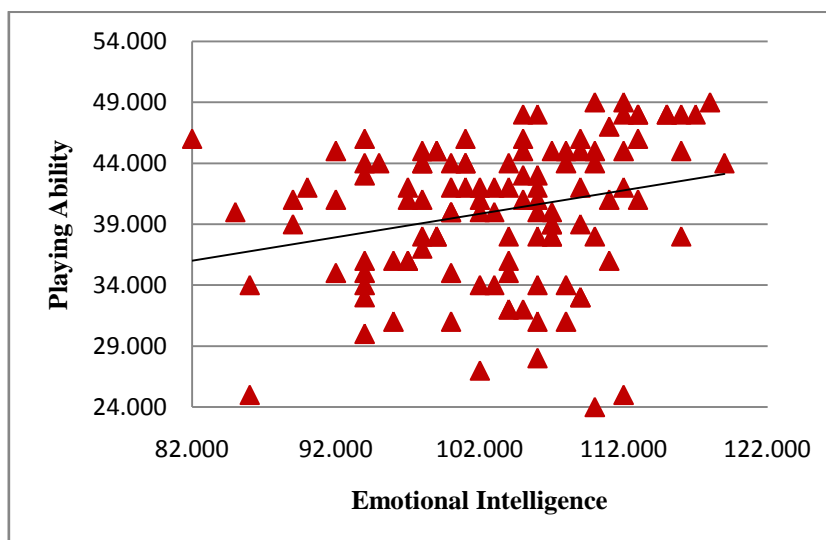


Figure – 1: Showing Positive Correlation between Emotional Intelligence and Playing Ability of Football Players.

From the same Table – 2 it is also observed that there is positive significant correlation between sports achievement motivation and playing ability of football players as the obtained co-efficient of correlation (r) value of 0.309 is higher than the tabulated ‘r’ value of 0.183 for the 144 degrees of freedom at 0.05 level. This positive relationship has been graphically shown in figure – 2.

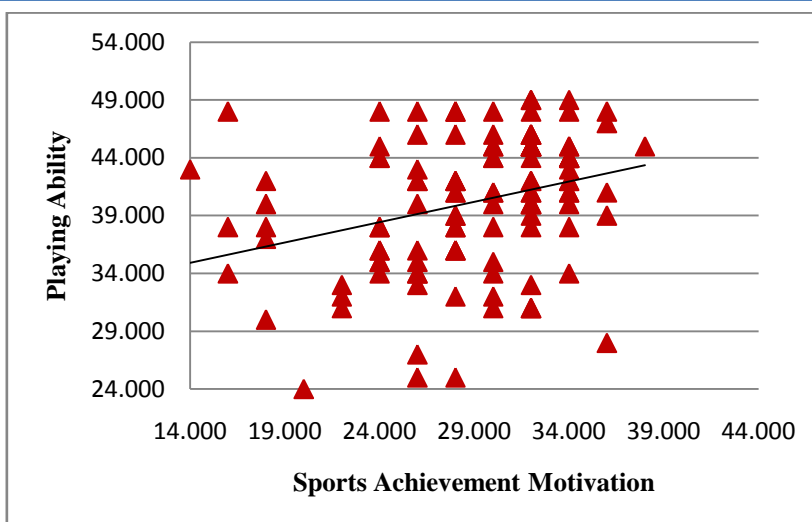


Figure – 2: Showing Positive Correlation between Sports Achievement Motivation and Playing Ability of Football Players.

Table – 2 also shows that there is negative significant correlation between Sports Competitive Anxiety and playing ability of football players as the obtained co-efficient of correlation (r) value of -0.226 is higher than the tabulated ‘r’ value of 0.183 for the 144 degrees of freedom at 0.05 level. This negative relationship has been graphically shown in figure – 3.

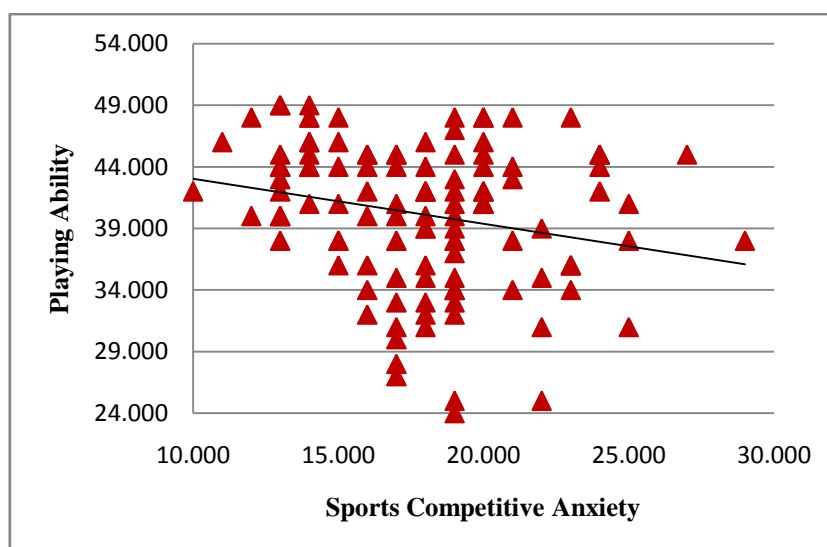


Figure – 3: Showing Negative Correlation between Sports Competitive Anxiety and Playing Ability of Football Players.

Discussion of Findings

Finding of statistical analysis showed that there is positive significant correlation between emotional intelligence and football playing ability.

A player with better emotional intelligence is found to control impulses better, to face difficulties better. While participating in competitions, even in critical and demanding situations too they are found emotionally composed and stable which result in overall better sports performance. Thus the results of this present study have shown positive relationship between emotional intelligence and football playing ability.

There is also observed positive significant co-relationship between sports achievement motivation and playing ability of football players. It may be because footballers with high level of

achievement motivation always strive for successes and try to avoid failures. Achievement motivation drives them to work hard with diligence and vitality; constantly steers them to move toward goals. In this way they start gaining dominance in challenging and difficult situations which make them efficient and able players. Therefore, such result might have occurred in this study i.e. positive significant correlation in between achievement motivation and playing ability is observed and which was anticipated.

Findings have shown that there is negative significant correlation between sports competitive anxiety and playing ability of football players, it may be attributed to the fact that every task to be performed seriously a certain degree of anxiety is needed. But too much anxiety or undue anxiety can lead to decrease the desirable performance. In sports too if the performer remains unusually anxious optimum performance cannot be exhibited properly; skills, techniques, tactics, strategies cannot be executed efficiently. The state of undue tension reflects on all of the aspects of his performing factors, interfering the overall sports performance.

Here too the result validates the fact that as anxiety starts to increase, performance leads to decrease.

Conclusion:

Under the limitations and considering the findings of this study it seems reasonably fair to conclude that there was significant positive relationship between emotional intelligence and playing ability and sports achievement motivation and playing ability of inter-zonal inter-university football players.

It is also concluded that there was negative significant relationship between sports competitive anxiety and playing ability of the same subjects.

Comparative Study Of Physiological Parameters Of Yogic And Runners

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Abstract:

The main purpose of the study was to find the Physiological parameters of Yogic and Runners. The researcher took the male subjects for the study. The sources of the data were made from the yoga players and runners, who were participated in the inter-collegiate tournament of Sant Gadge Baba Amravati University, Amravati during the session of 2016-2017. Forty (40) subjects were selected for this study. Twenty (20) subjects were taken from yoga group while the remaining twenty (20) were taken from runners. The 40 subjects were selected by the simple random sampling method. The data was collected from the subjects by using standard test and analysis and interpretation was done on the basis of special statistical techniques viz. mean, standard deviation and 't' test. The level of significance was kept at 0.05 for testing the hypothesis. The concluded that there is insignificant difference in systolic and diastolic blood pressure between yogic and runners and there is significant difference in pulse rate and exhale capacity between yogic and runners.

Keywords: Physiological parameters, Yogic and Runners

Introduction:

Physiological systems are highly adaptable to exercise. Each task has major physiological components fitness for the task required for effective functioning of the appropriate system. Involvement in systematic programme of training brings about desirable changes in the physical and physiological ability which enhances the athlete's performance in his sports. It is a known fact that adding regular physical activity to one's daily routine will improve health and well-being. Regular physical activity maintained body's physiological and physical fitness. Being physically active has also been proven to help build healthy bones, joints, and muscles and helps to perform better performance in competitions.[1] Different people think differently regarding the physical fitness. For a common man, to have a good physique is a symbol of physical fitness. Doctors consider physical fitness a proper functioning of the physiological systems of the body. In fact, physical fitness is considered as the capacity or ability of an individual to do or perform the routine work effectively with joy or pleasure. Physical fitness is more than the possession of strength, speed and endurance. Physical fitness means having the best work, to engage in recreational activities and to meet the emergencies when they arise. Physical fitness implies a relation between the task and work to be performed and the individual's capacity to perform that work moreover the recovery is faster and quicker.[2]

Methodology:

The researcher took the male subjects for the study. The sources of the data were made from the yoga players and runners, who were participated in the inter-collegiate tournament of Sant Gadge Baba Amravati University, Amravati during the session of 2016-2017. Forty (40) subjects were selected for this study. Twenty (20) subjects were taken from yoga group while the remaining twenty (20) were taken from runners. The 40 subjects were selected by the simple random sampling method. Following equipment would be used for collection of data:

1. **Blood Pressure:** It was measured by Sphygmomanometer.
2. **Pulse Rate:** Digital Stop watch was used to measure the pulse rate.
3. **Exhale Capacity:** It was measured by Peak Flow Meter.

Analysis of Data:

The data was collected from the subjects by using standard test and analysis and interpretation was done on the basis of special statistical techniques viz. mean, standard deviation and 't' test. The level of significance was kept at 0.05 for testing the hypothesis.

Table-1: Showing comparison of blood pressure between yoga group and runners

Variables	Group	N	Mean	SD	SE	MD	Ot	df	Tt
Systolic Blood Pressure	Yogic	20	115.250	4.191	1.162	0.500	0.430	38	2.02
	Runners	20	115.750	3.076					
Diastolic Blood Pressure	Yogic	20	80.800	2.505	0.664	0.550	0.828	38	2.02
	Runners	20	81.350	1.599					

Table-1 reveals that there is insignificant difference in systolic blood pressure between yogic and runners. The obtained t-value of 0.430 is less than the table value of 2.02 and reveals that there is insignificant difference in Diastolic blood pressure between yogic and runners. The obtained t-value of 0.828 is less than the table value of 2.02.

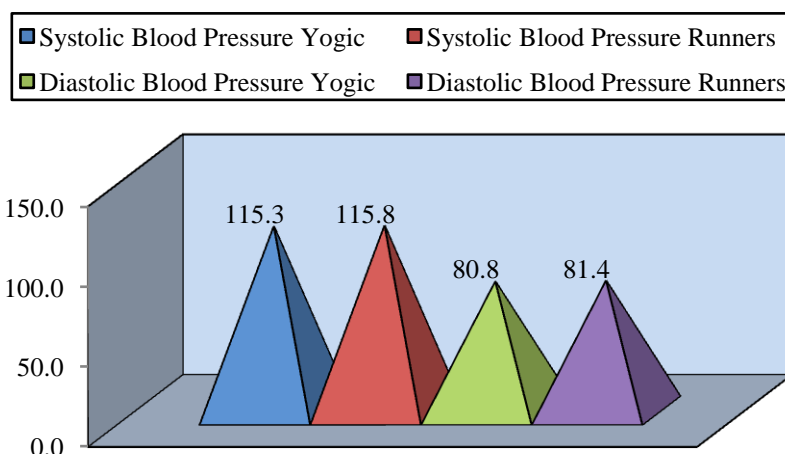


Fig.1: Mean value of blood pressure between yoga group and runners

Table-2: Showing comparison of pulse rate between yoga group and runners

Variables	Group	N	Mean	SD	SE	MD	Ot	df	Tt
Pulse Rate	Yogic	20	69.450	1.317	0.441	1.000	2.268*	38	2.02
	Runners	20	70.450	1.468					

Table-2 reveals that there is significant difference in pulse rate between yogic and runners. The obtained t-value of 2.268 is more than the table value of 2.02

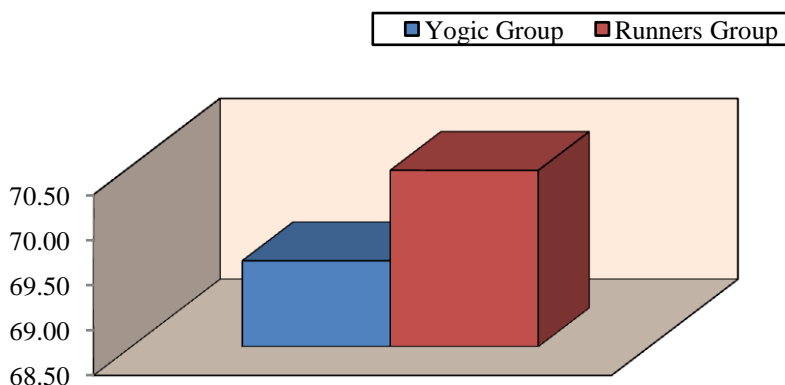


Fig.2: Mean value of pulse rate between yoga group and runners

Table-3: Showing comparison of exhale capacity between yoga group and runners

Variables	Group	N	Mean	SD	SE	MD	Ot	df	Tt
Exhale Capacity	Yogic	20	448.250	41.016	13.633	33.500	2.457*	38	2.02
	Runners	20	481.750	45.110					

Table-3 reveals that there is significant difference in exhale capacity between yogic and runners. The obtained t-value of 2.457 is more than the table value of 2.02

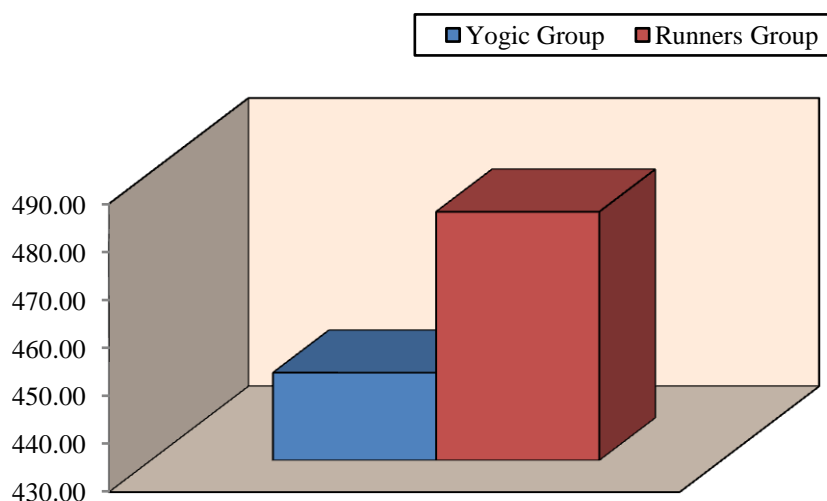


Fig.3: Mean value of exhale rate between yoga group and runners

Conclusion:

On the basis of the finding the following Conclusions were drawn. Thus from above we can conclude that there is insignificant difference in systolic and diastolic blood pressure between yogic and runners and there is significant difference in pulse rate and exhale capacity between yogic and runners.

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Comparative Study of Balance and Coordination of Female Athletes

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Amravati

Abstract

The purpose of the study was to comparative Balance and Coordination of various levels of Female Athletes. For this study Sixty (60) female athletes, 20 from each participated in the Maharashtra State Tournaments (20), Inter Collegiate Tournaments of Sant Gadge Baba Amravati University, Amravati (20) and Inter University Tournaments (20) with the help of purposive sampling method were selected from Sant Gadge Baba Amravati University, Amravati. The age of the athletes were ranged between 18 to 25 years. Subjects did not use any ergogenic aids or supplementations and also they were all free from any injuries during the collection of data. The following tools were used to collect the data on:- Balance was measured by Stork Balance Stand Test and Coordination was measured by Alternate Hand Wall Toss Test. In order to find out the significant difference between personality traits of different level of achievement of female athletes the analysis of variance (ANOVA) was applied at 0.05 level of significance. Result shows that significant difference were found in balance and coordination ability among State, Inter Collegiate and Inter University Players as obtained F-ratio was 3.45 & 3.80 which was greater than that of required tabulated 'F' value of 3.158 at .05 level of significance with (2, 57) degree of freedom.

Keyword: Balance, Coordination, Female Athletes, etc.

Introduction

Motor fitness, or motor physical fitness, refers to how an athlete can perform at his or her sport, and involves a mixture of agility, coordination, balance, power, and reaction time. Improving this form of fitness is an indirect result of training in any of these attributes. All five components of fitness are essential for competing at high levels, which is why the concept is seen as an essential part of any athlete's training regime. Motor fitness is a term that describes an athlete's ability to perform effectively during sports or other physical activity. Each components is essential for high levels of performance.

Balance

Balance is the ability to stabilize your body, whether standing still or maintaining motion. Ice-skating, skiing and bicycle riding are balance exercises. There are two types of balance – static and dynamic. Static balance refers to remaining upright while staying still, standing on one leg, for example. Dynamic balance deals with stability in motion. Test your balance by holding a stationary position as long as you can, without wobbling, after moving around.

Balance is involved with all motor performances to some degree but some performances heavily depend upon balance. As quoted by Singh, Dynamics and stability both are of great importance in all body contact sports such as athletics, football, soccer, baseball, basketball and hockey.

Balance is the main factor of fitness competences for success in sports. Good balance plays an important role in skill development and the overall fitness profile of the players. There are two types of balance in sports. First is static balance, which maintains the body's centre of mass and second is dynamic balance which moves outside the body base of support.

Coordination

Coordination describes the synchronization of your senses and your body parts in a way that enhances motor skills. Volleying a table tennis ball is an example of hand-eye coordination. A variety of tests measure coordination, including juggling or hitting a ball.

“Co-ordination is the ability to integrate muscles movements into an efficient pattern of movement”. Co-ordination makes the difference between good performance and poor performance. The efficiency of skill patterns depends upon the interrelation of speed, agility, balance and muscle movements into as well co-ordinate pattern.

It is the good advice to the performer and is necessary for judging such variables factor as speed, distance, direction, and size. Countless skills involve co-ordination of the eyes with hands. The players in Cricket, Volleyball, Basketball and handball do require eye- hand co-ordination when they exhibit their skills for successful performance. As there is lack of research available on important of eye-hand co-ordination for games. Where accuracy is more needed, the research worker was interested to conduct the study on Cricket, volleyball, Basketball and Handball players. The Nero-

muscular co-ordination of the individual which includes his ability to learn new skill and finally achieve competency in physical activities as essential to all phase of physical education. Activities for developing such co-ordination, therefore, should be considered.

Materials and Methods

Subject

Sixty (60) female athletes, 20 from each participated in the Maharashtra State Tournaments (20), Inter Collegiate Tournaments of Sant Gadge Baba Amravati University, Amravati (20) and Inter University Tournaments (20) with the help of purposive sampling method were selected from Sant Gadge Baba Amravati University, Amravati. The age of the athletes were ranged between 18 to 25 years. Subjects did not use any ergogenic aids or supplementations and also they were all free from any injuries during the collection of data.

Administration of the test

The following tools were used to collect the data on:-

- Balance was measured by Stork Balance Stand Test
- Coordination was measured by Alternate Hand Wall Toss Test

Statistical Analysis:

In order to find out the significant difference between personality traits of different level of achievement of female athletes the analysis of variance (ANOVA) was applied at 0.05 level of significance.

Table-1
Analysis Of Variance of Balance and Coordination among State, Inter Collegiate and Inter University Players

Variables	SV	SS	df	MS	F
Balance	between	108.93	2	54.46	3.45*
	error	895	57	15.7	
Coordination	between	36.23	2	18.11	3.80*
	error	271.7	57	4.76	

*Significant at 0 .05 level

Tabulated 'F' 0.05_(2, 57) = 3.158

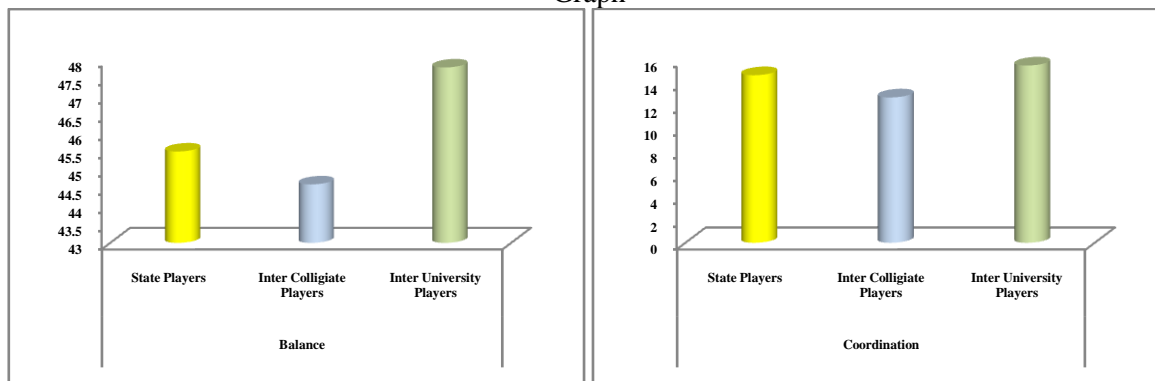
Table-2
Post Hoc Test

Variables	State Players	Inter Coll. Players	Inter Uni. Players	MD	CD
Balance	45.5	44.6		0.9	3.96
	45.5		47.8	3.3	
		44.6	47.8	3.2	
Coordination	14.7	13.65		1.05	2.18
	14.7		15.55	0.85	
		13.65	15.55	1.9	

*Significant at 0 .05 level

Above table revealed that there was significant difference were found in balance and coordination ability among State, Inter Collegiate and Inter University Players as obtained F-ratio was 3.45 & 3.80 which was greater than that of required tabulated 'F' value of 3.158 at .05 level of significance with (2, 57) degree of freedom. Hence, Post Hoc test was to see the Mean Difference in balance and coordination ability among State, Inter Collegiate and Inter University Players. The significant difference were found among state players and inter university players in reference to balance whereas significant difference were found among state players and inter collegiate players as well as inter collegiate players and inter university players in reference to coordination.

Graph



Conclusion

Result shows that significant difference were found in balance and coordination ability among State, Inter Collegiate and Inter University Players. In reference to balance, the reason may be attributed that everyday tasks such as bending, reaching and maneuvering around objects require the skill of balance. Any minor upset which affects our body system can have a negative effect on balance and create difficulties with movement. Several body systems are involved in the balance process, including the musculoskeletal system, inner ear, eyes and skin. Good balance relies on all of these systems and processes functioning perfectly. As inter university player's possess typically stereotyped with hardworking, strenuous and strong musculature body with great amount of energetic as compared to state and inter collegiate players. And in reference to coordination, the reason may be attributed that coordination is the ability to repeatedly execute a sequence of movements smoothly and accurately. This may involve the senses, muscular contractions and joint movements. Everything that we participate in requires the ability to coordinate our limbs to achieve a successful outcome - from walking to the more complex movements of athletic events like the pole vault. Inter university players go under various training programs and their more participation, more conditioning, more practice makes them more fit. Their body becomes more conditioned and able to bear and have more stress and hard work due to their better playing environment and participation in games as compared to state and inter university players.

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The Role Of Physiological Aspect

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Nowadays, the competitions in the field of games and sports have become complex and tough. Coaches as well as trainers are also trying hard to enhance the performance of sportspersons. In fact, the enhancement in performance largely depends on sports physiology, sports biomechanics and sports psychology. Sports physiology and sports biomechanics play vital roles in enhancing sports performance but to a limited extent. At this stage, sports psychology is helpful as it has no such limit. In fact, there are various psychological factors such as motivation, learning, interest, attitude, emotions, stress, anxiety, etc., which affect sports performance. So, a knowledge of psychology is essential for the people who are engaged in the field of sports. Stress and anxiety can be managed properly. Proper motivation strategies can be applied to sportspersons for enhancing the level of their sports performance.

Understanding Stress And Coping Strategies (Problem-Focused And Emotion-Focused)

Stress

Life would be simple indeed if our needs could always be satisfied. Stress is not new to human beings. It has existed throughout human evolution. At work or in day-to-day life, everyone experiences stress. For sportspersons stress may be double in comparison to a common man. Athletes/sportspersons not only worry about lifestyle and emotional stress, but they also have to worry about training and competition. Millions of trials and errors in the life process have brought human beings to this stage. We know that there are many obstacles in our life which interfere with gratification of our needs and complicate our efforts towards our goals. We all face delays, deprivation, failures, losses, restrictions, obligations, illness, conflicts, pressures, etc. such events place stress on us which may be very harmful to us. So, it becomes important for us to know the exact meaning of stress.

Meaning of Stress

Stress consists of bodily changes produced by physiological or psychological conditions that tend to upset the homeostatic balance. A woman under stress In medical language, 'stress' is defined as a perturbation of the body's homeostasis. According to the Oxford Dictionary, the stress is defined as "*a state of affair involving demand on physical or mental energy.*" Stress can also be defined as "the body's physiological response to demands placed on it." The demands or stress-producing agents are referred to as stressors. In simple words, stress is a condition or circumstance (not always adverse), which can disturb the normal physical and mental health of a person.

Types of Stress

Most of the stress situations we face in everyday life are very minor and easy to cope with. For example, when we feel hungry, we may stop what we are doing and go to take a meal. We can meet such demands very easily. That is why, we are not disturbed physiologically or psychologically. Generally, such type of stress is caused by **physical stressors**, such as diet, exercise, illness, noise, extremes of temperature, etc. On the other hand, there are many stressors that affect our lives which are cognitive in nature. These are called **cognitive stressors**. The stress caused by such stressors is difficult to cope with, such as divorce, losses, social disapproval, severe guilt feelings. etc.

Effects of Stressors

These stressors occur as a result of an individual's perception of an event. Along with the perception of an event, the effect of stress also depends on the intensity of stressor. In the same situation, one individual may interpret a stressor as a non-stressor, another individual as a moderate stressor and yet another individual as a major stressor. So, the effect of the stressor depends on the perception and intensity of the stressor. If the effect is severe, it can cause severe health problems and in extreme cases it can even cause death. Generally, it causes headaches, eating disorders, allergies, insomnia, backaches, frequent cold, fatigue, hypertension, asthma, diabetes, heart ailments,

cancer, etc. Today, with the rapid diversification of human activity maximum number of adults are facing stress-related problems. In the situation of stress, the brain prepares the body to take defensive action (the fight or flight response) by releasing stress hormones which are called cortisone and adrenaline. These hormones raise the blood pressure and the body prepares to react to the situation. This is called fight response. These hormones are absorbed in the blood stream and finally the effects of stress are reduced. When we do not face a stressful situation, the hormones remain elevated for a long time. It results in stress-related physical symptoms, such as nervousness, dizziness and fast heartbeats. This state of accumulated stress increases the risk of psychosomatic illness. It also weakens the immunity power of the body. It may lead to low potassium, white blood cells and body weight of the person. The effects of stress are not always negative; they are positive also. There are various instances of positive effects of stress. The unachievable tasks can be achieved with positive stress. Experts say that stress in moderate doses is very significant as well as essential in our life. It can be used as the best defensive system of our body against dangers both outside and inside the body. In case of accidents or sudden attack on life, body releases cortisone and adrenaline hormones which immediately make us more alert and our senses become more focused. Our body is also prepared to act with increased strength and speed in such situations to handle the stress. Research performed in this field suggests that certain amount of good stress can increase our performance.

Stress Management Techniques

There are a number of stress management techniques such as change in lifestyle, relaxation techniques (meditation, yogic exercises, physical exercises, listening to soothing music, deep breathing, massage, etc.), fitness, laughter, avoiding bad company, etc. These techniques have positive effect on reducing stress. Some techniques, which are easy to use are mentioned below.

- 1. Participation in Physical Activities:** When you face a stressful situation, you should engage yourself in regular physical activity or exercise. This can manage the stress effectively and efficiently. The exercise should be of moderate to high intensity. Aerobic exercises are good for reducing stress. Physical activity is one of the best means of releasing stress. It increases the fitness of individuals. Indeed, it has been observed that the individuals who are physically fit have a better health status. Such people are more resistant to the effects of stress than less physically fit persons.
- 2. Achieve a High Level of Physical Fitness:** For proper management of stress it is important to achieve high level of physical fitness. The goal of stress management is to use stress advantageously, not to eliminate all stress from one's life. Too little or too severe stress tend to lower our performance.
- 3. Cognitive Strategies to Change the Perception of the Stressor:** The individual who is under stress should use cognitive strategies to change the perception of the stressor. He should analyse the situation of stress. He should consider the stressor as a challenge rather than a threat. He should have a positive thinking towards the stress.
- 4. Building Self-confidence:** An individual, under stress should try to build his/her self-confidence. He/she should have enough confidence to deal with stress.
- 5. Relaxation Techniques:** Relaxation techniques are very effective in reducing stress. For physical relaxation, one should undertake various physical education programmes. If a person performs some exercises for legs, his muscles of legs will be tense after that. Other muscle group should be exercised so that the muscles of the legs could be relaxed. This change, while performing exercises, is beneficial for physical relaxation. There are other techniques of relaxation, such as deep breathing, massage, laughing whole-heartedly, practising yogasanas, meditation—Stress management technique *pranayama*, *Pranayama*, meditation, chanting of 'Aum'. etc. In yoga, *shavasana*, *makarasana*, *bhujangasana*, *shalabhasana*, *suptasana*, *ukrasana*, *nadishodhan*, *ujjayee* and *bharamari pranayama* as well as meditation are very beneficial for relaxation or reducing stress. Alcohol and drugs are also used for reducing stress but these are harmful to a person. These techniques may deal with the stress for a short term but in the long term, they can adversely affect the health of a person.
- 6. Developing Hobbies:** Developing various type of hobbies, such as gardening, TV watching, swimming, listening to music is also significant for reducing stress.
- 7. Staying Cool and Confident Under Pressure:** One should try to stay cool and confident when there is stress. Remaining in such a state can be helpful in reducing stress.
- 8. Avoid the Company of Stressed Persons:** Stressed people usually remain busy in talking about their own stress. They become pessimistic. You can be affected by their views. So, always avoid such people who remain under stress.
- 9. Don't Think About Stressful Thoughts:** It has been observed that most of the people always remain worried for no reason. In fact, most of these things might never happen in life. So, why waste all our energy worrying needlessly. In

conclusion, it can be said that stress can be reduced or managed properly with the help of the above-mentioned points.

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Role Of Advance Technology With Project To Enhance Sports Performance

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Abstract :

The world of sport is continually changing over the years, and the use of technology is just one of those areas that has made an impact on many sports in the modern day. for the latest technology ideas in the world of sport. One criticism of the use of technology is that it can slow down the speed of the game, but on the other hand for many people it makes watching it more enjoyable to see the correct decisions being made. Sports science projects are great for attracting notice at science fairs from your school friends and for impressing teachers and judges. We can also gain a wealth of information and knowledge with technology from doing science fair projects on sports for enhances performance.

In the world of sports, where stakes are increasing by every passing minute and an erroneous line-call can mean change of fortunes, there is an increasing reliance on technology to ensure that all arbitrations are unbiased. The component of human error in making judgments of crucial decisions often turns out to be decisive. In different Sports there are different decisions which cannot be determined by human. Hence, we need different type of technology to determine the perfect decision for different games and sports.

Introduction :

Now a day's sports and science interact we get powerful results. We have seen some considerable leaps forward in sporting performance as a direct result of technology either used during competition or in training, but the big question is, which technology has had the biggest impact on its respective sport? The game of cricket has attained great commercial importance and popularity over the past few years. As a result there has been felt a need to make the game more interestingly for the spectators and also to try and make it as fair as possible. The component of human error in making judgments of crucial decisions often turns out to be decisive.

Most professional sports in the United States have long used instant replay and other high-tech aids to help referees make the right call. Gridiron has used video replay systems to check referees' calls for many years. Basketball referees use replay systems to make sure players are shooting within the time allotted by the shot clock. In international cricket, the third umpire has been used, one sitting off the ground with access to TV replays of certain situations (such as disputed catches and boundaries) to advise the central umpires. The umpires out on the field are in communication via wireless technology with the other umpire. The third umpire is also asked to adjudicate on run out decisions, which he makes without consultation with the two central umpires. One sport that has resisted the use of high-tech assistance until very recently is soccer/football. Replays could be used to decide off-side decisions, whether a ball passes over the goal line, and clarify penalty decisions. . For this **Hawk-Eye** technology is one of most prominently used technology.

Sport Specific

- **Tennis** - it is now standard at the major tennis tournaments for a line review system to be in place, with players given power to review contentious line calls. It is powered by the Hawk-Eye ball tracking system.
- **Soccer / Football** - Soccer is looking at joining the 21st century, looking at various technologies for the goal line to determine if the pass passes over the line or not. The other popular football code, soccer, has been toying with the concept of Goal line Technology for quite a while, but has been slow to implement it at the elite level. Whether a ball has crossed over a goal line in both codes can have a great impact on the result of a game, and spectators expect that the right decisions are being made.

With so many cameras following the ball in AFL games, when a goal umpire makes a mistake, it is usually clear for all to see

- **Basketball** - the NBA uses replay vision to review 'last touch' decisions in the final two minutes of games, and also to determine whether players release the ball before the shot clock expires.
- **Cricket** - technology in cricket has been driven by advances in the TV coverage. Things that were once extra information provided by the TV networks are now being incorporated into the decision referral system (DRS), such as hawk-eye and hot spot, and maybe even the old favorite snick.
- **Aussie Rules Football** - umpire review system has also been implemented in AFL, with an off field umpire in certain circumstances adjudicating on whether the ball passes over the goal line or is touched, using video evidence via multiple camera angles.
- **Baseball** - In 2014 a challenge system was put in place for the MLB to use replays to challenge certain umpiring decisions.
- **Cross-Country Skiing** - There have been large advances in the sport of cross-country skiing, particularly with equipment design
- **Rugby Union** - In 2015, Hawkeye technology was used by rugby officials at the 2015 Rugby World Cup. The video review technology with synchronized camera views was used to improve decision-making by the television match official (TMO) and also used by medical staff to assist with player safety by identifying possible concussion instances and behind play incidents.
- **Rugby League** - The NRL was an early implementer of using the video referee to help adjudicate questionable tries.
- **Gaining An Advantage**
- Technology has been at the forefront of advances in sporting performance, with improvements in areas such as equipment design, uniforms, footwear, running surfaces and stadiums
- Any enhancements must still be within the rules of the sport. In track and field, athletes are obviously not allowed to have additional mechanical assistance. An interesting example is disabled athletes wearing prosthetics. Disabled athletes attempting to compete alongside their able-bodied counterparts are required to prove it does not give them an advantage. In 2012, South African sprinter and amputee Oscar Pistorius was the first athlete to compete at the Olympic wearing high tech blades. Leading up to his participation, there were questions about whether they gave him an unfair advantage. He was required to undergo numerous investigations, and was eventually allowed to compete, though in the future athletes wearing more advanced blades may not.
- While performance-enhancing drugs have been used for a long period at the Olympic Games, it was only in the 1960s that the danger was highlighted and a concerted effort was made to stop doping. The first Olympic athlete to test positive for the use of a performance-enhancing drug was in 1968, in this case alcohol. As the technology and testing techniques improved, the number of athletes discovered to be doping increased as well. Drug testing methods have had to continually advance to keep pace with the development of more ways to cheat.

Conclusion:

We have looked at various aspects of the HAWK-EYE technology. Initially, we outlined the main problems which one could encounter while trying to implement such a system for a sport like cricket. Then, we looked into the details of each step of the process which finally gives us the wonderful looking graphics that we see on TV during cricket with

other games and sports analysis shows. We got a fair understanding of the algorithms and mathematics which goes into the system. With the help of examples, we looked at the applications which the technology finds in modern day sport, with cricket ,tennis and some other games being our main focus. We got an understanding of how the graphics can be produced, using the setup, which also was described in detail. We have thus seen that the HAWK-EYE is a great innovation with other techniques, which puts technology to good use in the field of sports. The technology is used widely these days, in sports such as Tennis, Badminton and Cricket. The accuracy which can be achieved with the use of the system is making the authorities think seriously about reducing the human error component involved in important decisions. As the system runs in real time, there is no extra time required to see the visualizations and graphics. The system is also a great tool which can be used by players, statisticians, tacticians, coaches to analyze previous games and come up with strategies for subsequent ones.

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Effect Of Regular Yoga Practice On Body Composition Among Female College Students

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Abstract:

The main purpose of the study is to find the effect of regular yoga practice on body composition among female college students. To conduct the investigation 30 female college students between 18 to 20 years were selected from the college. All the subjects were divided randomly into two groups 'A' and 'B'. Each group consists of fifteen (15) subjects. The groups 'A' acted as experimental group and group 'B' acted as control group. Group 'A' underwent a regular yogic practice training programme for the duration of six weeks. Body composition was measured by J. V. G. A. Durnin and J. Womersley body fat measurement method. It was obtained by using skin fold measurements at four selected site namely biceps, triceps, sub scapular and supra-iliac. To analyze the data, mean standard Deviation and paired 't' ratio were worked out. The data were analyzed in Basic Language at the computer centre. All the analysis used was based on Standard Statistical Package. The findings of the study suggest that yoga can be used as an effective life-style modality to reduce the body weight, body fat, absolute body fat, lean body weight and to produce significant improvement in body composition in subjects of female college students.

Keywords: yoga practice, body composition

Introduction:

Yoga is important for Yogasiddhi and body purification. This is the reason why people are keen to get yoga education in this era of science today. Simply put, the posture to sit happily and unstable is called yoga posture. Yoga and exercise are not one but the benefits of both are the same. Posture is beneficial from every point of view. The same workout is done continuously for some time in exercise. While doing so, the body gets tired and sweat starts coming. This does not happen in yoga. Exercise is an exercise of special activity while exercising while the posture has its effect on all the organs of the body. After exercising, where there is exhaustion in the body, there is no desire to do any work for a while. Yoga does not even cause fatigue in the body and the body starts to feel lighter. When doing yoga, all the organs of the body are affected.

Methodology:

To conduct the investigation 30 female college students between 18 to 20 years were selected from the college. All the subjects were divided randomly into two groups 'A' and 'B'. Each group consists of fifteen (15) subjects. The groups 'A' acted as experimental group and group 'B' acted as control group. Group 'A' underwent a regular yogic practice training programme for the duration of six weeks. The following variables were selected for the study- Body composition. Body composition was measured by J. V. G. A. Durnin and J. Womersley body fat measurement method. The Durnin-Womersley body fat measurement method is among the more popular body fat calculation techniques because of the method's rather simple equations. Developed in 1974 by J. V. G. A. Durnin and J. Womersley, this method utilizes four skinfold measurements, which are the same for both males and females, to estimate body fat percentages. It was obtained by using skin fold measurements at four selected site namely biceps, triceps, sub scapular and supra-iliac.

Statistical Analysis:

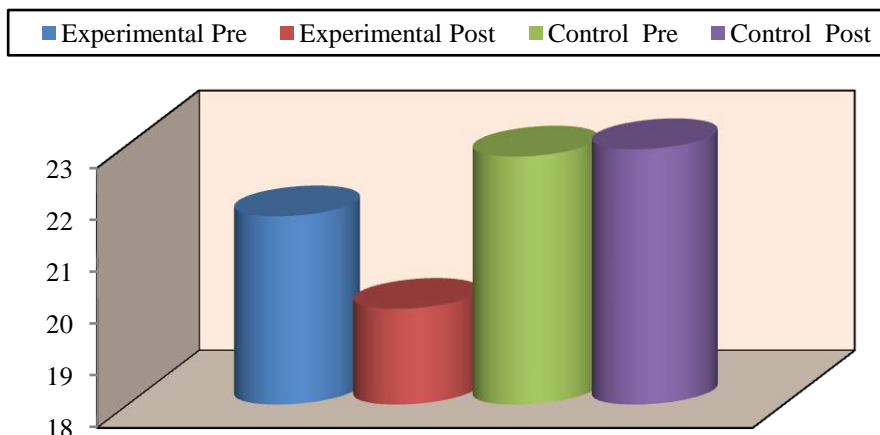
To analyze the data, mean standard Deviation and paired 't' ratio were worked out. The data were analyzed in Basic Language at the computer centre. All the analysis used was based on Standard Statistical Package.

Table-1:

The summary of mean and paired sample 't' test For the pre and post tests on body fat of experimental and control group

Variables	Group	Test	Mean	Variance	N	df	't'-ratio	t Critical Value
Body Fat%	Experimental	Pre	21.62	14.98	15	14	13.899*	2.145
		Post	19.84	14.05	15			
	Control	Pre	22.77	13.65	15	14	0.917	2.145
		Post	22.91	11.85	15			

Table- 1 reveals that the ‘t’ ratio values 13.899 of body fat for yogasanas and pranayams Training Group respectively are found to be significant at 0.05 level of significance. The table also shows that there is no significant improvement in case of control group as the calculated ‘t’ ratio value 0.917 is not found to be significant at 0.05 level of significance.



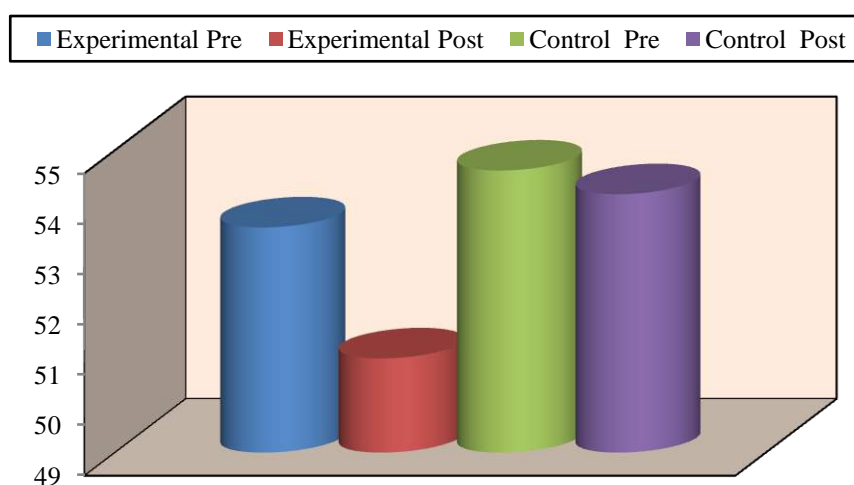
Graph-1: Mean value of body fat between pre and post test of experimental and control groups

Table-2:

The summary of mean and paired sample ‘t’ test For the pre and post tests on body weight of experimental and control group

Variables	Group	Test	Mean	Variance	N	df	‘t’-ratio	t Critical Value
Wight In Kg	Experimenta l	Pre	53.47	14.98	15	4	15.922*	2.145
		Post	50.87	13.98	15			
	Control	Pre	54.6	13.54	15	4	2.432*	2.145
		Post	54.13	11.55	15			

Table- 2 reveals that the ‘t’ ratio values 15.922and 2.432 of body weight for yogasanas and pranayams Training Group and control group respectively are found to be significant at 0.05 level of significance.

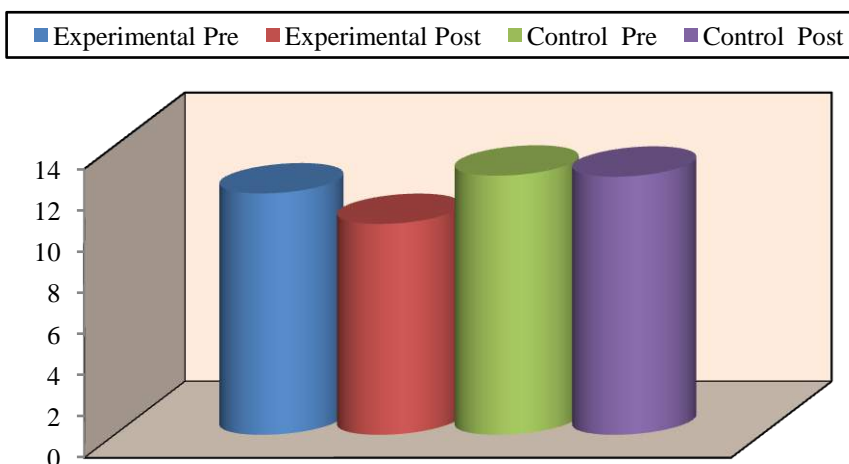


Graph-2: Mean value of body weight between pre and post test of experimental and control groups

Table-3:
The summary of mean and paired sample ‘t’ test For the pre and post tests on absolute body fat of experimental and control group

Variables	Group	Test	Mean	Variance	N	df	‘t’-ratio	t Critical Value
Absolute Body Fat (Kg)	Experimental	Pre	11.7	9.02	15	14	12.930*	2.145
		Post	10.22	7.45	15			
	Control	Pre	12.56	8.48	15	14	0.371	2.145
		Post	12.51	7.17	15			

Table- 3 reveals that the ‘t’ ratio values 12.930 of absolute body fat for yogasanas and pranayams Training Group respectively are found to be significant at 0.05 level of significance. The table also shows that there is no significant improvement in case of control group as the calculated ‘t’ ratio value 0.371 is not found to be significant at 0.05 level of significance.

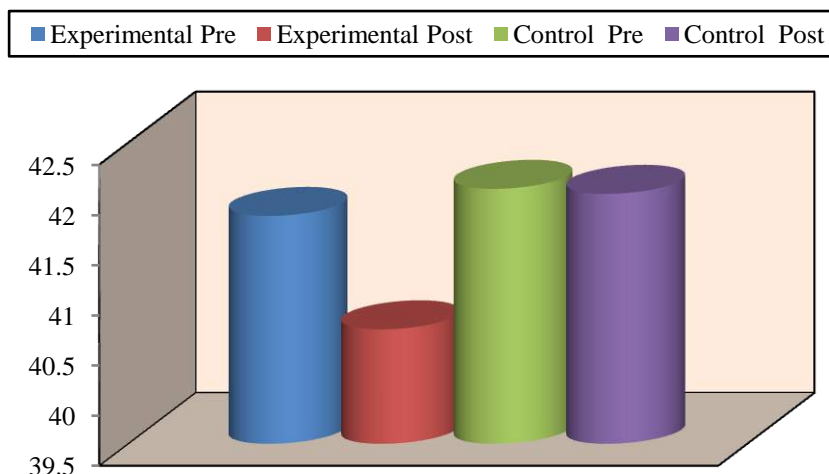


Graph-3: Mean value of absolute body fat between pre and post test of experimental and control groups

Table-4:
The summary of mean and paired sample ‘t’ test For the pre and post tests on lean body weight of experimental and control group

Variables	Group	Test	Mean	Variance	N	df	‘t’-ratio	t Critical Value
Lean body Weight	Experimental	Pre	41.77	0.79	15	14	11.865*	2.145
		Post	40.64	1.08	15			
	Control	Pre	42.04	0.61	15	14	0.441	2.145
		Post	41.99	0.81	15			

Table- 4 reveals that the ‘t’ ratio values 11.865 of lean body weight for yogasanas and pranayams Training Group respectively are found to be significant at 0.05 level of significance. The table also shows that there is no significant improvement in case of control group as the calculated ‘t’ ratio value 0.441 is not found to be significant at 0.05 level of significance.



Graph-4: Mean value of lean body weight between pre and post test of experimental and control groups

Conclusion:

The findings of the study suggest that yoga can be used as an effective life-style modality to reduce the body weight, body fat, absolute body fat, lean body weight and to produce significant improvement in body composition in subjects of female college students. While doing any kind of exercise where time is needed more, yoga does not require much time to do. If we are to do eight asanas everyday, even if given two to two minutes to a posture, then you have done all the positions in sixteen minutes. In such a short time every person can easily remove. There is no need for a large field and park too. The most beneficial thing is that no disease can be treated in the exercise, whereas yoga is also possible to treat many diseases. Exercise cannot be weak and patient person. There are many diseases in which the drug is more and the immediate effect of yoga.

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Nutrition And Dietetics

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Abstract

A number of factors contribute to success in sport, and diet is a key component. An athlete's dietary requirements depend on several aspects, including the sport, the athlete's goals, the environment, and practical issues. The importance of individualized dietary advice has been increasingly recognized, including day-to-day dietary advice and specific advice before, during, and after training and/or competition. Athletes use a range of dietary strategies to improve performance, with maximizing glycogen stores a key strategy for many. Carbohydrate intake during exercise maintains high levels of carbohydrate oxidation, prevents hypoglycemia, and has a positive effect on the central nervous system. Recent research has focused on athletes training with low carbohydrate availability to enhance metabolic adaptations, but whether this leads to an improvement in performance is unclear. The benefits of protein intake throughout the day following exercise are now well recognized. Athletes should aim to maintain adequate levels of hydration, and they should minimize fluid losses during exercise to no more than 2% of their body weight. Supplement use is widespread in athletes, with recent interest in the beneficial effects of nitrate, beta-alanine, and vitamin D on performance. However, an unregulated supplement industry and inadvertent contamination of supplements with banned substances increases the risk of a positive doping result. Although the availability of nutrition information for athletes varies, athletes will benefit from the advice of a registered dietician or nutritionist.

Keywords: nutrition, diet, sport, athlete, supplements, hydration

Why Nutrition Is So Important For Sports Performance

An athlete's body needs to be in tip top shape for optimal sports performance, therefore the fuel that goes into their body is critical. One way of looking at it is by comparing the body of an athlete to a formula one race car. Even with the best car and the best driver if not enough fuel is put into the car, or the wrong type of fuel is used, it simply won't be able to finish the event, let alone win. Similarly, whilst an athlete may have an optimal training routine and a great coach, if they do not eat the right foods at the right times, they are unlikely to achieve optimal performance.

This is where sports dietitians and nutritionists come in. Athletes in different sports have different needs; whether to gain muscle, lose fat, or fuel their body to survive weekly training, games, or a gruelling 14 hour ironman event or ultra-endurance marathon. Knowing what to eat, how much and when is vital. Poor nutritional intake and preparation contributes to poor performance, injury and adverse health outcomes.

‘Low Carb’ Diets Are Quite Simply Detrimental To Most Athletes, Especially For Those In Endurance Sports.’

Athletes in different sports need to consider what and how they eat. The need to look at their eating before, during and after training and match the foods they consume to the fuel they need for their sport and performance goals.

Whilst protein is the current ‘it’ food in sport, many athletes don't realise that for many sports carbohydrate intake is equally important, and that without an appropriate amount of carbohydrates performance is adversely affected, and that ‘low carb’ diets are quite simply detrimental to most athletes, especially for those in endurance sports. The reason for this is quite simple. Muscles use glucose (a carbohydrate) for fuel, not protein (protein is a building block, not the key fuel), so putting in extra protein instead of carbohydrates is almost like adding an extra side panel to the formula one car when it is running out of fuel and expecting it to keep going.

This is where working with a sports dietitian or nutritionist can be extremely beneficial for athletes, as they can work together to devise an eating plan that will optimise fuel levels at the same time as meeting their other goals (e.g. fat loss/muscle gain).

If working with athletes to optimise their eating and performance is of interest to you, you may want to consider a career as a sports dietitian or nutritionist.

How big a role does nutrition play in sports performance?

Joey Greany, MS, NASM Elite Trainer

Fitness

The role of nutrition in sports performance is very important. Proper nutrition must be available pre, during and post competition. You may have a great game or great workout, but if the proper nutrients are not consumed, your development will suffer. Think of your body as a high performance machine and that you must feed it right performance fuel.

Doreen Rodo

Nutrition & Dietetics

Nutrition plays a very important role in sports performance. Without adequate carbohydrate and fluid, an athlete will get tired very easily and quickly. Protein is needed to rebuild muscles. Without all three of these plus adequate vitamins and minerals, an athlete will never be able to perform to their maximum potential. An athlete needs to pay close attention to when and what he is eating prior to a game or match as well as how much he is drinking. If unsure of how to use nutrition to reach his or her maximum potential, an athlete should contact a Registered Dietitian.

Heather R. Mangieri on behalf of Academy of Nutrition and Dietetics

Nutrition & Dietetics

Nutrition is a major contributor to an athlete's overall sports performance. The main role of sports nutrition is to "support" the training program. So, eating for performance will change as the training regimen changes. Poor nutrition can lead to injury, fatigue and poor recovery, all three of which can hinder how well an athlete performs. A healthy diet and a performance diet are not that different from one another. Sports nutrition is more than carbohydrates to fuel activity and protein for mending muscles. All of the vitamins and minerals play a role in helping our bodies be the best they can be. Calcium and vitamin D for bone health, adequate iron to prevent fatigue and antioxidants to support the immune system are only a few roles nutrition plays. A board certified specialist in sports dietetics can help athletes build a performance diet tailored to their specific training regimen, age and gender requirements.

A Study Of Competitive Sport Anxiety In District Level Volleyball Players

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Abstract :

Competitive sport anxiety, is common in Volleyball players, It is the state of uneasiness and apprehension, about competitive sport events. Competitive sport anxiety is a distrustful response that takes place when a player undermines his or her capability in dealing with demanding circumstances. Competitive sport anxiety affects player's ability to perform effectively in any sport competition. The purpose of the current research is to evaluate the competitive sport anxiety difference between Cuddalore and Coimbatore Volleyball players. Participants consisted of 40 volleyball players ranging from ages 17 – 23 years who participated in district youth volleyball competition. A t-test was applied to measure the significance level between district level volleyball players. The result of the study revealed that there is a significant difference between cuddalore and the Coimbatore players. The Cuddalore players had higher mean anxiety scores than the Coimbatore players. Findings may assist coaches' understanding of the degree to which competitive sports anxiety exists in sports.

Keywords: Volleyball Players, Sports Anxiety, Level of competition.

Introduction

Anxiety is a common response to stress, and it is ranked as the first in prevalence of psychological illnesses. It occurs in the transitional periods of life, such as transfer from home to school, from childhood to adolescence, from work to retirement, or fertile period to menopause for women. Anxiety is a relatively recent term, and people use a number of expressions to describe the nuances of this feeling such as fear, stress, uncertainty, concern, and other popular expressions such as jittering, lack of patience, tension, etc. Naturally, there is a difference between desirable normal anxiety, such as the anxiety before an exam or anxiety at work, and the more severe and detrimental type of anxiety that requires medical attention. A normal degree of anxiety is healthy and positive because it pushes the human mechanism to avert possible or potential hazards in daily life. It benefits in the preservation of the self and to success in the demonstration of life, but the problem lies in the increasing level or the intensity of the anxiety that arises without any apparent reason (Davis, Robbins, & McKay, 2008). The stressful and anxiety-provoking circumstances, some athletes have been observed to experience deficits in performance, even to the point of “choking.” Thus, the relationship between anxiety and athletic performance has received considerable attention from researchers in the field of sport psychology. In an attempt to develop effective interventions that will help ameliorate these negative and sometimes detrimental experiences for the athlete, sport psychologists began studying anxiety, first as an independent construct and more recently as a set of interdependent constructs (Jones, 1995; Krane, 1992; Scanlan & Passer, 1978; Simon & Martens, 1977) [2]. In the context of sport participation, competitive anxiety is a predisposition to observe competitive settings as frightening and to react such settings apprehensively” .Competitive anxiety unveils itself in three types: cognitive anxiety (e.g., worry, selfdoubt),somatic anxiety (e.g., perceived faster heart rate, perspiring, and self-confidence.

In the view of researcher, Competitive anxiety is formed in competitive situations in sports. there are some social factors caused competitive anxiety such as repeated pressure an athlete faces from expectations of parents, coaches, and teammates root worry. Seeing competitive anxiety which originates because of impractical opinions, reflecting perception of an athlete about performance, it invites fear of being assessed by each of viewers, apprehensive, performance below anticipated levels in his prior match, a person with psychological experiments, disastrous problems and one's beliefs associated to the application of sport skills. Athletes of high is more responsive to catastrophe worries resulting in undesirable social and self- assessment .Due to Competitive anxiety not only athletes' feelings but athletes' performance is impaired This is one of the factors which causes the decline in the performance of players which brings player to such state where he starts losing confidence in him, feeling of worry, pressure, guilt discouragement, disruption and fear are common is the result of bodily changes.

Volleyball is a team sport in which two teams of six players are separated by a net. Each team tries to score points by grounding a ball on the other team's court under organized rules. Volleyball is a complex game of simple skills. Volleyball game requires comprehensive ability including physical,

technical, mental and tactical abilities. Among them sports anxiety of players exert marked effects on the skills of the players themselves and the tactics of the team. Football, as it is seen today has undergone a tremendous improvement since its birth. The game of football is one of the most popular games in the world.

Methodology

For the present study, Forty Volleyball players were selected from participants in the district level volleyball competition.

Table 1

Demographic information of volleyball players			
Item		Number of Participants	Percentage %
Level of competition	District	40	100
	Gender	Male	100
Race	Cuddalore	20	50
	Coimbatore	20	50

All the players were males. The subjects were divided into two groups according to their ethnicity. The group comprised of Cuddalore and Coimbatore players whose age ranged from 17 to 23 years.

Procedure

The Sport Competition Anxiety Test (SCAT: Martens, 1977) was used in this study, which consists of 15 items that measure competitive sport anxiety. The questionnaires were distributed to the subjects. Instructions were provided before subjects filled in the questionnaires. The statistical analysis t-test was applied to determine the difference of competitive sport anxiety between Cuddalore and Coimbatore volleyball players.

Results

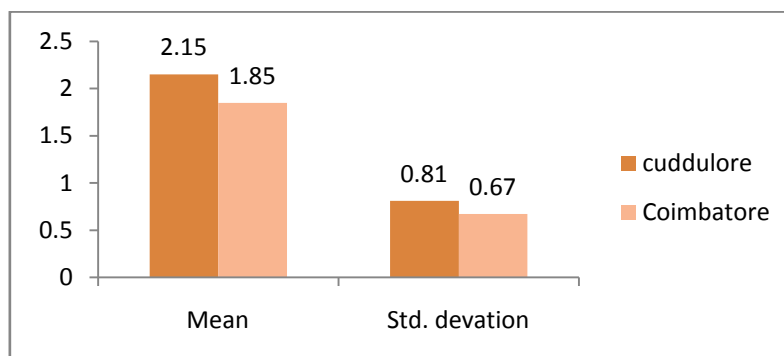
Table-2

Descriptive Statistics of Competitive Sports Anxiety of Cuddalore and Coimbatore Volleyball Players.

Variables	N	Mean	Std. deviation	t. value	Level of sig.
Cuddalore	20	2.15	0.81	16.84	0.207
Coimbatore	20	1.85	0.67		

Significant level is 0.207

In order to measure level of competitive state anxiety between Cuddalore and Coimbatore Volleyball players, means and standard deviations were separately calculated. The findings indicated that there was a significant difference between Cuddalore and Coimbatore Volleyball players. The mean score of the Cuddalore Volleyball players was higher than the Coimbatore players.



The graph shows responses of the Cuddalore (20) and Coimbatore (20) Volleyball players. It can be concluded that Cuddalore players have higher anxiety level than their counterparts.

Conclusion

The result of this study revealed that there are differences in competitive sport anxiety between the Cuddalore and Coimbatore volleyball players. The data analysis reveals significant difference between Cuddalore and Coimbatore Volleyball players. There are a number of inconsistencies between these findings and those of previous studies. This could be the consequence of using different means, or possibly having used a distinct training programme and not competition. It may also be related to the situation that arouses feelings of anxiety.

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Sport and Development

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What is sport and development?

‘Sport and development’ refers to the use of sport as a tool for development and peace. Actors in sport, academia, private sector, non-profit and non-governmental organisations, government agencies, UN agencies and international organisations, the media, the general public as well as young people are increasingly interested in the potential of sport as a tool to reach personal, community, national and international development objectives. They are also interested in how sport can be used as a tool for addressing some of the challenges that arise from humanitarian crises and in conflict and post-conflict settings.

As sport becomes increasingly part of humanitarian and development work, as well as a part of the corporate social responsibility practices of some private sector actors, interested parties are anxious to explore the potential, as well as the limitations, of sport in their work. For these very different actors to understand each other better, it becomes necessary to develop common definitions and frameworks for action in order to improve practice.

What is 'sport'?

In the area of Sport & Development, ‘sport’ is generally understood to include physical activities that go beyond competitive sports.

“Incorporated into the definition of ‘sport’ are all forms of physical activity that contribute to physical fitness, mental well-being and social interaction. These include: play; recreation; organized, casual or competitive sport; and indigenous sports or games.”

What do we mean by ‘development’?

Sport can have a positive impact on a number of different topics.

According to the Sport for Development and Peace International Working Group, sport is seen to have the most benefits in:

- Individual development
- Health promotion and disease prevention
- Promotion of gender equality
- Social integration and the development of social capital
- Peace building and conflict prevention/resolution
- Post-disaster/trauma relief and normalisation of life
- Economic development
- Communication and social mobilisation.

Sport has been linked to the Millennium Development Goals but it has been widely recognised that sport alone will not be able to achieve alleight goals. In the past, sport has been most commonly linked to: eradication of poverty and extreme hunger; achieving universal primary education; responding to the psychosocial needs of victims of disasters and emergencies; promoting gender equality and empowering women; and combating HIV/AIDS, malaria and other diseases.

Introduction

This thematic profile attempts to broadly introduce some of the current themes related to physical education and sport for children and youth.

In the literature related to physical education and sport there is much debate across the world over definitions of physical education, sport and physical activity. There is also great variance in the standard age boundaries for youth world-wide.

These issues will not be explored in detail here. Rather a number of links to further reading and resources are provided after each sub-theme to direct readers to additional information. Within schools, physical education is an essential component of quality education. Not only do physical education programmes promote physical activity, such programmes also correlate to improved academic performance under certain conditions. Sport can also, under the right conditions, provide healthy alternatives to deviant behaviour such as drug abuse, violence and crime.

Healthy development of children and young people through sport

Physical education and sport have an educational impact. Changes can be seen in (i) motor skills development and performance and (ii) educational potential. This shows the positive relationship between being involved in physical activities and psychosocial development.

Sport and physical education is fundamental to the early development of children and youth and the skills learned during play, physical education and sport contribute to the holistic development of young people. Through participation in sport and physical education, young people learn about the importance of key values such as:

- Honesty
- Teamwork
- Fair play
- Respect for themselves and others
- Adherence to rules

It also provides a forum for young people to learn how to deal with competition and how to cope with both winning and losing. These learning aspects highlight the impact of physical education and sport on a child's social and moral development in addition to physical skills and abilities. In terms of physical and health aspects of child and youth development, there is an overwhelming amount of evidence that focuses on the (mostly positive) effects of sport and exercise on physical health, growth and development.

Long-term involvement in physical activity

Physical education and sport also build health activity habits that encourage life-long participation in physical activity. This extends the impact of physical education beyond the schoolyard and highlights the potential impact of physical education on public health. To achieve broader goals in education and development, sports programmes must focus on the development of the individual and not only on the development of technical sports skills. While the physical benefits of participation in sport are well known and supported by large volumes of empirical evidence, sport and physical activity can also have positive benefits on education.

Sport as a 'hook'

Sport is an attractive activity for young people, and is often used as a draw card to recruit children and young people to health and education programmes. Sport and development projects that focus on educational outcomes use sport as a means to deliver educational messages to participants, and spectators in some cases.

Additionally, some programmes aim to promote and develop other aspects of education such as school attendance and leadership. Sport does not inherently provide positive educational outcomes. Much of the literature emphasises the crucial role of physical education teachers and other providers of physical activity and sport as determinants of educational experiences. The United Nations High Commissioner for Refugees (UNHCR), for example, are using sport and play programmes to encourage young people, particularly girls and young women, to attend school within refugee camps across the world. In addition, UNICEF has a strong focus on using sport to campaign for girls' education, promoting education through events and awareness campaigns.

Learning performance

Sport-based programmes have been shown to improve the learning performance of children and young people, encouraging school attendance and a desire to succeed academically. Whilst a majority of research into the health and development impacts of sport has been conducted in developed countries, there are studies that support this relationship in developing countries.

For example, a study on sports involvement among children and young people in Namibia has shown that those who participated in sport and physical activity were more likely to pass the Grade 10 examinations. There is further research that suggests this relationship continues in tertiary education.

Social and emotional development

In terms of the social aspects of child and youth development, there are three main areas that have been under consideration: inclusion and community building; character-building; and delinquency and community safety.

Inclusion and community building

The role of sport in inclusion has shown to be strongly linked to building social cohesion and social capital among young people and adults in communities. Sport has been used as a practical tool to engage young people in their communities through volunteering, resulting in higher levels of leadership, community engagement and altruism among young people. Positive peer relationships between young people are encouraged through physical activity and coaching is considered a key aspect of how physical activity can contribute to social inclusion among young people.

Social inclusion also relates to offering equal opportunities to sport and education programmes regardless of gender, ethnicity or ability. There is increasing attention on programme development both in and out of schools for example, to include girls, people with disabilities and refugees.

Character-building

The reasoning is that moral behaviour is acquired through social interaction that occurs through sport and physical activity conducted in a collective. Whether or not sport has a positive impact on character-building in an individual is highly dependent on the context of the programme and the values promoted and developed.

In this respect, physical education teachers, coaches, trainers or community leaders have a determining influence on a young person's sporting experience and on the degree of 'character-building' that can arise. Some research also indicates that 'physical activity outside of competitive sport' may be more effective in promoting mutual understanding and empathy among young people.

Delinquency and community safety

Research suggests that sport can be used as a means to reduce deviant behaviour among children and youth. But participating in physical activity does not directly impact on deviant behaviour. Accordingly, programmes should combine sports and physical activities with leadership and job-skills development and training to address risk factors in children and youth. The majority of programmes that target delinquent youth aim to act as either:

- Diversions for delinquent youth away from other delinquent youth
 - Rehabilitation activities for those previously involved in delinquent behaviour
 - Gateways to engage the target group in sport in order to establish relationships with authority figures, social services, educational programmes and marginalised groups
- 'Gateway' programmes seek to address the underlying risk factors for crime involvement, early school leaving, and other social problems that contribute towards delinquency by providing 'at risk' youth with access to social and job-skills training, education programmes and/or leadership programmes.

To increase the success of a sports programme in this area, activities should be:

- Provided through supportive, 'bottom-up' approaches;
- The activity must be purposeful to the individual, tailored to their individual needs; and
- De-emphasise regulations and winning.

Policy developments

International policies have influenced the delivery of physical education and sport across the world. While these policies may not always turn into action, they have helped national-level policy to develop in many parts of the world.

In 1959, the Declaration on the Rights of the Child was one of the first international instruments linking physical activity and education for children stating that "the child shall have full opportunity for play and recreation, which should be directed to the same purposes as education." UNESCO, the United Nations Educational, Scientific and Cultural Organisation, the UN's lead agency for physical education and sport, introduced the first landmark policy related to physical education in 1978. Titled, the International Charter of Physical Education and Sport introduced by UNESCO in 1978, it declares that "every human being has a fundamental right of access to physical education and sport, which are essential for the full development of his personality." Read more about the International Charter's consideration of people with disabilities' access to sport and physical activities.

A serious decline in the presence of physical education during the 1990's led to the development of two World Summits on Physical Education. These initiatives highlight the level of

international policy interest, awareness of governments around the world and subsequent calls for action to promote and develop physical education world-wide.

World Summits

The first World Summit was held in Berlin, Germany in 1999 and the second in Magglingen, Switzerland in 2005. A major outcome of each World Summit was an Action Agenda presented to Ministers responsible for Physical Education and Sport.

United Nations and International Policy

The United Nations Inter-Agency Taskforce on Sport for Development and Peace advocates the use of sport to achieve each of the Millennium Development Goals, not only the second MDG that aims for universal primary education. The taskforce recognises that education is central to the achievement of all of the MDGs and sport is a key component of quality education. Access the UN Inter-Agency Taskforce on Sport for Development and Peace report
A large number of countries have introduced national policies related to the provision of physical education in schools and yet even with these international activities and national instruments in place, there is a large gap between policies and the actual realities of physical education practices in schools worldwide.

Sport and physical activity as an entitlement

Many international and domestic policies highlight the role of sport as a key component of child development along with the associated aspects related to sport, play and recreation, such as the right to participate, to freedom of expression and a right to be involved 'freely in cultural life and the arts' (as stated in the UN Convention on the Rights of the Child). This allows for sport, recreation and play to be considered not only as a necessary component of child and youth development (a 'needs' based perspective) but also one in which sport, recreation and play are considered as entitlements (a 'rights-based' perspective).

Action that incorporates sport in education and child & youth development should be aware of how sport, recreation and play can be considered as both a necessity and as an entitlement.

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Effect Of Surya Namaskar On Weight Loss In Obese Persons

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Abstract

The aim of this study was to observe the effect of Surya namaskara on obese persons towards reduction of weight. 30 persons from Janardhan Swami YogAbhyas Mandal Yavatmal, Maharashtra, having average age of 25-30, weight 70-82.5 kg and height 155-167 cm. participated as subjects. All of them were in normal healthy condition. The literature mentions weight loss due to regular practice of Surya namaskara and improvement in the performance. The experimental study revealed that a regular practice of Surya namaskara for 30 days significantly reduced weight of 15 obese persons of the experimental group. This research confirms that the obese persons can significantly reduce their weight with the help of Surya namaskara exercise.

Key words: Surya Namaskara, weight loss, obesity.

Introduction:

Surya namaskar provides vigour and vitality and keeps us healthy and fit. The Sun moves through 12 Rashis or zodiac signs and therefore it has got 12 names. One round of Surya namaskar consist of 12 steps or postures, designed in such a way that our muscles and joints become stronger and yet flexible. The respiration is also adjusted as per the posture and the movement. Therefore Surya namaskar increases blood circulation. This has an influence on the endocrine system. It makes us more alert, energetic and brightens up our intellect. It maintains the freshness of our mind.

Purpose of the study:

To study the effect of Surya namaskar on obese persons in respect of their weight.

Hypothesis:

Surya namaskar practice would significantly decrease weight in obese persons.

Twelve Mantras of Surya namaskar:

There are twelve names of Lord Sun (Surya) which are recited with or without beeja mantra, one by one before each round of Surya Namaskar. If Surya Namaskar is done with these mantras, one is greatly benefitted with Sun energy. These are:

1. Om Mitrayanamah
2. Om Ravayenamah
3. Om Suryayanamah
4. Om Bhanvenamah
5. Om khagayanamah
6. Om pushnayanamah
7. Om hiranyagarbhayanamah
8. Om marichayenamah
9. Om Adityayanamah
10. Om Savitrenamah
11. Om Arkayanamah
12. Om Bhashkarayanamah

Technique of Surya namaskar

One round of Surya Namaskar consists of following twelve postures:
Stand upright and join both the feet. The heels should be united while the toes should be apart. Head, neck and body should be in one line. Join the hands in namaskar position. Breathe normally. This is the initial posture. When the round is over this is 12th posture. Now chant first name of the Lord Sun and start first round of Surya namaskar.

Methodology:

30 obese persons with the age range of 25-30 yrs, weight 70-82.5 kg and height 155-167 cm. were selected for the study. They were divided into two equal groups of 15 subjects each. One group was treated as an experimental group and another one as control group. The training of Surya namaskar was given to only experimental group. The control group was not given any kind of yogic exercise. The training programme of 30 days was organized for 60 minutes daily practice of Surya namaskars at 6.00 to 7.00 a.m. The tests were conducted on two occasions 1. Before the training of Surya namaskar and 2. After 30 days of practice of Surya namaskar. After the completion of the practice period, the weight of subjects of experimental & control groups were measured compared and the results were statistically analyzed.

Research Tool:

Digital weighing machine

Results:

The statistical analysis was done by using ‘t’ test for the following comparisons.

1. Intra group comparison
2. Inter groups Comparison

1. Intra group comparison:

The object of intragroup comparison was to examine pre and postscores of each group. On the basis of this comparison it would help to reach the conclusion aided with the following steps:

1.1 Control group

Table-1

Comparison between pre & post-test mean scores of control group on weight (kg)

Variable	Conditions	M e a n	S D	“T” Value
Weight (Kg)	Pre-Test	77.62	3.59	0.041
	Post-Test	78.01	3.39	

The study shows the results of the test of significance of difference in mean score of the control group between pre and post test. In control group the obese subjects did not show any change regarding weight. It may be noted from the table no.1 of mean value that the subjects score 77.62 kg and 78.01 in pre and post conditions, respectively. The ‘t’ value of -0.041 is not significant.

Table-2

Comparison between pre & post-test mean scores of Experimental group on weight (kg)

Variable	Conditions	M e a n	S D	“T” Value
Weight (Kg)	Pre-Test	78.46	2.83	4.82
	Post-Test	74.88	2.91	

The results show the pre and post condition of experimental group. It may be noted that mean value of the subjects are 78.46 kg and 74.88 kg respectively. The ‘t’ value of 4.82 at level 2.15 indicates that the practice of Surya namaskar has effect on weight loss.

2. Inter group comparison

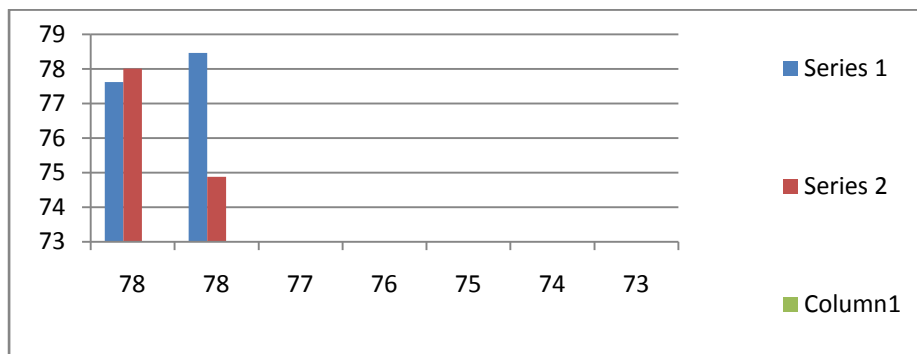
Table-3

Comparison between post-test mean scores of Control and Experimental group on weight (kg)

Variable	Conditions	M e a n	S D	“T” Value
Weight (Kg)	Control group	78.01	3.39	0.02
	Experimental group	74.88	2.91	

Table no.3 presents the significance of mean difference between control and experimental group on weight and the control group has recorded higher mean score i.e. M=78.01 kg as compared to experimental group that is 74.88 kg. Low score indicates improvement of experimental group on weight loss. The ‘t’ value is 0.02 which is, however, insignificant at the 2.15 level.

Comparison of mean weight of control and experimental group.



Control group Pre; 77.62, Post : 78.01

Experimental group Pre: 78.46, Post : 74.88

Discussion :

Results of this study clearly indicate that one month regular practice of Surya namaskar causes weight loss in the obese persons. Surya namaskar is a moderate physical exercise which is linked with the breathing. It consumes calories moderately without much fatigue or exhaustion.

In the present study the obese persons have lost almost 4 Kgs in one month which is considered physiologically normal. The diet of these persons was not controlled and still the weight loss effect was seen. That means obese persons will have to continue such moderate exercise of Surya namaskar for more than one month till they reach their weight loss target. Regular practice of yoga with proper guidance has different effect on obesity, which is permanent in nature than other techniques for obesity reduction (7). The dynamic series known as *Surya namaskar* is most important for obesity management.

Conclusion:

The present study establishes that one month regular practice of Surya namaskar helped obese persons to reduce their weight.

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Effect Of Core Training On The Physical Fitness And Muscular Strength Of Teenagers**Afsana K. Sheikh**Research Scholar, R.T.M.
Nagpur University Nagpur**Dr. Sanjay Choudary**Assistant Professor,
Shri Binzani City College Nagpur.**Abstract**

The objectives of the study were to prepare the 10 weeks Core Training Programme of Core Exercises and the administration of the Programme. To study the effect of Core Training programme on the Physical Fitness and Muscular Strength of teenagers. For the study, 140 teenagers in the age group of 13 to 15 years were selected from the Prahar Military School, C.P.& Berar School And Kohinoor Cricket Club. The subjects were selected by purposive sampling method. As the researcher wants to study the effect of Core Training Programme on the Physical Fitness and Muscular Strength of teenagers thus study was conducted by Experimental Method. The Criterion measure adopted in this study are as follows : Strength of Psoas and lower abdominal muscles, Strength of upper Back muscles, Explosive leg strength, Agility, Flexibility and Speed. It was observed from the findings that there was significant difference between Experimental and Control group in the means of all variables like Strength of Psoas and lower abdominal muscles, Strength of upper Back muscles, Explosive leg strength, Agility, Flexibility and Speed. This indicated that Core Exercises training program had positive effect on Strength of Psoas and lower abdominal muscles, Strength of upper Back muscles, Explosive leg strength, Agility, Flexibility and Speed in the Experimental group. Hence the Research hypothesis was accepted. From the result of the study, it was observed that core training for the period of Ten week was effective to increase the Strength of Psoas and lower abdominal muscles, Strength of upper Back muscles, Explosive leg strength, Agility, Flexibility and Speed significantly. From the result of the study, it can be concluded that core training for the period of ten week was effective to increase the Physical Fitness Components and Muscular Strength. Hence it is evident from the study that core training strengthens the core muscles and fitness which are very important to create and transfer of forces to the extremities.

Keywords: Core Training, Physical Fitness, Muscular Strength & Teenagers.

Introduction

Scientific training program is part and parcel for achieving top performance. There are various methods available so far to achieve skills and physical fitness level in games and sports. It is well known that core training is effective in enhancing performance as well as physical fitness almost in all sports, because core is involved in every movement an individual does. Several research reports support the statement. However very little information is available about the effect of core training on physical fitness components. It was therefore considered appropriate by research scholar to investigate the effectiveness of core training on selected physical fitness components and Muscular Strength of Teenagers. The objectives of the study were: To prepare the 10 weeks Core Training Programme of Core Exercises and the administration of the Programme. To study the effect of Core Training programme on the Physical Fitness and Muscular Strength of teenagers. . For testing the statistical significant difference among the pretest and posttest of both groups, the data was analyzed to determine the effectiveness of core Exercises programme on the physical fitness and muscular strength of teenagers by descriptive statistics and Independent samples 't' test. The level of significance was kept 0.05 in order to test the Hypothesis.

Material and Methods

For the study, 140 teenagers in the age group of 13 to 15 years were selected from the Prahar Military School, C.P.& Berar School And Kohinoor Cricket Club. The subjects were selected by purposive sampling method. As the researcher wants to study the effect of Core Training Programme on the Physical Fitness and Muscular Strength of teenagers thus study was conducted by Experimental Method. The Criterion measure adopted in this study are as follows : Strength of Psoas and lower abdominal muscles, Strength of upper Back muscles, Explosive leg strength, Agility, Flexibility and Speed. For the present study the Pretest-Posttest Non Equivalent –Group Design was used. One hundred forty subjects under Pretest posttest non equivalent group design was selected for the study. The subjects were further divided into two groups, consisting of 70 students in each group, they were known as experimental Group and Control Group. The experimental treatment was given to experimental Group. Scores on physical fitness and muscular strength variables were obtained before and after the experimental period of 10 weeks. The data was collected by Pre as well as Post test for the above chosen variables from the subjects selected for the study. The data was collected on the basis of the selection of the test The data of physical fitness components and muscular strength was

collected by administrating the physical fitness and muscular strength tests. The tests were taken before and after the training period of 10 weeks. The duration of core Exercise training program was of 10 weeks (70 days). The training was given on alternate days (three days per week). As it is already mentioned, that Prahar Military School, C.P.& Berar School and Kohinoor Cricket Club were selected for the study. So in this regard the Duration of training for one day was one hour in Evening between 4.00 to 5.00 pm in school and Cricket club ground . The intensity of training was increased by increasing the number of sets, repetitions and reduced the rest time in between the sets. For testing the statistical significant difference among the pretest and posttest of both groups, the data was analyzed to determine the effectiveness of core Exercises programme on the physical fitness and muscular strength of teenagers by descriptive statistics and Independent samples 't' test. The level of significance was kept 0.05 in order to test the Hypothesis.

Findings of the Study

From the above analysis and interpretation of data following findings may be drawn.

1. Core training program improves Strength of Psoas and lower abdominal muscles significantly.
2. Core training program improves Strength of upper Back muscles significantly.
3. Core training program improves Explosive leg strength significantly.
4. Core training program improves Agility significantly.
5. Core training program improves Flexibility significantly.
6. Core training program improves Speed significantly.

It was observed from the findings that there was significant difference between Experimental and Control group in the means of all variables like Strength of Psoas and lower abdominal muscles, Strength of upper Back muscles, Explosive leg strength, Agility, Flexibility and Speed. This indicated that Core Exercises training program had positive effect on Strength of Psoas and lower abdominal muscles, Strength of upper Back muscles, Explosive leg strength, Agility, Flexibility and Speed in the Experimental group. Hence the Research hypothesis was accepted.

From the result of the study, it was observed that core training for the period of Ten week was effective to increase the Strength of Psoas and lower abdominal muscles, Strength of upper Back muscles, Explosive leg strength, Agility, Flexibility and Speed significantly.

Conclusion

From the result of the study, it can be concluded that core training for the period of ten week was effective to increase the Physical Fitness Components and Muscular Strength. Hence it is evident from the study that core training strengthens the core muscles and fitness which are very important to create and transfer of forces to the extremities.

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Role of Yoga in enhancing the Fitness for Young India

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For Kids, the definition of fun today has been limited to television, mobiles phones and video games. Often, parents find it hard to get their kids indulge in physical exercises. Moreover, with the continuously mounting pressure to excel in studies and be at the top of other competitive activities, kids are left stressed and sometimes even depressed. This is exactly where yoga can come to their rescue.

Yoga is a multi-faceted tool that offers multiple benefits to not just adults but even the younger ones. Apart from keeping them fit and healthy, it also provides them with knowledge and a broader outlook towards life. It would not be wrong to call it yoga a way of life that is low on cost and is extremely helpful to have a positive impact on one's life from a very young age.

Yoga: A yogi is someone who engages in practices in order to realize this essential existence and their own potential power of awareness. It's great to have a healthy body, but this awareness is real power yoga!

Yoga, in Sanskrit, means to completely know yourself and to be at peace in yourself. It is not possible to define this peace except to say it is freedom from all suffering, freedom from doubt and freedom from confusion. A natural blessedness unfolds in you as you feel this peace and you increasingly realize this as the core essence of your life. This realization is called yoga: a clear knowledge of the oneness of yourself with the source of all life.

Being established in this knowledge, your life starts to flow with a vital freshness and harmony, with clarity, mental alertness and a fullness of loving understanding. Our consciousness is self-reflective; in other words, you have the capacity to know the essence of your own life and mind. This potential has been researched for thousands of years by mediators'. Yoga is an exploration into this nature of consciousness and existence. Yogis have discovered, through deep personal inquiry that at the root of their own life exists freedom and an-ever-present space.

The Bhagavad Gita's yoga is something nearly every human participates in, to one degree or another, in one form or another. They just don't know it. For in addition to *asana* and *pranayama*; yoga, according to the [Bhagavad Gita](#) is:

1. Clear, discerning, totally voluntary, dynamic participation in one's life.
2. Everlasting, primal, revealing, the archetypal light and fueled by love.
3. Sacrifice that elevates us, motivates us, informs us, actively engages us and does so in a manner that is harmonious to all other living beings.
4. Selfless, cleansing, freeing, balancing, inspiring, and joyfully performed actions based on a vision in which one experiences peaceful interconnectedness with all life around them.
5. Nourished in the company of other yoga practitioners, by offerings of love, and the understandings they give rise to.

Introduction:

Now we need to pay special attention to the athletes' needs, as their sport training naturally creates physical and mental imbalances. Depending on the sport, an athlete is prone to becoming strong in one area and weak in others. There is a mobility capacity that is often imbalanced in athletes that can create severe injury. For instance, an athlete may find certain movements to be very easy and others to be very tight, rigid, or difficult. Typically, athletes are one-dimensional and yoga can diversify that.

It is very difficult for an athlete to encounter a true yogic experience, as they are naturally competitive and hard on themselves. Athletes are likely to push themselves physically, ignoring cues and signs of pain in the body. A yoga practice will encourage a different level of body awareness. Yoga will encourage the athlete to listen to their body and note the difference between pain and discomfort. This will allow the athlete to prevent injury and possibly rehabilitate injury at a more

appropriate pace. The yoga mat can offer a safe space for the athlete to remove their competitive nature and receive a much needed mental break from the pressures of the playing field.

Why Yoga should be practiced by Players, Athletes and Young Children: Among yoga's many benefits, stress relief ranks at the top. According to Timothy McCall M.D. (Medical Editor for the Yoga Journal), just about any system of yoga can help reduce stress levels, and the endemic of excessive stress levels is undoubtedly a major reason for the current surge in yoga's popularity.

- By incorporating breathing techniques into the athlete's training regimen, we can slow down the breath; reduce stress and increase court awareness and clarity. The easiest of all techniques is to simply begin to breathe through the nose rather than the mouth. Lung capacity and focus will increase with nostril breathing. The greater resistance to air flow through the nasal passages compared to the mouth results in a naturally slower respiratory rate, which easily translates to a lower resting heart rate and quicker recovery.
- Abdominal breathing, in which the diaphragm is used for maximum advantage on the inhalation and the abdominal muscles help squeeze air out on the exhalation, results in larger breath volume. The diaphragm is also used as a stabilizer for the skeletal system during this breathing technique. Slower, deeper breathing is much more efficient in bringing oxygen into the body while not exhaling more carbon dioxide (CO₂) than is desirable. Rapid, shallow breaths, in contrast, tend to deplete CO₂ levels, which has a number of negative effects, including promoting mental agitation, says McCall. (McCall, 2007)
- Now-a-days, technology has created a society of hyper stimulated beings. Everyone wants immediate gratification and what we want is always at our disposal. Although this can be a positive tool for professionals, it is a leading cause of stress and burnout. Fortunately, one of the 8 limbs of yoga, Pratyahara, allows us to turn our senses inward. This practice not only relieves stress but gives us a platform for visualization and meditation.
- Strength is also acquired in addition to stress relief by athletes; in underutilized muscles during a yoga practice. A regular, energizing yoga practice will cultivate strength as the athlete learns each posture. Not only will the athlete build strength in poses such as Virabhadrasana A & B (Warrior I & II), they will improve lean muscle mass. Sports such as swimming, running, and cycling typically under-utilize certain/specific muscle groups. Yoga will increase core stability and significantly decrease the likelihood of injury.
- With the rapid growth of athletes, self control and stability are questionable. Yoga provides stability and balance, which equates to enhanced movement control. As the athlete cultivates balance, they will have improved technique and form. This leads to a more efficient stroke for a swimmer, a more fluid golf or bat swing, a longer running stride and even an improved jump shot. (Roll, 2012)
- These days, flexibility is the most widely assumed benefit of yoga, it can do wonders for an athlete. Yoga improves crucial joint and muscular flexibility. This translates to greater range of motion in the shoulders and hips. A greater range of motion will make a volleyball spike more powerful, a swimmer able to pull more water, or allow a batter to have a more thorough swing at bat.
- Mental and emotional control is another great benefit, especially for the youths. The physical benefits of a regular practice are more commonly known. The mental benefit athletes acquire put yoga one step above all other training aspects. As the time comes to move inward on the mat, or quiet the mind, athletes tend to look for the exit. It is our job as teachers and coaches to encourage being still and quiet in poses such as shavasana, or corpse pose. Resting in shavasana or finding a sitting practice, allows the nervous and cardiovascular systems to do their jobs. A restored nervous or cardiovascular system will naturally increase performance on the court or playing field.

Role of Yoga in the prosperous and healthy India: We can find a strong correlation between health and a nation's economic performance. In fact, health is among the basic components of the value of life, the wealth of a nation may be measured by the health of its citizens. Since Yoga can be used to improve overall health and well-being, Yoga has an important role to play in the prosperous and healthy India. The greatest power that we can unleash to make India healthier, however, is not investment but innovation.

Today, India needs ideas to make good health go from national movement to reality. Yoga is that idea which will make it happen through its value system and practical positive approach. It is established beyond doubt that cleanliness can help build a healthy and prosperous India. Thus, we must maintain cleanliness in public places like we do in our homes. Yoga promotes cleanliness

(Shaucha) and thus can help in the prosperous and healthy India. A healthy mind in a healthy body is a self-evidence truth. Yoga helps in achieving this through its different practices. Thus Yoga has a promising role in the prosperous and healthy India.

Conclusions: Yoga is said to be a complete science, as it fulfills the WHO's definition of health by addressing the individual at all physical, psychological, and social levels. Stress affects individuals of all age groups, and people of all sectors and occupations, including doctors. Though many modalities of treatments are available for reducing stress, people are trying to find an alternative to be relieved from stress without medications. Yogic science, having persisted for 5000 years and known to be spiritual for many years, is now being proven through scientific studies to have significant benefits on health.

Yogic science includes yogasanas (postures), pranayama (breathing practices), dhyana (meditation), and relaxation techniques which benefit human beings at every level. Through research studies, yoga has proven effective in many physical and psychological ailments. Apart from the management of diseased condition, it also has been proven to improve the positive health and quality of life of the healthy. Most importantly, yoga is also a strong practice for the prevention against painful ailments.

Yoga training offers a number of physical, emotional, and psychological benefits. A intelligent yoga practice, when coupled with sport specific training, will increase mental concentration and significantly reduce levels of stress and anxiety. Yoga can also help the athlete feel better about their body by increasing strength, flexibility, and body awareness. As an athlete becomes more in touch with their internal self, the doors of possibility begin to open rapidly. Whether an athlete decides to compete competitively or recreationally, yoga is the tool that is going to get them to the next level safely and soundly.

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Effect Of Indian Traditional Training And Modern Training Methods On Vital Capacity And Breath Holding Of Wrestlers

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Abstract

The main purpose of the study was to find out effect of Indian traditional training and Modern training methods on vital capacity and breath holding time of wrestlers. The allied objectives of the study were: To compare the effect of Indian traditional training and modern training methods of wrestling on vital capacity and breath holding time. The study would be highlighting the differences which exist in vital capacity and breath holding time among the wrestlers practicing different training program and providing knowledge to the coaches and players regarding the need of development of vital capacity and breath holding time of wrestlers, may be helpful for the diagnosis of training program. The effectiveness of training program in developing vital capacity and breath holding time

Key Words: Indian traditional training, Modern training, vital capacity and breath holding time.

Introduction

Sport is a physical and physiological activity, besides physical, physiological and technical aspects. Man's interest in sports is found in all societies of the world. Most of the nations share a common interest in sports competition, especially at certain times during the Olympic Games, where people from all nations focus their attention on that drama of competition. It is important to know about the role of reaction time, movement time, emotional phenomena like competitive anxiety and some personality traits like extroversion and neurotic-ism of the players during training as well as competitive situations. It is not the mere participation or practice that brings out victory to an individual. Therefore, sports life is affected by various factors, like Sports Training, Coaches, trainers are doing their best to improve the performance of the players of their country. Sportsmen personality is represented by his sport performance. Physical fitness, physiological, techniques and tactics alone are not enough. The pedagogical aspect of sports training comes into sharp systematic training in almost all the sports. Some examples include physical fitness and physiological fit, An athlete needs to be aware of the various types of physical fitness and physiological to develop an effective training program that focuses on weak or important areas.

Purpose of the Study: The main purpose of the study was to find out effect of Indian traditional training and modern training methods on vital capacity and breath holding time of wrestlers.

Hypothesis: 1) it was hypothesized that, there will be significant difference in vital capacity and breath holding time of Wrestlers practicing Indian Traditional training and Modern Training Methods.

2) It was further hypothesized that, Modern Training Method will be significantly better than Indian Traditional Training Method on vital capacity and breath holding time.

Methodology: For the study one hundred fifty wrestlers were selected on random basis for the present study. Those who have participated in Amravati division competition all the selected subjects were ranged from 16 to 20 years of age. The subjects were converted into composite score and divided into three homogeneous groups respectively. Indian Traditional Training was employed to one group(50); Modern Training was employed to second group(50). The third group was not undergone any training and was treated as the control group(50). The duration of the experimental period was of 3 months. In the pre-test and post test, was conducted for Wet Spirometer was used to measure vital capacity and Vital capacity was recorded in Milliliters. To measure the maximum breath holding time of the subjects and higher of the two breath holding times was recorded in seconds as the score.

Analysis of Data: The data obtained from the Experimental groups before and after the experimental period were statistically carried out with descriptive statistics, paired sample t-test, Analysis of Covariance (One-Way ANCOVA), and the Least Significant Difference (LSD) Post hoc test employed. The level of confidence was fixed at .05 level for all the cases. The data were compiled and analyzed using the Statistical Package for the Social Science (SPSS) for windows computer software (Version 16.0).

TABLE – 1

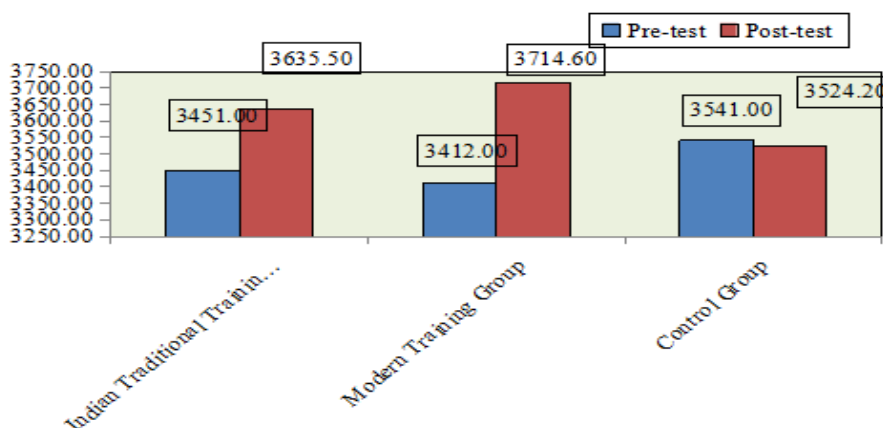
The Summary Of Mean And Paired Sample ‘T’ Test For The Pre And Post Tests On Vital Capacity Of Indian Traditional Training Group, Modern Training Group And Control Group

Group	Test	Mean	SD	SE	MD	‘t’-ratio
I.T.T.G.	Pre	3451.000	739.035	142.754	184.500	6.194*
	Post	3635.500	687.574			
M.T.G.	Pre	3412.000	716.821	132.362	302.600	5.201*
	Post	3714.600	601.796			
C.G.	Pre	3541.000	738.841	147.242	16.800	1.872@
	Post	3524.200	733.569			

*Significant at .05 level.

@Not Significant at .05 level.

Table- 1 reveals that the ‘t’ ratio values 6.194 and 5.201 of vital capacity for Indian Traditional Training Group and Modern Training Group respectively are found to be significant at 0.05 level of significance. The table also shows that there is no significant improvement in case of control group as the calculated ‘t’ ratio value 1.872 is not found to be significant at 0.05 level of significance.



GRAPH NO-1

Graphical Representation Of Vital Capacity Of Mean Difference `Between Pre And Post Test Of Indian Traditional Training Group, Modern Training Group And Control Group

The Analysis of covariance (ANCOVA) on vital capacity of Indian Traditional Training Group, Modern Training Group and Control Group, have been carried out and presented in Table -1.

TABLE – 2

The Summary Of Mean And Paired Sample ‘T’ Test For The Pre And Post Tests On Breath Holding Time Of Indian Traditional Training Group, Modern Training Group And Control Group

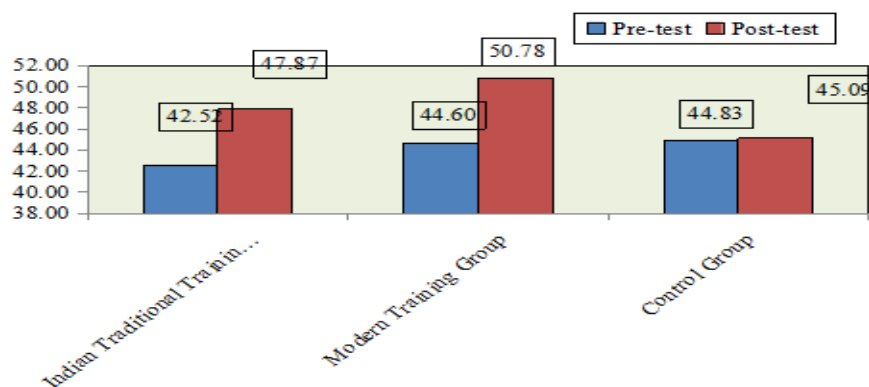
Group	Test	Mean	SD	SE	MD	‘t’-ratio
I.T.T.G.	Pre	42.523	11.394	2.234	5.344	9.938*
	Post	47.867	10.938			
M.T.G.	Pre	44.597	2.951	0.733	6.184	11.482*
	Post	50.781	4.262			
C.G.	Pre	44.835	2.029	0.433	0.253	1.715@

	Post	45.088	2.297			
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*Significant at .05 level.

@Not Significant at .05 level.

Table- 2 reveals that the ‘t’ ratio values 9.938 and 11.482 of breath holding time for Indian Traditional Training Group and Modern Training Group respectively are found to be significant at 0.05 level of significance. The table also shows that there is no significant improvement in case of control group as the calculated ‘t’ ratio value 1.715 is not found to be significant at 0.05 level of significance.



GRAPH NO-2

Graphical Representation Of Breath Holding Time Of Mean Difference Between Pre And Post Test Of Indian Traditional Training Group, Modern Training Group And Control Group
The Analysis of co-variance (ANCOVA) on breath holding time of Indian Traditional Training Group, Modern Training Group and Control Group, have been carried out and presented in Table -2

Results :

Vital Capacity: This analysis shows that there was a positive improvement of physiological variable of Vital Capacity among the adjusted means of Control Group and Modern Training Group, Control Group and Indian Traditional Training Group, Modern Training Group and Indian Traditional Training Group. However, the Modern training group improvement in vital capacity was significantly higher for than Indian traditional training group.

Breath Holding Time: It was evident from the result shows that there is significant increase in breath holding time due to influence of Indian Traditional Training and Modern Training Methods when compare to the control group.

It reveals that the mean difference of the experimental groups namely Indian Traditional Training and Modern Training Methods has mean difference on breath holding time. However the modern training group has increased in the breath holding time than the Indian Traditional Training group.

Conclusion :

1. Comparison of vital capacity between pre and post test of Indian Traditional Training Group and Modern Training Group showed significant difference.
2. It was concluded that Indian Traditional Training Group and Modern Training Group significantly improved vital capacity of the wrestlers compared to control group and comparison between the experimental groups concluded that modern training group was better than Indian Traditional Training Group.
3. Comparison of breath holding time between pre and post test of Indian Traditional Training Group and Modern Training Group showed significant difference.

4. It was concluded that Indian Traditional Training Group and Modern Training Group significantly improved breath holding time of the wrestlers compared to control group and comparison between the experimental groups concluded that modern training group was better than Indian Traditional Training Group.

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Posture And Health

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Science has shown that good posture allows the body to function and perform optimally. More precisely, a study published in the American Journal of Pain Management (1994,4:36-39) revealed that posture affects and moderates every physiologic function from breathing to hormonal production. Spinal pain, headache, mood, blood pressure, pulse and lung capacity are among the functions most easily influenced by posture.

The World Health Organization defines health as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. Eating right, exercising, and sleeping well play an equal role in the prevention of infections and diseases. However, a good sense of self, a loving support network, and the potential for continued personal growth is also important to our overall wellbeing.

Many of us are not in control of the factors that cause us to become ill whether they be genetic, environmental, or something else entirely. There are many avenues we can take to improving our health, which include the use of traditional and modern medicines when we are ill.

However, most people cannot access or afford proper health care such as healthy sanitation and hygiene, which is necessary to prevent the spread of disease.

Moreover, a large proportion of the global population are disenfranchised because of poverty, geographic location, disability, or social stigma against those who are ill. In addition, sexual health continues to be a highly contentious issue around the world particularly with concern to the method of transmission of some of the world's deadliest diseases such as HIV/AIDS. Furthermore, one of the most.

Pressing issues in terms of health and wellness is the education, prevention and treatment of HIV/AIDS. The Millennium Development Goals seek to address this issue specifically in Goal 5: Improve maternal health and Goal 6: Combat HIV/AIDS, Malaria and other diseases.

While people of all ages should maintain good health, young people face special challenges as they transition from Childhood to adulthood. With the onset of puberty, the body changes to accommodate physical and emotional growth, but it also marks one of the most vulnerable stages in a young person's life. During this time, females tend to struggle more than males with body image and self-esteem issues which can lead to dangerous eating disorders and even death. On the other hand substance abuse, depression, self-mutilation and suicide have higher incident rates in males than females and if left untreated these health concerns may lead to permanent mental and physical damage.

Given that everyone's body and medical history is different, it is important to be aware of what makes you sick and even what makes you feel better on a personal level.

There is extensive international research documenting the ways in which the health status of individuals or groups is significantly determined by social and economic conditions as well as by therapeutic care or personal health behaviours. Social determinants of health (SDOH) are social and economic conditions that influence the health of individuals and communities. A wealth of research on SDOH provides evidence that: health follows a social gradient; stress damages health; the health impacts of early development and education lasts a lifetime; poverty and social exclusion cost lives; stress in the workplace increases the risk of disease; job security improves health; unemployment causes illness and premature death; social supports and supportive networks improve health; alcohol, drug and tobacco use are influenced by the social setting; healthy food is a political issue; and healthy transport means walking and cycling and good public transport. Other basic determinants of health, such as genetics, interact with SDOH to present a broad overview of why some individuals and communities are healthy while others are not.

In 2002, Canadian researchers, policy-makers and community representatives gathered together at a conference entitled "The Social Determinants of Health Across the Life-Span" to comment upon and discuss the current state and health implications of key SDOH in Canada. The conference produced "The Toronto Charter for a Healthy Canada" which identified ten key SDOH for Canadians as recognized in Health Canada and World Health Organization (WHO) documents. The

ten determinants, in alphabetical order, include: early life; education; employment and working conditions; food security; health services; housing; income and income distribution; social in/exclusion; the social safety net (including contributions from the voluntary and community sector); and unemployment and job security. SDOH are directly related to the ways in which resources are organized and distributed among the members of a society.

Sustainable health and wellness is not only part of our survival but it is also a continuously rewarding way to live out our entire lives.

When you were a child, you may have been told to "Stand up straight!" or "Don't slouch!" from your parents and teachers. I remember when I was younger, my mother would poke my back out of nowhere to remind me to stand up straight. I hated this as a teen and was determined to rebel for no reason other than to be stubborn and go against what I was told. My purposeful slouching eventually turned into a habit and carried with me into adulthood. Now that I'm grown up, I understand why my mother was so insistent. My poor posture now makes me feel:

* Pain in my back and shoulders.

* I am breathing shallowly.

* I appeared to lack self confidence.' » Energy was not flowing efficiently" throughout my body. I was often tired.

* It made me look and feel weak.

I have spent much time correcting the damage, and undeveloped muscles, from my rebellious teen years. Like any habit, breaking bad posture can be a challenge, but definitely doable with some attention and practice.

Many of us may like to improve our posture, but we often don't know how, or where to start.
Posture 101

Posture is defined as the carriage of the body. Good posture means carrying your body in a way that puts the least strain on muscles and ligaments. Poor posture can cause pain in the back and neck, and eventually causes injury. Improving your posture is a great way to improve your image while at the same time improving your health.

First, let's go over some of the things that contribute to poor posture. Most of them are fixable, and others (like pregnancy) eventually go away on their own.

* Poor habits - sitting and standing incorrectly (this is me)

* Weakened muscles

* Obesity - The extra weight strains the muscles

* Pregnancy

* Improper shoes - high heeled shoes are the worst

* Reduced muscle and joint flexibility

Benefits of Good Posture

Good posture is beneficial to your health in several ways. Standing and sitting correctly prevents strain and overuse, and helps prevent back, neck, and muscle pain. Good posture also helps the muscles work more efficiently, which helps prevent fatigue. Most importantly, I have found that I can breathe deeply from my belly (my core). The energy I get from a deep breath is what keeps me going during the day.

The physical benefits are many, but there are other side benefits to good posture. When you stand properly, the body looks aligned, looks slimmer, and generally looks better. Good posture can also help you feel more confident - because you look and feel better, your confidence increases."

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The Effect of Pranayama Training Programme on Respiration Rate of Taekwondo Player

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Abstract:-

To evaluate the effectiveness of 06 weeks Pranayama Training Programme on Respiration Rate of Taekwondo Player. pre-test and post- test randomized group design were undertaken for the present study which consist of an Experimental group and control group. Equal number of subjects (N=25) were assigned randomly to both groups. The experimental group was exposed to 06 weeks Pranayama Training Programme, whereas, no treatment was given to control group. For the purpose of the present research work a total of 50 Taekwondo Players were randomly selected for the present research work. The level of significance to test the obtained t-ratio was fixed at 0.05 level of confidence, which was considered to be appropriate in review of the fact that highly sophisticated instruments and devices were not used for more stringent level of significance.

By Using 't'-ratio the finding of the study showed that there was a significant difference in the pre-test and post-test scores of experimental group in Respiration Rate as a result of 06 weeks Pranayama training practices. Whereas the finding of the study reveals that there is significant difference in Respiration Rate in the pre-test and post-test of experimental group and No significant difference in control Group. As a result of 06 Weeks Pranayama training.

Keyword :- Pranayama Programme, Taekwondo, Respiration Rate.

Introduction:-

Taekwondo is one of the most systematic and scientific Korean traditional martial arts, that teaches more than physical fighting skills. It is a discipline that shows ways of enhancing our spirit and life through training our body and mind. Today, it has become a global sport that has gained an international reputation, and stands among the official games in the Olympics.

First, Taekwondo is the right way of using Tae and Kwon 'fists and feet,' or all the parts of the body that are represented by fists and feet. Second, it is a way to control or calm down fights and keep the peace. This concept comes from the meaning of Tae Kwon 'to put fists under control' or 'to step on fists'. Thus Taekwondo means "the right way of using all parts of the body to stop fights and help to build a better and more peaceful world."

Olympic Taekwondo, short periods of **intense movement** are framed by incessant periods of **increased heart rate** followed by a brief period of rest. Characteristic Taekwondo **sparring matches** are comprised of rounds that last two minutes. During this time period of sparring, the heart rate can climb to the individual's maximum target heart rate. As such movement is necessary during any Olympic martial arts event, it is important that a contestant have a great deal of **endurance and strength**, Accuracy and Efficiency before entering the competition.

Yoga, an ancient Indian science, aims to bring about functional harmony between body and mind through three main practices asanas, pranayama and meditation. Pranayama means control of 'prana'. "Prana" in Indian philosophy, refers to all forms of energy in the The essence of the pranayama practice is slow and deep breathing which is economical as it reduces dead space ventilation. It also refreshes air throughout the lungs, in contrast with shallow breathing that refreshes air only at the base of the lungs. Thus, a yoga practitioner, through pranayama, can at some stage control other physiological functions and finally control manifestations of prana even outside the body.

Statement of the problem:-

The Effect of Pranayama Training Programme on Respiration Rate of Taekwondo Player.

Purpose of the study:-

1. The purpose of the study is to improve of Respiration Rate strength.
2. The purpose of the study is to find out the level of Respiration Rate strength.
3. To study the importance of Respiration Rate strength.
4. To study for Accuracy and Efficiency.

Significance of the study:-

1. The result of the present study would be helpful to the Physical Education Teachers and coaches and other professionals, in order to understand the importance of Accuracy and Efficiency.
2. The study will help to know the significance of Respiration Rate strength of Accuracy and Efficiency with the performance.
3. The study may provide an opportunity to assess the Accuracy and Efficiency strength of Taekwondo players.

Hypothesis:- On the basis of literature reviewed, available findings, experts opinion and scholar’s own understanding of the problem it was hypothesized that there were significant effect of Pranayama training program on Respiration Rate Strength of Taekwondo Player.

Sub-Hypotheses:- There were significant difference in Respiration Rate of taekwondo Players.

Selection of the samples:- Fifty Taekwondo players was randomly selected as subjects for the purpose of this study all the subjects participated in the regular taekwondo activities in the taekwondo Interuniversity Tournament. The age of the subjects ranged between 18 to 25 years.

Criterion measure:- Respiration Rate

Data Collection:-

Researcher first Took the Test of Respiration Rate for [Improving the Accuracy and Efficiency of Respiratory Rate](#) then Gave the 6 Weeks Pranayama Training to Intercollegiate Taekwondo players then again took the Test of Respiration Rate for [Improving the Accuracy and Efficiency of Respiratory Rate](#).

Data analysis :-

Table No :- 1

Comparison Between the mean of pre-test and Post Test of Control Group on the basis of ‘t’-ratio for Respiration Rate

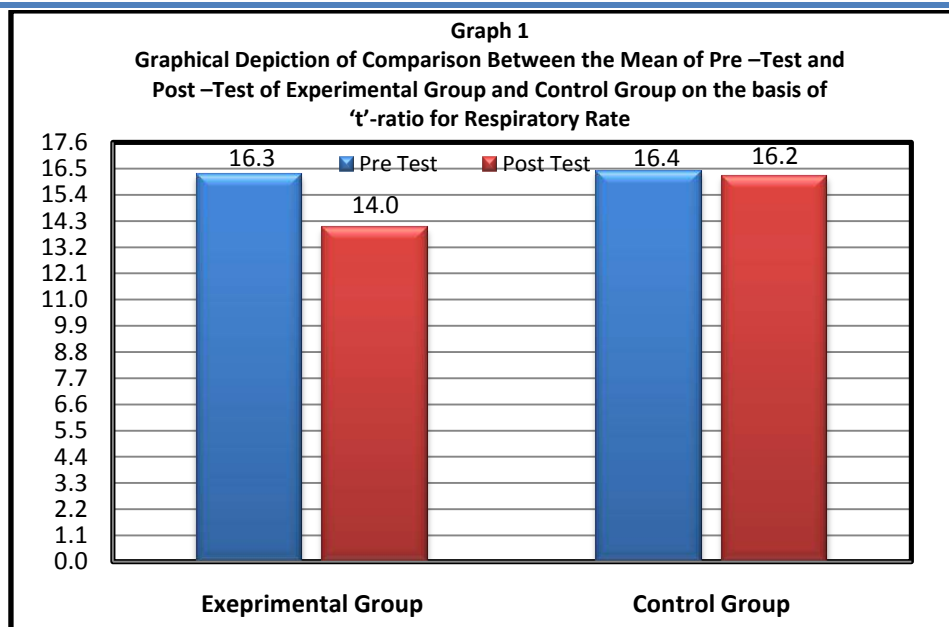
Item	M1	M2	MD	‘t’-Ration	Required ‘t’-Ration
Respiration Rate Control Group	16.04	16.02	0.02	1.000	1.671
Respiration Rate Experimental Group	16.26	14.0400	2.22	11.299*	1.671

M_1 = Mean of Pre-Test, M_2 = Mean of Post Test

Discussion :-

Table No.1 indicates that the mean for Respirations rate of pre- test and post- test of control group 16.04 and 16.02 respectively. Similarly, examination of the same table reveals that there is no significant difference in the mean of Respirations rate of pre- test and post- test scores of control group as the obtained ‘t’-ratio value 1.000 is much less than the required ‘t’-ratio value 1.671 at 0.05 level of confidence.

The mean for Respirations rate of pre- test and post- test of Experimental group 16.26 and 14.0400 respectively. Similarly, examination of the same table reveals that there is significant difference in the mean of Respirations rate of pre- test and post- test scores of Experimental group as the obtained ‘t’-ratio value 11.299 is much more than the required ‘t’-ratio value 1.671 at 0.05 level of confidence.



Conclusion:

- 1) In Respirations rate no significant difference was found between Pre-test and Post- test of Control group.
- 2) Significant difference was found in the Respirations rate of experimental group as a result of practices of different Pranayama Training for 06 weeks as the Post-test score were found to be better than that of Pre-test Scores.

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Factors Influencing Ball Throwing Velocity in Young Female Handball Players

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Introduction

Throwing is considered as one of the most important technical skills in competitive team handball as it is a major determinant of all actions taken by the players. For a proper execution of a throw, the achievement of maximal voluntary velocity is necessary, depending on the sort of the throw, whilst accuracy is always a demand [1, 2]. Those skills should be developed by all players, regardless of the team's role distribution and playing post. Gender and age [2-5], muscular strength and neuromuscular coordination [6, 7], ball weight and ball size [8], are reported as factors that influence ball velocity. However, there is still a discussion concerning the influence of anthropometric characteristics [6, 9]. Bayios [10] reported ball velocity to be positively correlated to body size, upper and lower extremities' length. Skoufas et al. [11] reported significant correlations between ball velocity and hand spread probably because the latter contribute to the safe holding of the ball [8, 11]. Sakurai & Miyashita [4] studied the development of throwing skill in boys and girls aged 3 to 9 years with respect to upper limb movement. They report sex-related differences in throwing ability between the ages of five and seven years. After the age of 7 years, improvement in performance of the females depended on kinematic characteristics of the upper limbs and muscular power, while in males the same factors needed to be combined with practice. Pauwels [3], investigated the relation of several anthropometric measures and physical skills of 12 to 19 years old non-experienced boys, with ball velocity. It was found that below the age of 16, strength is the most significant factor determining ball velocity, with body size also being a key factor.

Anthropometric Characteristics

Body height and arm span are positively correlated to the throwing ball velocity. It is generally accepted that body height is positively affecting all body dimensions [2]. This positive correlation of the height to the ball velocity is in accordance with previous studies involving male and female athletes [2, 10], although there are also conflicting results [6, 9, 11]. A Strong positive correlation between ball velocity and arm span is reported by Skoufas et al. [11]. Pauwels [3] report that there is a positive correlation between ball velocity and segmental body length measurements in boys aged 14-16 years, while similar correlations were not evident in subjects aged 16-19 years. According to studies, when an athlete has increased segmental body length measurements, he/she can throw the ball with higher velocity. The combination of a longer humerus and a higher angular velocity results in higher linear ball velocity [5, 13, 14]. Mechanically, an increase of a rotation radius should cause a proportional increase of the force applied to the ball, and consequently an increase of the ball's linear velocity. During an overarm throw, the movement's rotation axis is consisted from the arm's longitudinal axis [15]. Reasonably, an overall longer limb has a positive effect on ball release velocity. Opposing to these results, the study of Jöris et al. [6] did not find any correlation between ball velocity and segmental body lengths. They claim that athletes with short segmental body measurements are capable to reach high throwing performance levels as a result of a more efficient energy transition.

Physical Fitness Characteristics

Running speed and explosive power are important prerequisite factors in competitive handball [19, 20]. The power of the lower extremity and the maximal running speed, as expressed by standing long jump and 30-meter speed, respectively, had a significant correlation with ball throwing velocity. The former association has been also reported in high level handball male and female players [20]. Our data are also in accordance with a study of volleyball players which reports a significant correlation between vertical jump and ball velocity during spiking [17] and with another study which reported a correlation between squat jump performance and medicine ball throwing velocity [21]. Most researchers agree that explosive lower limb power may be highly associated with throwing ball velocity [6, 22-24]. This is supported by the fact that the main factor affecting ball velocity is the effective energy transition from ground to the lower extremities and through the kinematic chain to

the throwing upper limb [6, 23]. The correlation of running speed with ball throwing velocity indicates that as long as the ability of attaining maximal speed increases, the ball throwing velocity also increases. In the literature there are no reports to aid to a comparison of our results to relevant studies. This correlation may be attributed to the type of the muscle fibers [25]. In high velocity movements like throwing, fast motor units are preferentially recruited

Players who trained more, managed to achieve higher ball velocities, and at the same time they probably improved their muscular coordination, which was directed to their upper extremities reflecting in improved throwing performance [3, 37]. In water polo it was also reported, that senior female player with 9.8 years of experience demonstrated a significantly higher throwing velocity than junior female elite players with 6.4 years of experience [16]. Freeston and colleagues [38], do not report any training experience effects on ball velocity between elite senior females and elite under-19 years females cricket players. However, he suggested that training experience as well as training volume played a potential role, because they seemed to affect peak and mean maximal throwing velocity.

Conclusion

he aim of the present study was the examination of the relations between anthropometric variables and physical abilities and ball velocity in young female handball players. Fitness, as expressed through these specific tests, combined with training experience and anthropometric characteristics such as hand spread and arm span, seem to be the main factor correlating with ball velocity in 14-year old female handball players. Trainers should take into account these characteristics during handball talent selection, because they tend to be a requirement for future high level performance.

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Effect of 8 Weeks Dynamic Surya Namaskar Training Programme on Determined Awareness in Archers

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Abstract:

Sun salutation (Surya Namaskar) is a comprehensive Yoga technique which incorporates physical activity, breath regulation, relaxation and awareness. Apart from improving physical stamina and endurance, Surya Namaskar is having influence an individual's perception and target oriented sports performance. Hence, with a view to realize, the present study is under taken to measure the performance of archers in a digit letter substitution task following the practice of Surya Namaskar. 64 female archers between the age group of 13 to 19 years, were screened. They were divided in to two equal groups, control & experimental, 32 in each. Subjects were assessed at the beginning (on the basis of pre- test mean scores and end of 56 days of intervention (post test) using a Digit Letter Substitution Task. The data were normally distributed and the baseline data across, the groups were not statistically different ($p > .05$). The pre-post data within each group was analyzed using a paired 't' test. There was a significant increase in number of letters substituted per digits in both SN ($p < .001$) as well as control groups ($p < .001$). The difference between the groups was not statistically significant ($p > .05$).

keywords: Dynamic Surya Namaskar, Archers, Awareness, DLST

Introduction:

Surya Namaskar is sun salutation. It is a popular sequence of yoga asana done with breath awareness. It is a complete *sadhna* or yoga practice in itself and includes asana, pranayama, mantra and meditation techniques. The concept of Sun Salutation comes from the ancient practice of revering the Sun which is considered the source of every creation on the planet and also symbolizes spiritual consciousness. Though the dynamic sequence of Surya Namaskar Yoga is not mentioned in the traditional hatha yoga scriptures and was included in the practice much later, it is a highly effective yoga practice to balance mental and physical energies with regulated breathing aiming at range of physical, mental and spiritual benefits. One may come across various Surya Namaskar's names and variations. Namaskar steps from an experienced yoga trainer. These findings support the use of Surya Namaskar as an effective physical activity recommended by the American College of Sports Medicine i.e., 50% to 80% VO_2 Max and 60% to 90% heart rate reserve as effective physical activity. Recently Bhavanani & Colleagues evaluated the differential physiological effects of 6 months training in the fast and slow versions. The results suggested that Surya namaskar has positive physiological benefits as evidenced by an improvement in pulmonary functions, respiratory pressures, hand grip strength and endurance, and resting cardiovascular parameters. It also demonstrated the differences between Surya namaskar when performed in a slow versus fast manner, concluding that the effects of fast version are similar to physical aerobic exercises, whereas the effects of slow version are similar to those of yoga training. Through practices of it gives vitality & strength. It also reduces the feeling of restlessness & anxiety. It also improves natural sleep. Nerve stability is also improved on account of neuromuscular stretch & stimulation. While the above two studies have looked at the cardio-respiratory changes and metabolic cost during Surya Namaskar in young adults, a single report evaluated its influence on children belonging to 8-14 years of age. The results showed that the Systolic Blood Pressure, Peak Expiratory Flow Rate and Forced Vital Capacity increased significantly and Respiratory Rate, Heart Rate and Diastolic Blood Pressure decreased significantly after the practice of Surya Namaskar.

Methodology:

The present study undertaken to evaluate the effect of 8 weeks Dynamic Surya Namaskar training programme on determined awareness in female Archers who are regular partakers in the concerned sports in H V P Mandal, Amravati, Maharashtra, India. 64 subjects were divided in to two equal groups: the Control Gr-A. and Experimental Gr-B, (Namaskar) 32 subjects in each group. Age ranged from 13-19 years. **Data extraction:** The total number of substitutions and wrong substitutions were scored. The net score was obtained by deducting wrong substitutions from the total substitutions attempted. The scoring was done by the investigator who was unaware of the names of the subjects to whom the data sheets belonged. This ensured masking of the data while doing the data

extraction. **Analysis:** Data were analyzed using descriptive as well as inferential statistics. The data were assessed for normality distribution using the Shapiro-Wiley test. The net scores recorded on Day 56th of Surya Namaskar training programme as well as the Control groups were compared with their respective Day 1st values using a paired 't' test. The differences across the groups were assessed using an independent samples 't' test. **Interventions:** Surya Namaskar has been a traditional Yoga based practice. The Sun has been revered as a deity and worshipped. Surya Namaskar is a salutation to this powerful celestial body, around which other planets revolve and take light and heat from it. It is believed that whoever worships Lord Surya is bound to have a dynamic personality, as he rejuvenates life and makes one feel young, agile, brilliant and healthy. **Source of subjects:** All subjects were selected from (Archery department) regular partakers in the sports in H V P Mandal, Amravati, Maharashtra, India **Design:** 64 students equally divided into 2 groups on the basis pre-test mean scores with 32 students each (Control group- A & Experimental group-B). Assessments were done at baseline (Day 1st) and after 56 days of their respective institutions. Experimental group underwent Surya Namaskar for 8 weeks training programme. Control group was given no treatments. **Variables:** This task involves visual scanning, mental flexibility, determined awareness and psychomotor speed of information processing. Digit substitution test has already been standardized for use in Indian population [Subjects were made to sit on the desk (two in a desk with a distance of two meters between them). They were given necessary instructions about the task : (**Digit-letter substitution task-DLST):** The DLST consisted of a worksheet which had 12 rows and 8 columns and randomly digits arranged in rows and columns. The participants were asked to substitute as many target digits as possible in the specified time of 90 seconds. They were instructed to substitute letter by their own choice either in a horizontal, vertical or randomized manner by selecting the particular digit. of substitutions and wrong substitutions are scored. The net score was obtained by deducting wrong substitutions from the total substitutions attempted **Control Group:** Subjects were not given any treatment for same duration of time. To start with Surya Namaskar which included: Loosening exercises, stretching exercises (forward, backward, sideward), Jogging followed by supine rest. **Results:** Two groups (control Gr-A & experimental Gr-B) assessed after 56 days of respective interventions using a digit letter substitution task showed significant improvements. The data were normally distributed and the baseline data across the groups were not statistically different ($p > .05$). The pre-post data within each group was analyzed using a paired 't' test. There was a significant increase in number of letters substituted per digits in both yoga ($p < .001$) as well as control groups ($p < .001$). The difference between the groups was assessed using an independent samples 't' test which was statistically not significant. The group mean values \pm Standard Deviations are given in Table 1. The same has been graphically represented in Figure 1. **Discussion:** 64 Archers equally divided into two groups (Surya Namaskar & Control) assessed using a task requiring attention span showed significant improvements after one month of practice of Surya Namaskar. Earlier studies have attempted to understand the physiological changes following Surya Namaskar. They have showed a positive change in energy cost and cardio respiratory performance in young adults. It was speculated that Surya
Suryanamaskar Training Programme for Experimental Group

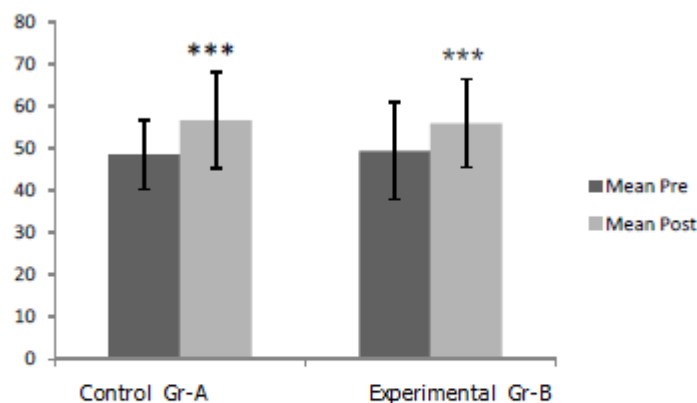
Name	Description	Duration
Starting Prayer	<ul style="list-style-type: none"> Hiranmayenapatrena Satyasyapihitam mukham Tatvam Pushanapavrunu satyadharmaya Drushtayet Like a lid to a vessel, Oh sun, your golden orb covers the entrance to the truth. Kindly open the entrance, to lead me to the truth 	30 Sec.
Loosening exercise	Finger movement, wrist rotation, shoulder rotation, neck rotation, toe movements, ankle movement & rotation, knee movement, butterfly,	10 mins.
Suryanamaskara	Twelve Sun salutations. Step 1: Hasta uttanasan (raised arms pose) Step 2: Padhahastasan (standing forward bend pose) Step 3: Ekapadaprasaranasana (equestrian pose) Step 4: Dwipadaprasaranasana (steep parallel pose) Step 5: Sasankasana (moon pose) Step 6: Sashtanga Namaskar (Salute with 8 limbs pose) Step 8: Parvatasan (mountain pose) Step 9: Sasankasana (moon pose) Step 10: Ekapadaprasaranasana (equestrian pose) Step 11: Padhastasan (standing forward bend pose) Step 12: Hasta uttanasan (raised arms pose)	12 mins. Sunday Rest
DRT	Deep Relaxation Technique	10 mins.
Closing	Om Shantih Shantih Shantih	10 sec.

Post Values Compared with the Respective Pre values of Control and Experiment Groups

	Day 1 [Mean ± SD]	Day 30 [Mean ± SD]	Percentage Change
Control Gr-A	48.59 ± 8.24	56.71*** ± 11.34	16.7
Surya namaskar Gr-B	49.47 ± 11.47	56*** ± 10.49	13.2

*** P<.001, post values compared with the respective pre values using paired 't' test

Table 1: Net scores recorded on Day 1 and Day 56 in both Surya Namaskar and Control groups. Values are group mean ± SD.



*** P<.001, post values compared with the respective pre values using paired 't' test.

Figure 1: Group Mean ± SD of Net scores recorded in both Surya namaskar and physical exercise group on Day 1 (pre) and Day 30 (post).

It is clear from earlier reports that Surya Namaskar can be used as a potential equivalent to aerobic exercise with respect to cardio-respiratory endurance. However, its other applications are being explored recently. Improving scholastic performance in school children has been identified as a major application of Surya Namaskar as earlier reports on physical exercise have shown its beneficial effects on improving the executive functions in children.

The results of the present study are in line with the earlier report that physical activity influences awareness tasks. Improvement following the practice of Surya Namaskar can be attributed to physical activity interspersed with regulated breathing and relaxation as the influence of relaxation on awareness is well documented. The changes seen in the control group are similar to that of the experimental group. The group which practised Surya Namaskar had 16.7% improvement as compared to 13.2% in control group. However, the difference between the groups was statistically not significant. The marginal better performance in the Namaskar group can be attributed to the aspect of Surya Namaskar i.e. Physical activity interspersed and slow breathing and relaxation as mentioned earlier.

Visalakshi N. & Thenmozhi S. (2011) evaluated the response inhibition and the process of brains recognition capability participants were unmediated at the time of testing period expensive functions and attention. The test consist of letter cancellation, digit vigilance trials tasks and control of oral word association and the test of animal name, also consist of go and go test, stop signal test, N back test, verbal and visual test. The statistical analysis concludes that there was important difference in the expensive function between the children with LD, children with LD- ADHD and children without LD and ADHD also there is no significant difference in the expensive function between children with LD and children with LD-ADHD.

Ghanshyam Singh Thakur, et al., (2011) examined the self-control training on thirty normal subjects of both genders (mean age 25.83±3.41 years) were taken in a self-control training group and were tested for three types of Nostril breathing practices and Breath Awareness (BA) effects. Namely verbal memory presentation of numerical data such as Digit Span Forward (DSF) and Digit Span Backward (DSB) as well as associated knowledge memory functions by Wechsler Memory Scale. The interferences included Right Nostril Breathing (RNB), Left Nostril Breathing (LNB). Alternate Nostril Breathing (ANB) and Breath Awareness are taken for the duration of 30 minutes daily. The repetitive measure ANOVA analysis shown a significant increase in both DSF and DSB memory performance due to RNB at P

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Role of Nutrition & Dietetics

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Introduction

Sport Performance of Food

It is common knowledge that poor diet is a decisive factor in many conditions and diseases, including obesity, certain types of cancer and heart disease. The link between good health and good nutrition has been well established, and interest in nutrition and its impact on sporting performance is now a science in itself. Whether you are a competing athlete, a weekend sports player or a dedicated daily exerciser, the cornerstone to improved performance is a well balanced diet.

Daily requirements

The basic training diet should:

- Provide adequate energy and nutrients to meet the demands of training and exercise.
- Include a wide variety of foods like wholegrain breads and cereals, vegetables (particularly leafy green varieties), fruit, lean meat and low fat dairy products.]
- Enable the athlete to achieve optimal body weight and body fat levels for performance.
- Promote a quick and full recovery during exercise.
- Provide adequate fluids to ensure maximum hydration.
- Consider both the short and long term health of the individual.

An athlete's diet should be similar to that which is recommended to the general population. Energy intake should be divided into:

- More than 55 per cent from carbohydrates
- About 12 to 15 per cent from protein
- Less than 30 per cent from fat.

Athletes who exercise strenuously for more than 60 to 90 minutes daily may benefit from increasing the amount of energy they derive from carbohydrates to 65 to 70 per cent of energy intake. The World Health Organisation states that athletes can comfortably consume up to 35 per cent of energy from fat without compromising performance. Some sports nutritionists have recently suggested that extra fat in an athlete's diet may improve performance for endurance events - this is a new area of thought and is currently not widely recommended or practiced.

Definition

Nutrition can help enhance athletic performance. An active lifestyle and exercise routine, along with eating well, is the best way to stay healthy.

Eating a good diet with enough fluids can help provide the energy you need to finish a race, or just enjoy a casual sport or activity. You are more likely to be tired and perform poorly during sports when you do not get enough:

- Calories
- Carbohydrates
- Fluids
- Iron, vitamins, and other minerals
- Protein

Carbohydrates

Foods rich in carbohydrate, particularly unrefined carbohydrates like wholegrain breads and cereals, should form the basis of the diet. More refined carbohydrate foods - such as white bread, jams and lollies - are useful to boost the total intake of carbohydrate. During digestion, all carbohydrates are broken down into a simple sugar, called glucose. Glucose is the body's primary energy source and is delivered to every cell via the blood. Excess glucose is converted into a substance called glycogen and stored in the liver and muscle tissue. Once glycogen stores are full, glucose is stored as fat, however, this storage process requires a lot of energy.

Eating during exercise

If exercise lasts longer than 60 minutes, it might be a good idea to eat some source of carbohydrate during exercise to top up blood glucose levels and delay fatigue. Low fat and low fibre food choices of a high glycaemic index, such as lollies (without chocolate) and sandwiches made with white bread, are ideal in these situations. Sports drinks and very diluted cordial or fruit juice offer the benefit of delivering both carbohydrate and fluid to the body.

Eating after exercise

To top up glycogen stores after exercise, the best foods to eat are carbohydrates with a moderate to high glycaemic index. This is best done in the first half hour or so after exercise. This should then be followed by foods high in carbohydrate, with a low glycaemic index. Exercise should be avoided during recovery.

Protein

Protein is an important part of a training diet. It plays a key role in post-exercise recovery and repair. Protein needs are generally met by following a high carbohydrate diet, because many foods - especially cereal-based foods - are a combination of carbohydrate and protein.

The amount of protein recommended for sporting people is only slightly higher than that recommended for the general public. For example:

- General public and active people - the daily recommended amount of protein is 0.75gm per kg of body weight (a 60kg person should eat around 45gm of protein daily).
- Sports people involved in non-endurance events - who exercise daily for less than 60 minutes: daily protein intake should be between 0.75 to 1.0gm of protein per kg of body weight per day.
- Sports people involved in endurance events and strength events - who exercise for longer periods (more than one hour) or who are involved in strength exercise, such as weight lifting, should consume about 1.24 to 1.7gm of protein per kg of body mass.

Vitamin supplements

A well planned and nutritionally adequate diet should meet an athlete's entire vitamin and mineral needs. Taking vitamin or mineral supplements can only be of benefit if a person's diet is inadequate, or where a deficiency has been diagnosed, such as in the case of iron or calcium. There is no evidence to suggest that mega-doses of vitamins can improve sporting performance. The indiscriminate use of vitamins and mineral supplements is potentially dangerous and they should not be taken without the advice of a qualified health professional. Dietary imbalances should be rectified by analyzing and altering the diet, rather than by using a supplement or pill.

Water

Heavy sweating depletes the body of water. Dehydration can impair athletic performance and, in extreme cases, can lead to collapse and even death. Drinking plenty of fluids before, during and after exercise is very important. The thirst mechanism should not be relied upon as a reliable indication to drink.

Athletes Have Special Needs!

- 1] Require More Nutrients
- 2] Increase in Protein
- 3] Increase in Carbohydrates
- 4] Increase in Vitamins and Minerals

Benefits of Proper Nutrition

- 1] Decreased time of recovery
- 2] Increase energy
- 3] Decrease loss of muscle tissue in-season
- 4] Increased stamina
- 5] Decreased percent body fat
- 6] Injury prevention
- 7] Improved health
- 8] Improved Performance

Total Caloric Ratio Need

- 1] 15% Fat
- 2] 30% Protein
- 3] 55% Carbohydrate

Protein : Specific Nutritional Needs

Individual protein needs are based on your type of sport-activity & activity & intensity.

Typically, protein requirements range 1.5-2.5 g/kg/of lean body mass.

Protein needs are calculated & based on your LEAN BODY MASS!

Things to remember

- Good nutrition can enhance sporting performance.
- Carbohydrate should form the basis of the diet.

- A diet high in protein isn't generally needed or recommended, since it can hinder performance, impair kidney function and compromise bone integrity.
- Athletes can increase their stores of glycogen by regularly eating high carbohydrate foods

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Role of Yoga Education for School Level Player

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Introduction

This saying very aptly reflects the importance of school player level in our lives. Upbringing of school level Player therefore has to be very disciplined and proper to make them good human being that they prove to be productive for the society. If a plant is rooted firmly to the ground it will branch out into a tree that gives shelter to many living beings. Similarly if a child is brought up with discipline, culture and values s/he will grow up into a good, mentally, physically, socially and healthy human being. In modern society with increase in stress, violence, disasters, yoga comes out as the best remedy and tool to discipline one's life. Yoga teaches the way of life in all aspects like, eating, habits, cleanliness, self management etc. In a student life, it is very important that school level Player should develop good habits.

Role of Yoga in good food habits

According to Yoga, food are of following three types -

Satvik, Rajsik and Tamsik.

(i) **Satvik:** Satvik food is positive, non-irritant, pure, agreeable, nourishing and easily digestible. It promotes purity of mind and inner strength and is conducive to higher thinking and intelligence and keeps body healthy and mind at peace.

(ii) **Rajsik:** Rajsik food is negative and irritant. It comprises of heavy proteins, fats that are difficult to digest and assimilate. This type of food excites emotions, causes disease, obesity and restricts the soul to material achievements.

(iii) **Tamsik :** Tamsik food is devitalising and stale. It comprises mostly of processed and tinned foods. Food, if reheated several times loses its qualities and harms the body systems. Yoga prescribes a balanced diet that comprises of pure, light and nutritious food. It should have cereals and pulses like - wheat, moong, green leafy vegetables cooked in mustard or groundnut oil. Milk and dairy products like curd, mattha (butter milk), paneer should also be included in diet. More focus should be laid on consuming coloured vegetables and fruits which are good source of vitamins e.g. brinjal, apples, citrus fruits, banana etc.

School level Player can also have dry fruits like almonds and walnuts. Spices should be avoided as they irritate the system and cause anger and anxiety. Tea and coffee are acidic and their consumption should be restricted to minimum. Children should refrain from eating junk food like pizzas, burgers, noodles, cold drinks, confectionary items as these are harmful for the system as well as for teeth, bones etc. These foods are made up of refined items, which if used excessively, results in obesity and diabetes later in life. The child gradually loses interest in positive activities and becomes irritable. "A healthy body houses a healthy mind". So one has to be physically fit to compete and excel in life.

Role of Physical Exercises

It is important for school level Player going to school to involve in some kind of physical activity, so that they can grow physically. Certain yogic asanas can be very good for children. Pranayam purifies the system by supplying fresh air and oxygen. Anulom - Viloma helps in strengthening memory and also improves eyesight, tadasan helps in increase of height, dhanurasan helps in general fitness and surya namaskar promotes overall well being of the body and mind. If started from young age, Yogasan can help school level Player to stay fit and keep away from many diseases like- blood pressure, diabetes, spondylitis in the future when they grow up.

Role of Meditation

To keep the mind free from stress and enhance connection, meditation can prove to be very beneficial for school level players. It is not necessary for one to try very hard for hours. Just a few minutes devoted daily by chanting or imaging something can help in meditation. Even looking at the night sky or watching birds quietly can also relieve stress from the mind, after which they feel fresh and full of positive thoughts and energy.

Role of Hygienic Practices

Personal hygiene is very important for a positive approach in life for everyone. Especially school level players getting up early in the morning, cleaning teeth, practicing good toilet habits, bathing daily, cutting nails, keeping hair neatly, going to school timely and neatly dressed, keeping ones belongings carefully, eating meals in time etc are all parts of good behaviour. If a school level player follows yogic principles, s/he can easily maintain disciplined lifestyle.

Impact of Yogic life style on the mind and soul of school level player

Yogic philosophy not only lays stress on physical wellbeing but also on mental and spiritual fitness. In recent times many things like violence, corruption, abuse words, etc. affected the children's mind negatively. The various films, television programmes, etc. depict a lot of violence which makes the child aggressive, impulsive and violent individual. By adopting Yoga in life children can control their minds, and keep themselves relaxed. Yoga gives inner power and strength to discard the evils of society and not get affected by negative things like- violence, corruption, drugs, abuse, anger, stress etc.

Conclusion

In modern life, it is very important to guide the school level player at a young age, to grow up mentally, physically, spiritually and healthy human beings. Yoga plays an important part to groom the personality of an individual by showing the way to a healthy and prosperous life. It is important to guide them for yogic asanas and meditation for their bright and successful future, which will brighten the future of the country. Despite the several advantages of yoga in all fields of life, one thing should be clearly kept in mind, that, yoga should be practiced under proper guidance of a trained yoga instructor. Overdoing or doing it in incorrectly manner can lead to lot of problems. The after effects are drastic and the instructor should know the need of the school level Player. Able guidance is a must for proper development of mind and body. All asanas are not meant for all people. Different age groups need to practice different asanas. Also the physical and mental status of the people has to be considered. Person suffering from any kind of mental or physical illness should be treated accordingly. At school level player, certain philosophy of yoga can not be taught like Samadhi etc. as they are not meant for young and tender minds. school level Players have to be dealt differently. They have to be taught morals like truth, dedication, love, sympathy, brotherhoodness etc.

A healthy mind and body will make a healthy individual and many such individuals make a healthy nation. School level Player are the future of the nation. So it is very important to take care of their upbringing, nutrition and development. Incorporating Yoga in daily life of school level Player can help to develop them into physically, mentally, emotionally and spiritually strong individuals.

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Dietetics and Physical Fitness Scenario in Indian Population

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Abstract:

Nutrition is a basic human need and a prerequisite to a healthy life. A proper diet is essential from the very early stages of life for proper growth, development and to remain active. Food consumption, which largely depends on production and distribution, determines the health and nutritional status of the population. Since people consume food, it is essential to advocate nutrition in terms of foods, rather than nutrients. Emphasis has, therefore, been shifted from a nutrient orientation to the food-based approach for attaining optimal nutritional status. The major food issues of concern are insufficient/ imbalanced intake of foods/nutrients. The common nutritional problems of public health importance in India are low birth weight, protein energy malnutrition in children, chronic energy deficiency in adults, micronutrient malnutrition and diet-related noncommunicable diseases. The paper focuses on the dietary parameters and the nutrients required for better physical fitness.

Keywords: Dietetics, nutrients, physical fitness, malnutrition.

Introduction:

Food provides energy for physical activity. As you get more active and more fit, your energy needs may change. To get the energy you require, you need to get the proper amount of:

- **Protein**, which is needed to maintain and rebuild tissues such as muscles.
- **Carbohydrate**, which is the body's preferred source of energy.
- **Fat**, which also provides energy.
- **Water**, to replace water lost through activity.

Those who are very active or who are athletes may have special nutritional needs. They usually don't need more protein than other people, but they do need more carbohydrate (grains, vegetables, fruits). Carbohydrate is stored as ready energy in the liver and muscles, and this supply is used up very quickly during exercise. Endurance athletes (such as runners and cyclists) need a particularly large amount of carbohydrate. The carbohydrate needs to be eaten right before and during exercise, because the body cannot store a lot of carbohydrate.

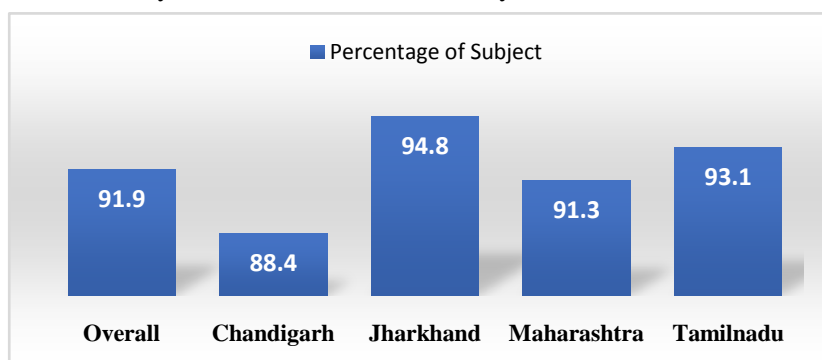


Figure 1: State wise distribution of subjects with no recreational activity.

Figure 1 illustrates the percentage of subjects reporting no recreational activity in the four regions. Overall, 91.9% of the subjects in the four regions did not do any recreational activity [88.4% in Chandigarh, 94.8% in Jharkhand, 91.3% in Maharashtra and 93.1% in Tamil Nadu].

Good nutrition, physical activity, and a healthy body weight are essential parts of a person's overall health and well-being. Together, these can help decrease a person's risk of developing serious health conditions, such as high blood pressure, high cholesterol, diabetes, heart disease, stroke, and cancer. A healthful diet, regular physical activity, and achieving and maintaining a healthy weight also are paramount to managing health conditions so they do not worsen over time.

Previous study shows that a large percentage of people in India are inactive with fewer than 10% engaging in recreational physical activity. Therefore, urgent steps need to be initiated to promote physical activity to stem the twin epidemics of diabetes and obesity in India. The International Diabetes Federation estimates that more than 382 million people worldwide have diabetes as of 2016, and this number is projected to increase to 592 million by the year 2035. Iron Deficiency Anaemia

(IDA), Iodine Deficiency Disorders(IDD) and vitamin B-complex deficiencies are the nutrition problems frequently encountered, particularly among the rural poor and urban slum communities.

Importance and influence of nutrition on physical fitness:

Evidence supports a range of dietary strategies in enhancing sports performance. It is likely that combining several strategies will be of greater benefit than one strategy in isolation. Dietary strategies to enhance performance include optimizing intakes of macronutrients, micronutrients, and fluids, including their composition and spacing throughout the day. The importance of individualized or personalized dietary advice is becoming increasingly recognized, with dietary strategies varying according to the individual athlete's sport, personal goals, and practicalities (e.g., food preferences). "Athlete" includes individuals competing in a range of sport types, such as strength and power (e.g., weight-lifting), team (e.g., football), and endurance (e.g., marathon running). The use of dietary supplements can enhance performance, provided these are used appropriately. This manuscript provides an overview of dietary strategies used by athletes, the efficacy of these strategies, availability of nutrition information to athletes, and risks associated with dietary supplement intake.

Carbohydrate ingestion has been shown to improve performance in events lasting approximately 1 hour. The "train-low, compete-high" concept is training with low carbohydrate availability to promote adaptations such as enhanced activation of cell-signalling pathways, increased mitochondrial enzyme content and activity, enhanced lipid oxidation rates, and hence improved exercise capacity. There has been a recent resurgence of interest in fat as a fuel, particularly for ultra-endurance exercise. A high-carbohydrate strategy inhibits fat utilization during exercise. While protein consumption prior to and during endurance and resistance exercise has been shown to enhance rates of muscle protein synthesis. The purpose of fluid consumption during exercise is primarily to maintain hydration and thermoregulation, thereby benefiting performance.

Performance supplements shown to enhance performance include caffeine, beetroot juice, beta-alanine (BA), creatine, and bicarbonate. Comprehensive reviews on other supplements including caffeine, creatine, and bicarbonate can be found elsewhere. In recent years, research has focused on the role of nitrate, BA, and vitamin D and performance. Nitrate is most commonly provided as sodium nitrate or beetroot juice. Dietary nitrates are reduced (in mouth and stomach) to nitrites, and then to nitric oxide. During exercise, nitric oxide potentially influences skeletal muscle function through regulation of blood flow and glucose homeostasis, as well as mitochondrial respiration. During endurance exercise, nitrate supplementation has been shown to increase exercise efficiency, reduce fatigue, and attenuate oxidative stress.

Exercise and Physical Activity:

Adults over the age of 20 years should undertake a minimum of 30-45 minutes of physical activity of moderate intensity (such as brisk walking 5-6 km/hr) 5-6 days of the week. Greater health benefits can be obtained by engaging in physical activity of longer duration or more vigorous intensity such as jogging, running, cycling and swimming. Sedentary people embarking on a physical activity programme should undertake a moderate intensity activity of short duration to start with and gradually increase the duration or intensity. Other day-to-day activities like walking, housework, gardening, will be beneficial not only in weight reduction but also for lowering of blood pressure and serum triglycerides. It also elevates HDL (good) cholesterol in blood. Simple modification in lifestyle like deliberately climbing up the stairs instead of using the lift and walking for short distance instead of using a vehicle could also immensely help in increasing our physical activity. Exercise program should include 'warm up' and 'cool down' periods each lasting for 5 minutes. During exercise, the intensity of exercise should ensure 60-70% increase in heart rate. Inactive men over the age of 40 years, women over the age of 50 years and people at high risk for chronic diseases like heart disease and diabetes should first consult a physician before engaging in a program of vigorous physical activity such as running and swimming.

Conclusion:

Individuals involved in sports are always looking for an edge to improve their performance, and there are a range of dietary strategies available. Nonetheless, dietary recommendations should be individualized for each sports person and their sport and provided by an appropriately qualified professional to ensure optimal performance. Dietary supplements should be used with caution and as part of an overall nutrition and performance plan.

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Obesity in Children

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Obesity means an excess amount of body fat. It is an abnormal accumulation of body fat, usually 20 percent or more over an individual's ideal body weight. No general agreement exists on the lowest definition obesity in children and adolescents unlike standards of adults. Nevertheless most professionals accept published guidelines based on the body mass index (BMI) modified for age, pubertal stage and gender to increase obesity in children and adolescents.

Obesity has a profound effect on a patient's life. Obesity increases the patient's risk of numerous health problems and it also can create emotional and social problems. Obese children are also more likely to be obese as adults, thereby increasing their lifelong risk of serious health problems such as heart diseases and stroke.

If your child or teenager is overweight, further weight gain can be prevented. Parents can help their children keep their weight in the healthy range.

In infancy, breast feeding and delaying introducing of solid food may help prevent obesity.

In the early childhood, children should be given healthy, low fat, low sugar and to be part in moderate vigorous physical activity every day. Their television viewing should be limited to no more than seven hours per week (this includes sedentary entertainment like video games and internet surfing).

Older children can be taught to select healthy nutritious foods and to develop good exercise habits. Their time spent watching television and playing with computer or should be limited to no more than seven hours each week. Avoid watching movies and videos. Avoid consumption of sugary products, especially those high in corn syrup or fructose derivatives such as regular soda, pop or cola which some regions call phosphate drinks.

Childhood obesity causes

Any patient who regularly consumes more calories than needed will gain weight. If this is not reversed, the patient will become obese over time. Consumption of just 100 kcal (equivalent to 8 ounces of soft drinks).

Imbalance of calorie intake & consumption

Genetic factors :- obesity tends to run in family. A child with obese parents brother or sister is more likely to become obese. Genetics alone does not cause obesity child eats more calories than he or she uses.

Dietary habits :- The dietary habits of children and teenagers have shifted away from healthy foods such as fruits, vegetables and whole grains to a much greater reliance on fast food processed snack food and sugary drinks.

These foods tend to be high in fat and for calories and low in many other nutrients. Several patterns are associated with obesity unhealthy habits include eating when not hungry eating, watching TV or during home were of drinking sodas sedentary activities like at movies or watching TV.

Socioeconomic status

Families with low income or non working parents are more likely to eat excessive calories for activity level.

Physical inactivity

The popularity of television, computers and video games has translated into an increasingly sedentary inactive life style for many children and teenagers in developed countries like the United States. Although specific medical condition can cause pediatric obesity, these are very rare. They include hormones and other chemical imbalance and inherited disorders in metabolism. Certain medication can cause weight gain by altering how the body processes food or stores fat.

Diagnosis of childhood obesity

Weight to height table: - It is up to 20

Body fat percentage:-

Boys : 25% fat

Girls : 32% fat obese

Body mass index
Weight in kg
Height in mtrs
(child weight ponds)/705 Height in inches / wt in inches
Waist circumference(WC)

Childhood obesity treatment

Healthcare professionals and nutrition consultants help child activity and habits support healthy lifestyles changes.

Parents should be supportive regarding child obese parents should love and accept him at his present weight. Encourage him do not criticize. Be aware of our child appearance and social relationship.

Weight loss is itself rarely a goal. Loose body weight gradually over a period of time.

The objective is two problems per month. Should be decreased. An obese child should not become an obese adult.

The most effective treatment for obese children and adolescents is behavior and lifestyle modification under management specialist expensive in dealing with children.

Assessment of child's and family eating habits

Implementation of regular, safe, exercise program and increasing active leisure activity. Limiting television viewing and other secondary activities.

Setting reasonable goals and monitoring good achievement using positive, non-food related incentives.

Counseling regarding how to keep food activity diary to track progress.

Executive support by involving entire family and for joining a weight loss group of pees.

Alternative treatment

Use of ephedra containing drugs on herbal preparation or the use of diuretics and laxative having side effects. Acupressure and acupuncture can suppress food cravings.

You can provide some benefits.

Conclusion:-

As per the above theory it can be say that obesity is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health. Drink this solution on an empty stomach to reduce body fat. Obesity is most commonly caused by a combination of excessive food energy intake, lack of physical activity, and genetic susceptibility. Obesity increases the likelihood of various diseases, particularly heart disease, type 2 diabetes, obstructive sleep apnea, certain types of cancer, and osteoarthritis. There are several ways to prevent obesity, and exercise is one of the most effective. The best way to lose weight is to do so gradually by engaging in regular physical activity and eating a balanced diet. There are also several benefits to becoming physically active, such as reducing your risk of certain medical conditions, improving self-esteem, and reducing anxiety and depression

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Comparative Study Of Anxiety Level Between Male Elite & Sub-Elitevolleyball Players Of Nagpur University

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Abstract:

The main purpose of this study is to present forth the visions on comparison of anxiety between male elite & sub-elite volleyball players of Nagpur University. This study explores anxiety comparison of male elite and sub-elite volleyball players. This research study is qualitative and execute by the technique of descriptive & inferential statistics. The self-administered questionnaire has been used for data collection which is based on five point Likert scale. From research it has been observed that there is no difference between anxiety of elite & sub-elite volleyball players. This research study concludes that anxiety of male elite and sub-elite volleyball players is similar.

Key-words: Anxiety, Volleyball, Elite, Sub-Elite, Male

1. Introduction:

Every year around 1000 male players played volleyball in intercollegiate tournament organised by RTM Nagpur University and approximately 18 players are selected in team of RTM Nagpur University. Every year this team represents RTM Nagpur University in West Zone competition and further All India Inter University Competition organised by Association of Indian Universities. In India Volleyball was introduced by Y.M.C.A, college of physical education, Madras (Chennai, Tamilnadu) during the year 1900 and taken initiative in popularizing the game in India. Therefore researcher sensed a necessity to have a deep vision on variables related with volleyball players. Now a days in the field of sports; trainers, coaches, players not only emphasis on physical fitness and game skill but also on mental skills, because there is need of certain level of mental skill to give better performance and enhance the performance. Anxiety plays important role in the path of performance. It should be neither high nor low; it should be at optimum level for good performance. A short summary of related research studies carried out in different fields of sports are as follows.

1.1 Literature Review:

(Raglin J. S., 2005) J S Raglin & M J Morri reported that athletes in the team sport of volleyball exhibit considerable variation in optimal precompetition anxiety in accordance with ZOF theory. As posited by ZOF theory, the athletes were able to predict anxiety before a difficult match accurately and were more likely to have anxiety levels with ZOF.

(Lynette L.C., 2003) The relationship between the competitive state anxiety inventory-2 & sports performance founded that Relationships among cognitive anxiety, somatic anxiety, self-confidence, and performance appeared weak. Exploratory modeling showed that self-confidence displayed the strongest and most consistent relationship with performance.

(Kristjan Kais, 2004) This study supports that direction of anxiety responses must be taken into consideration when examining anxiety-performance association in sport.

(Hossein S., 2012) While comparing competitive State Anxiety among Elite and Non-Elite Badminton Players in Iran & results that somatic anxiety and self-confidence among elite and non-elite badminton players in Iran is same, but level of somatic anxiety and training experience of elite and non-elite badminton players in Iran is different.

(Gurpreet M., 2012) According to this report there is positive relationship of Mental Skills and Anxiety between Successful teams of men cricket at Delhi Intercollegiate level and negative relationship of mental skills & anxiety of unsuccessful team of men cricket at Delhi Intercollegiate level. And also reports that mental skill & anxiety level of successful teams of men cricket at Delhi differ from successful teams of men cricket at Delhi.

(Mahendra K.S., 2012) Compares competitive anxiety level of tribal male Kho-Kho players at different levels of achievement and states that competitive anxiety level of tribal male Kho-Kho players is different at different levels of achievement.

1.2 Objectives of Study:

1. To examine anxiety of male elite volleyball players of Nagpur University.
2. To examine anxiety of male sub-elite volleyball players of Nagpur University.
3. To compare anxiety of male elite & sub-elite volleyball players of Nagpur University.

1.3 Hypothesis of Study:

There is no significant difference between anxiety of elite & sub-elite volleyball players of Nagpur University.

1.4 Significance of Study:

1. The study will be helpful to understand the difference in anxiety of male elite and sub-elite volleyball players.
2. The study will be enlightened the importance of anxiety for performance.
3. The finding may prove helpful to the physical educators, coaches, trainers and players to prepare their training schedule for better performance.

1.5 Delimitations:

1. The study was delimited to the male volleyball players of intercollegiate level and interuniversity level of Nagpur University.
2. The study was delimited in the age group of 18-28 years.
3. The study was delimited to 54 male elite volleyball players.
4. The study was delimited to 300 male sub-elite volleyball players.
5. The study was delimited to anxiety.

1.6 Limitations:

1. The daily routine life and voluntary participation in other physical activities by the subjects which was not under control of researcher.
2. There was no control over their habits, diet and motivation.
3. There was no control over environmental factors.

2. Research Method:

Descriptive & inferential research design has been used for this study. The research study based on qualitative research technique. Researcher adopted survey method for approaching target respondent.

2.1 Sample Design:

The target population for this study was all male volleyball players of Nagpur University who have played during 2015-2017. The target population for elite group was approximately 54 and for sub-elite group were approximately 2280. The researcher had taken all elite players as sample for one group i.e. a sample of 54 elite volleyball players and sample of 300 sub-elite volleyball players. For sub-elite players cluster was formed on the basis of year of batches of players. Three clusters starting from 2015 to 2017 have been formed and samples were drawn from clusters proportionately.

2.2 Data Collection:

The researcher had used self-administered questionnaire to collect primary data. For data collection questionnaire has been designed.

2.3 Analysis of Data:

A bar graph has been prepared to check the anxiety level of male elite & sub-elite volleyball players of Nagpur University.

Table 1 : Mean of the Group

	SUB – ELITE GROUP	ELITE GROUP
Mean	31.33235	32.16666667
Observations	340	54

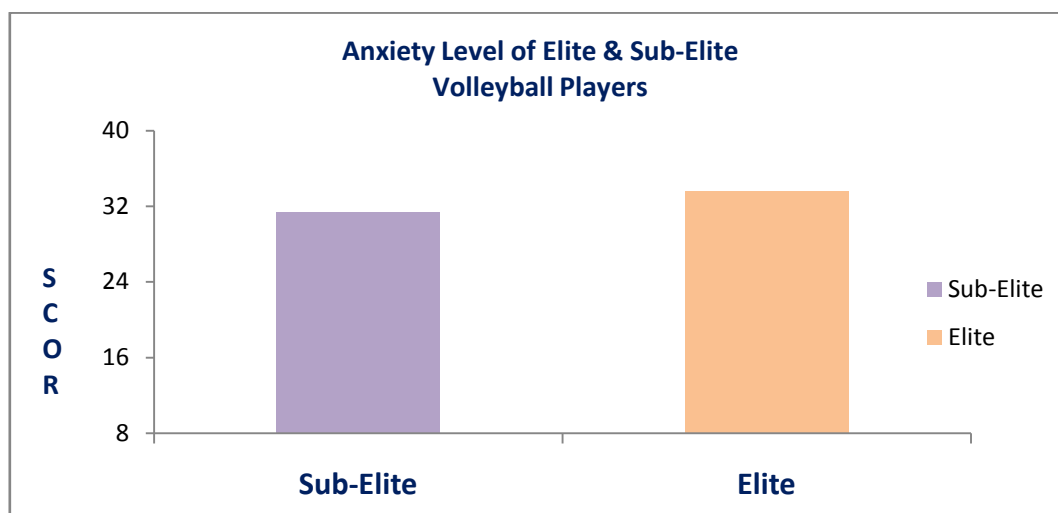


Fig. 1 Anxiety Level of Elite & Sub-Elite Volleyball Players

As it is evident from bar graph there seems very small difference between anxiety level of male elite & sub-elite volleyball players of Nagpur University.

2.4 Testing of Hypothesis:

Null Hypothesis: - There is no significant difference between anxiety of male elite & sub-elite volleyball players of Nagpur University.

$H_0: \mu = 0$

Alternate Hypothesis: - There is significant difference between anxiety of male elite & sub-elite volleyball players of Nagpur University.

$H_1: \mu \neq 0$

*The researcher wish to compare anxiety of elite and sub-elite male volleyball players. Therefore computing t-Test: Two Sample Assuming Equal Variances will be a suitable measure. To check whether there is significant difference between variance of elite & sub-elite group F-Test will be used. For this following is null & alternate hypothesis.

Null Hypothesis: - There is no significant difference between variance of male elite & sub-elite group.

Alternate Hypothesis: - There is significant difference between variance of male elite & sub-elite group.

Table 2 : Result of F Test

Computing F-Test		
	SUB – ELITE GROUP	ELITE GROUP
Mean	32.16666667	31.33235
Variance	13.4245283	15.65028
Observations	54	340
df	53	339
F	0.857782118	
P(F<=f) one-tail	0.251896257	
F Critical one-tail	0.689804499	

As p-value (0.251) > 0.05, Null hypothesis is accepted i.e. variance of both groups were same.

*Now check the difference between calculated mean of both groups is significant or not by t-Test: Two Sample Assuming Equal Variances.

Table 3 : Result of Hypothesis Testing

Hypothesis Testing		
Computing p-value		
	SUB – ELITE GROUP	ELITE GROUP
Mean	31.33235294	32.16666667
Variance	15.65027763	13.4245283
Observations	340	54
Pooled Variance		15.34934724
Hypothesized Mean Difference		0
df		392
t Stat		1.45369287
P(T<=t) one-tail		0.073415794
t Critical one-tail		1.648750052
P(T<=t) two-tail		0.146831588
t Critical two-tail		1.966034107

Since t-critical two-tail (1.96)>T Statistics (1.45)& p-value (0.146)< $\alpha/2$ (0.025), therefore null hypothesis rejected.

1. Interpretation:

There is significant difference between anxiety of male elite & sub-elite volleyball players of Nagpur University at 0.05 significance level.

2. Conclusion:

It has been founded that there is significant difference between anxiety of male elite & sub-elite volleyball players of Nagpur University. It is concluded by this research study that anxiety of maleelite volleyball player is differ from anxiety of malesub-elite volleyball player.

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Effect Of Computer Work On Eyes And Remedies To Overcome Eye Tension

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Abstract:

This paper highlighted the idea of avoiding the problems of computer. Working continuously for eight to ten hours on computer, many kinds of diseases are preoccupied or suffer from stress and fatigue. Surely, there is also the loss of eye by keeping the eye on the computer continuously, apart from this; there are also many small problems that arise, so that we keep fighting unknowingly.

Introduction:

Every day the human being is increasingly growing. Necessity is being made to meet new connectors. If we say that the necessity is the mother of invention, then there will be no exaggeration. To fulfill its daily needs, man has always come to be the latest innovators. By the way, there are many disadvantages of working on the computer, some of which are from this invention.

Disadvantages of Working on the Computer

Lack of vision, memory defects, back pain, unnecessary fatigue, irritability etc. Continuing to work on the computer, our brain and our eyes are so tired that only sleep can not provide relief. It has been seen that most people working on computers for eight to ten hours daily have become defective. They have started wearing glasses of some number. Apart from this, they also found a memory defect. Because of the burden and pressure of work, irritability in them has become common. It is different from the fact that he took office off anger at home. Experts are often discussing the heavy physical and mental impairment due to computer access.

The first thing that your computer is right in front of your eyes. It should happen that you have to keep the eyes of continuous on it, then just take a system that is less than three feet away with eyes. Secondly, while working on a computer, look at 20 feet away every 5 to 10 minutes at your convenience. It will remain distant from this. To avoid memory defects, remember your day-to-day work in reverse order. Think again about the food you eat. Take advantage of meditation and yoga sleepiness to eradicate fatigue. Continuing work in front of a computant has an impact on our eyes, it is necessary to prevent a little break. But, continuing to work on a computer is also an effect on our health. This leads to additional pressure on our eyes, due to which the eyes may be red and tired. Not only this, it also affects the eyesight. You can try these solutions to reduce this pressure on the eyes. Keeping eyes fixed on the computer screen constantly puts a lot of pressure on the eyes. So it is important for you to take breaks for a while. For a while, remove your eyes from the computer and focus on something away, or you can go out of your seat for a while. Perform this action at 20-30 minute intervals.

Continuous blinking of the eyelids is an effective way to keep the eyes fresh and reduce the pressure on them. Those who work on computers should keep blinking their eyelids every three to four seconds. Actually, there is a substance in our eyes, which is formed by the blinking of the eyelids. But if you keep working without blinking, then this fluid can dry and it can lead to light of the eyes. Keep in mind that there is enough lights on your workplace. Along with that, you should avoid sitting under the air conditioner because it can reduce the moisture content of the eyes and the eyes may be rigid.

Rubbing your palms together and keeping them on your eyes for some time. Let the hands slightly relax the eyes muscles. Whenever you get time in the day, do this action. It is quite beneficial for eyes. Make round-the-clock massage on the eyelids and eyes muscles with your finger. This gives relief to the eyes and their stress is reduced. If there is a lot of pressure on your eyes, then once you

adjust your brightness and contrast control of your computer. This will also benefit your eyes. Do not keep the computing brightness more or less.

This is also called organ operation. Each limb has different names for operation, but we do not go into the detail, let's point out that the eyes are rotated in the right-left and up-down and then round-round. This will strengthen the muscles of the eyes. To get rid of back pain, bend the right-hand side to the elbow and keep the fingers of both hands on the shoulder. Then shaking the elbows of both hands and breathing, carrying the elbows from the front to the top, moving them towards the bottom and breathing downwards. Do this 5 to 6 times, and then move the elbows in the opposite direction. Move the neck right-left, then top-down, round-round, rotate from left to right then left to right. Just this time we have brought yoga tips for those people who are victims of many kinds of diseases by working for eight to ten hours on the computer or are suffering from stress and fatigue. Of course, there is a loss to keep the eye on the computer continuously, apart from this, there are also many small problems that arise, which keeps us fighting unknowingly.

Conclusion:

Continuously work on computer arise problem in eye and other problem which occurred unknowingly to overcome that we need to take some precaution and by keeping some simple habits we can avoid the major problems in life and keep the life healthy and happy.

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Correct Protective Gadgets for Safety in Sports

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Introduction:-

Personal defensive gadget serves an crucial position in maintaining the protection of an athlete taking part in a undertaking. The utilization and development of shielding tools in sports has superior via time, and maintains to reinforce over the years. Many sports activities league or professional sports activities mandate the supply and usage of shielding gadget for athletes in the game. Usage of protective equipment is also mandated in college athletics and now and again in amateur sports activities.

For a few sports, protecting system is critical to prevent harm to contributors. This is specifically essential when the game or interest involves bodily touch with different players and participants. Protective equipment might also encompass shin pads (utilized in soccer and hockey), boxing gloves or shielding head tools. All those pieces of device are designed to save you injury to prone parts of the body.

It is likewise vital to put on correct footwear while taking part in sports activities. The accurate shoes can provide support to the foot and ankle, assisting to save you twisting and harm. Protective head tools is glaringly extraordinarily important, as helmets defend the cranium and the brain from damage. This is essential in touch sports activities wherein the top may be knocked.

Sports safety gadget:-

Sports safety equipment can also once in a while look a little bit unusual, but the use of the proper shielding protection tools on your sport is crucial for preventing critical injuries or reducing the severity of an harm you may acquire.

□ Proper Footwear and Athletic Shoes:-

The kind of shoe you put on at some point of sure sports can effortlessly be added to the protection gadget list. Sports cleats are important for the duration of subject sports activities, including soccer, baseball, and soccer. The proper jogging shoes can lower your threat of overuse injuries. Special biking shoes can reduce foot ache and growth your pedaling efficiency. Court shoes with guide and properly traction are designed especially for basketball, tennis, and racquetball.

□ Mouth Guards:-

If you've got ever been smacked in the jaw by way of a stray ball or flying elbow while playing sports, you probably recognize how vital a mouth defend is to keeping your enamel intake. But mouth guards additionally assist prevent tongue and lip injuries, and reduce the danger of struggling a concussion or fractured jaw.

Mouth guards have to be considered mandatory safety equipment all through sports activities that have any chance of damage to the face, jaw, and mouth. The best mouth guards healthy nicely and are at ease, but they also live in location, are long lasting, smooth to clean and don't restrict talking and respiratory.

□ Safety Pads and Guards:-

Safety pads and guards are trendy protection device in dozens of sports. If you play positive contact sports, which include football, hockey or lacrosse, protective pads are mandatory, but you must put on pads for any contact sport. The kind and style of pads seem countless and include shin, knee, elbow, wrist, chest, neck, shoulder, hip, and thigh pads.

Some sports, which include inline skating and skateboarding, consist of wrist, knee, and elbow guards as well known gadget. These tough plastic guards save you cuts, scrapes and abrasions and decrease the odds of a first-rate sprain, stress or even a fracture after a tough fall.

□ **Protective Eyewear:-**

According to the American Academy of Ophthalmology, greater than 90 percentage of all eye injuries may be averted with using suitable defensive eyewear. This advice truly applies to athletes or all people who participates in sports activities.

□ **Helmets:-**

If you play soccer or hockey, sporting a helmet is certainly a "no-brainer," but many athletes who take part in sports activities with a excessive chance of head harm still see the helmet as optionally available. If you cycle, ski, snowboard, skateboard, or inline skate you should additionally take into account helmet general system. A nicely outfitted helmet, designed for the particular sport you play, extensively decreases your chance of struggling a serious head harm.

Conclusion:-

Safety equipment is a vital part of fitness. Whether you are getting yourself fit by following a fitness plan, participating in sports, attending exercise classes or going to a gym, staying safe is vital. One injury can knock your fitness back by months. Many people gain weight while recovering from an injury, and for some people a bad injury while playing sports can end their career. For instructors and personal trainers, we have already touched on the risks – both your reputation and your business can be at risk if you fail to ensure the safety of your students.

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Sports Performance Improvement Through Physical Therapy

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Introduction:-

Sports medicine professionals include scientific doctors, bodily therapists, athletic trainers, and even rub down therapists. Their education and know-how encompasses evaluation and diagnosis, treatment, management and referral, rehabilitation, education, and prevention.

Physical therapists are experts in how the healthful human body have to move, remain mobile, match, and active thru lifestyles. The intention of all bodily remedy is to restore function and mobility, manage or alleviate pain, and go back an man or woman to their life-style and athletes to their sport.

Targeted and professional bodily remedy can transform the man or woman's potential to deal with sports demanding situations. Qualified and licensed sports remedy facilities utilize cutting side sports technology and treatments to achieve most excellent athletic fitness and capability. They apprehend the needs of education, and recommend on a way to prevent accidents, relieve ache, and optimize overall performance.

Sports Physical Therapist Treated following Conditions include all types of injuries to:-

- Neck & Spine
- Hand
- Elbow
- Knee
- Hip
- Shoulder
- Ankle/Foot

Sports physical therapists provide treatment for non-surgical and surgical injuries and conditions:-

- Pre and post surgery consultation and treatment
- Pre and post op exercise programs and therapy
- Instrument-guided soft tissue mobilization
- Fascial release
- Joint mobilization
- Muscle strengthening exercises
- Stretches
- Trigger point release
- Plyometrics
- Sport-Specific Skill Training
- Strength Training Workouts
- Treadmill Exercises

Advantages of Sports Physical Therapy:-

□ **Functional Testing:-**

The sports activities physical therapist will positioned the athlete via a series of routines to check and determine their capability and mobility, looking for regions of pain and weakness.

□ **Unique Treatment Plan:-**

This test information turns into the bottom for a customized treatment plan taking in weaknesses, painful regions, and the bodily and positional demands of their specific game.

□ **Prevention Techniques:-**

The aim of sports physical running shoes is to heal sports activities accidents. Simultaneously, they cognizance on offering equipment and sporting events to keep electricity, stability, and health to save you a recurrence of those accidents or problems.

□ **Reduce or Eliminate Pain:-**

Therapeutic sports, guide techniques, and manipulations with equipment consisting of ultrasound, taping, or electric stimulation to alleviate ache, repair muscle and joint characteristic, and may save you recurrence.

□ **Avoid Surgery:-**

Effective bodily remedy may additionally remove the want for surgery, hasten healing, and reduce healthcare fees.

□ **Improve mobility:-**

Stretching and strengthening physical games and assistive gadgets restore mobility.

□ **Certified Athletic Trainers:-**

A customized bodily remedy application can assist individual sportsmen and athletes, and entire sports activities teams return to their prior stage of functioning thru ongoing care from a group of expert sports physical therapists on or off the sports subject. They will examine and be encouraged in sports and way of life adjustments that could help prevent in addition harm and improve general health and well-being.

Conclusion:-

Most people think that, when an athlete is hurt, they see a physical therapist, but if they are looking to run faster, jump higher, or get stronger, they see a personal trainer or strength coach. The fact is that a physical therapist can help a healthy athlete improve their performance, too.

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The Importance of Physical Therapy in Sports

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Introduction :-

Sports Physiotherapy is the specialised department of physiotherapy which deals with injuries and troubles associated with sports humans.

Sports accidents do range to regular accidents. Athletes typically require excessive stage overall performance and demand located upon their body, which stresses their muscle tissues, joints and bones to the limit. Sports physiotherapists assist athletes get over wearing accidents, and provide schooling and resources to prevent problems.

Each sports physiotherapist generally has game-precise expertise that addresses acute, chronic and overuse accidents. Their offerings are generally available to sports activities women and men of all ages engaged in sports activities at any stage of opposition.

Sports Physiotherapist have reveal in and know-how of the latest proof-primarily based exercise, professional assessment and prognosis of sports injuries, and use powerful 'palms-on' management techniques and workout protocols to help restoration and prevent injury. SPA participants have get admission to to the maximum current advances in sports activities physiotherapy. You'll be thrilled to recognize that maximum of Physio Works physiotherapists and rub down therapists have a unique interest in sports damage management.

The importance of physical therapy in sports can never be overstated. Sports physical therapy is a specialized practice that focuses on prevention, evaluation, treatment/rehabilitation, and performance enhancement of the physically-active individual. Here are the major benefits of physical therapy:

➤ **Injury Management and Rehabilitation:-**

When injuries do occur, the physiotherapy team responds rapidly to assess and diagnose the problem, identify the cause and establish the impact of the injury on the athlete. Practitioners are responsible for leading a cohesive and integrated management/evidence based rehabilitation strategy to ensure that the athlete is able to return to full fitness as effectively and as safely as possible. Physiotherapists are integral to the team, working closely to re-establish physical qualities, address modifiable factors associated with injury causation and develop a comprehensive, progressive plan to re-integrate the athlete into the sporting environment.

➤ **Performance Threat Management:-**

The physiotherapy team facilitates the identification of athletes who may be predisposed to injury and works collaboratively with the athlete, coach and interdisciplinary team to mitigate the risk of sustaining injury during training and competition.

➤ **Performance Enhancement:-**

Reducing the risk of each sports' most prevalent injuries alongside optimal injury management, maximises the availability of athletes to train and perform. Working collaboratively with the coach and athlete support team, physiotherapists also identify and deliver technical performance indicators aligned to 'what it takes to win' through targeted projects and prehabilitation/rehabilitation strategies.

Conclusion:-

The pain and aches of training are one of the many challenges competitive athletes can overcome via physiotherapy. However, you don't have to be an athlete to advantage from this powerful form of remedy. Whether you have been inactive for some time and looking to get lower back into form or decided to obtain the impossible, physiotherapy will assist you in acquiring your goals.

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Physiotherapy Treatment Techniques in Sports

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Intoduction:-

Sports Physiotherapy is the specialised branch of physiotherapy which deals with accidents and problems associated with sports humans.

Sports accidents do fluctuate to normal accidents. Athletes usually require excessive stage performance and demand located upon their frame, which stresses their muscle tissue, joints and bones to the restriction. Sports physiotherapists help athletes recover from wearing accidents, and offer training and assets to save you troubles.

Each sports physiotherapist normally has sport-particular know-how that addresses acute, continual and overuse accidents. Their offerings are normally to be had to sports activities males and females of every age engaged in sports activities at any level of opposition.

Sports Physiotherapist have revel in and understanding of the brand new proof-based totally practice, professional evaluation and analysis of sports activities injuries, and use powerful 'arms-on' control strategies and exercising protocols to help recovery and save you damage. SPA members have get entry to to the maximum recent advances in sports activities physiotherapy. You'll be pleased to understand that most of Physio Works physiotherapists and rubdown therapists have a special interest in sports harm management.

❖ Physiotherapy Treatment Techniques

There are well over 20 different treatment approaches commonly used by your physiotherapist.

➤ *Hands-on Physiotherapy Techniques:-*

Your physiotherapist may be trained in hands-on physiotherapy techniques such as:

- Joint mobilisation (gentle gliding) techniques,
- Joint manipulation,
- Physiotherapy Instrument Mobilisation (PIM).
- Minimal Energy Techniques (METs),
- Muscle stretching,
- Neurodynamics,
- Massage and soft tissue techniques

In fact, your physiotherapist has training that includes techniques used by most hands-on professions such as chiropractors, osteopaths, massage therapists, and kinesiologists.

➤ *Physiotherapy Taping:-*

Your physiotherapist is a highly skilled professional who utilises strapping and taping techniques to prevent injuries.

Some physiotherapists are also skilled in the use of kinesiology taping.

➤ *Acupuncture and Dry Needling:-*

Many physiotherapists have acquired additional training in the field of acupuncture and dry needling to assist pain relief and muscle function.

➤ *Physiotherapy Exercises:-*

Physiotherapists have been trained in the use of exercise therapy to strengthen your muscles and improve your function. Physiotherapy exercises have been scientifically proven to be one of the most effective ways that you can solve or prevent pain and injury.

Your physiotherapist is an expert in the prescription of the "best exercises" for you and the most appropriate "exercise dose" for you depending on your rehabilitation status. Your physiotherapist will incorporate essential components of pilates, yoga and exercise physiology to provide you with the best result.

They may even use Real-Time Ultrasound Physiotherapy so that you can watch your muscles contract on a screen as you correctly retrain them.

➤ *Biomechanical Analysis:-*

Biomechanical assessment, observation and diagnostic skills are paramount to the best treatment.

Your physiotherapist is a highly skilled health professional with superb diagnostic skills to detect and ultimately avoid musculoskeletal and sports injuries. Poor technique or posture is one of the most common sources of repeat injury.

➤ **Sports Physiotherapy:-**

Sports physio requires an extra level of knowledge and physiotherapy skill to assist injury recovery, prevent injury and improve performance. For the best advice, consult a Sports Physiotherapist.

Conclusion:-

Physiotherapists use a variety of methods to treat medical concerns, the methods they choose will depend not only on the particular physical concern but are tailored to the individual in terms of their level of sport participation and post-recovery goals.

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Role of Physical Therapy in Sports

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Introduction:-

A sports activities & exercising physiotherapist is a known professional who demonstrates superior abilities within the promotion of secure bodily activity participation, provision of recommendation, and edition of rehabilitation and schooling interventions, for the purposes of preventing injury, restoring most useful characteristic, and contributing to the enhancement of sports overall performance, in athletes of all ages and abilities, whilst ensuring a high popular of professional and ethical practice.

Physiotherapists consciousness on evaluating, restoring and retaining bodily characteristic and mobility. Athletes are normally moving and pushing their limits. All this pressure and exhaustion can take a toll on your fitness. Many athletes suffer from pain whether or not or not it's from "placed on and tear" or a sports related harm. A physiotherapist can offer athletic harm control, such as acute care, remedy and rehabilitation and education to prevent further damage and ache.

A sport physiotherapist is a expert who's skilled within the prevention and control of injuries sustained through sport and exercise by means of developing, maintaining and restoring maximum movement and useful capability in their patients. Their 3 principal focuses are: stopping injury, restoring most beneficial characteristic, and contributing to improving game performance.

- **Prevention:** This includes a focus on risk management around potential injury. Knowing an athlete's sport and medical history helps the therapist design strategies to reduce the risk of injury.
- **Injury or Illness Recovery:** This involves a clinical evaluation, diagnosis and treatment plan integrating the goals of the athlete in terms of performance. Strategies around returning the athlete to optimal performance are coordinated with minimizing the risk of re-injury.
- **Enhancing Performance:** A sport physiotherapist can be part of the athlete's support team in helping to develop strategies to enhance an athlete's physical capacity through their knowledge of efficient movement technique.
- **Advisory Capacity:** Sport physiotherapists can play an important role with individuals and organizations, supporting them in promoting safe and healthy activity. They work with individuals to create strategies as outlined above. They can also work with sport organizations to create a comprehensive medical support system at all levels of sport.

Physiotherapists use a variety of strategies to deal with clinical issues, the methods they pick out will rely not best at the particular physical concern but are tailored to the character in phrases in their degree of sport participation and post-healing dreams. Treatment interventions may include:

- **Cold therapy/Crotherapy** – helps to minimize pain and inflammation such using things such as ice packs and ice massage.
- **Heat Therapy** – helps to improve blood flow to speed healing, softens tight tissues and relieves pain using things such as hot packs, paraffin wax baths, infrared heat, ultrasound, diathermy, etc.
- **Electrical Stimulation** – helps prevent muscle atrophy and can assist in gaining some muscle strength through the use of electrical pulses through electrodes to activate muscle shortening.
- **TENS** – transcutaneous electrical nerve stimulation, a type of electrical stimulation doesn't cause muscle contractions but rather uses electrical pulses to temporarily relieve pain.
- **Range of Motion Exercises** – help to increase or maintain flexibility and to reduce stiffness. These can include passive range of motion exercises, active assistive range of motion exercises or active range of motion exercises.
- **Strengthening Exercises** – are an important part of the rehabilitation process to build strength and prepare for return to previous or better performance levels.

- **Soft Tissue Mobilization/Massage** – help to relax tight muscles, relieve pain and reduce swelling.

As outlined right here, recreation physiotherapists can provide an critical support position in assisting athletes and energetic people stay in the game at an surest degree. Whether it is treating or preventing harm or supplying expert assessment and strategies to improve technique and overall performance, these experts have a wealth of information that assist you to live energetic and safe in game.

Conclusion:-

Professional athletes have the get admission to to a physiotherapist around the clock throughout education and competition. For athletes to retain to have a complete range movement, prevent injuries, and feature the energy to win gold medals, they need to be dealt with by way of physiotherapists to save you or treat injuries and decrease recovery time.

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Mental Imagery In Sports Performance

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Introduction:-

Mental imagery involves the athlete imagining themselves in an environment performing a specific activity using all of their senses (sight, hear, feel and smell). The images should have the athlete performing successfully and feeling satisfied with their performance.

Mental Imagery has many uses not just in sport, but pretty much any occupation where motor (learnt) skills need to be performed to a high standard (such as surgery), as well as something as mundane as trying to remember a shopping list. Within sport it can be used for many different tasks from mental rehearsal (practicing your 'lines') to past performance accomplishments (mental highlights reel), to correcting mistakes, to 'downloading' what you have learnt in training that day. It is one of the most powerful and effective tools available to athletes and sport psychologists.

Mental practice is a recognized and often effective method for influencing the proficiency of physical performance. It is suggested, however, that "mental practice" and "imagery" are general labels applied to a variety of procedures that have different goals and uses for influencing human physical performance. This commentary argues that imagery usually is implemented for two different intentions in physical performance endeavors--skill development/learning and competition performance preparation--and that different procedures and elements are associated with each purpose.

What can mental imagery be used for?

Mental Imagery can be used to:

- **Familiarize** the athlete with a competition site, a race course, a complex play pattern or routine etc.
- **Motivate** the athlete by recalling images of their goals for that session, or of success in a past competition or beating a competitor in competition
- **Perfect skills** or skill sequences the athlete is learning or refining
- **Reduce negative thoughts** by focusing on positive outcomes
- **Refocus** the athlete when the need arises e.g. if performance is feeling sluggish, imagery of a previous best performance or previous best event focus can help get things back on track
- **See success** where the athlete sees themselves performing skills correctly and the desired outcomes
- **Set the stage for performance** with a complete mental run through of the key elements of their performance to set the athlete's desired pre-competition feelings and focus.

Mental imagery should not focus on the outcome but on the actions to achieve the desired outcome.

How does it work?

When we learn new skills our brain cells form new connections with other groups of cells and also the amount of myelin (white fatty tissue) surrounding the new connections increases. This acts as insulation and prevents the signals from 'leaking out', improving memory and therefore skill. Specific sections of the brain, responsible for certain skills have actually been found to be larger in experts.

When should mental imagery be used?

To become proficient in the use of imagery you have to use it every day: on your way to training, during training and after training. In every training session, before you execute any skill or combination of skills, first do it in imagery. See, feel, and experience yourself moving through the actions in your mind, as you would like them actually to unfold. In the competition situation use imagery before the start of the event and see your self performing successfully/winning.

How can I stay focused?

You have probably seen an athlete become angry at their performance. The situation here is that the athlete is focusing on the mistake (negative attitude), something that cannot be changed, and not on how to improve their performance (positive attitude).

In sports psychology "pattern breaking" routines are used to help prevent the athlete falling into this negative attitude. A "pattern breaker" can be a word or phrase used by the coach in training or competition to move the athlete from a negative attitude to a positive one. Many athletes have a role model who they try to emulate. Providing the role model is suitable then their name could become the "pattern breaker" phrase for the coach to use when the athlete takes on a negative attitude to a task. On hearing their role model's name the athlete will shift their focus to how their role model would react and assume a positive attitude to the task. Overtime the athlete will begin to recognize when they are focusing on negative thoughts and use the "pattern breaking" word or phrase (repeating it in their head) to get themselves to switch off the negative thoughts and get back into a positive attitude.

What are the benefits?

Mental Imagery itself can be useful in a number of circumstances including:

- developing self confidence
- developing pre-competition and competition strategies which teach athletes to cope with new situations before they actually encounter them
- helping the athlete to focus his/her attention or concentrate on a particular skill he/she is trying to learn or develop
- the competition situation

When combined with relaxation it is useful in:

- the promotion of rest, recovery and recuperation
- the removal of stress related reactions e.g. muscular tension
- establishing a physical and mental state which has an increased receptivity to positive mental imagery
- establishing an appropriate level of physical and mental arousal prior to competition

The "Quick Set" routine:-

The "Quick Set" routine, which involves physical, emotional and focus cues, can also be used as a means of refocusing quickly following a distraction.

An example of this "Quick set" routine for a sprinter could be:

- Close your eyes, clear your mind and maintain deep rhythmical breathing, in through your nose and out through your mouth (physical cue)
- Imagine a previous race win, see yourself crossing the line in first place and recreate those emotional feelings of success (emotional cue)
- Return your focus to the sprint start, think of blasting off on the 'B' of the bang with the appropriate limb action (focus cue)

"You only achieve what you believe":-

I use this quotation when I hear an athlete make a negative statement about their ability and to focus their attention when assisting them to develop mental imagery skills.

The way forward:-

The benefits of mental imagery have been outlined and I have found that when an athlete is in a fully relaxed state, they are particularly receptive to mental imagery. The next stage is the creation of scripts to help in developing and apply mental imagery skills.

Conclusion:-

Imagery can give you a short-cut by helping reinforce these groups of brain cells responsible for new skills simply by just thinking about those skills. Done in the right way it can be a close second to actual physical practice as shown below by an experiment where 3 groups were given a new task to perform: one with no practice; one with mental practice only and a third with physical practice only. The 'no practice' group improved very slightly. The 'physical practice' group improved the most, but the 'mental practice' group improved nearly as much over 10 days. This shows how massively important mental practice (imagery) is. If combined with physical practice the line would have been higher still. So the obvious implication is that if you do both and your opponent does not, you have an obvious advantage already in terms of practice hours and therefore preparation. With sport science 'leveling the playing field' in terms of human performance, every slight advantage you can get is vital. The higher up you go in sport, the more important mental factors will become, as technical, tactical and physical attributes will be more even.

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Mental Health Benefits of Exercise

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Introduction:-

Sports psychology is a particular region of psychology that deals with the intellectual nicely-being of athletes and the intellectual and emotional elements that may have an effect on sports performance.

Everyone is aware of that ordinary exercise is right for the body. But exercise is also one of the only approaches to enhance your mental fitness. Regular exercise could have a profoundly positive impact on depression, tension and more.

What are the mental fitness blessings of workout?

Exercise isn't always just about aerobic potential and muscle size. Sure, exercise can improve your physical health and your body, trim your waistline, improves your intercourse life, and even provides years to your life. But that's not what motivates most of the people to stay energetic.

People who workout often generally tend to do so because it offers them an good sized experience of well-being. They experience extra active all through the day, sleep higher at night, have sharper reminiscences, and feel more comfy and fine approximately themselves and their lives. And it's also powerful medication for plenty not unusual intellectual fitness challenges.

First, permit's test out only a few of the mental health blessings of everyday workout:

Improves awareness:-

Exercise helps improve usual productivity and concentration. According to investigate, everyday exercise releases mind chemicals which are keys for reminiscence, concentration and intellectual sharpness.

Increase Relaxation:-

Moving round five to 6 hours earlier than bedtime raises the body's core temperature. When the body temp drops returned to everyday some hours later, it signals the body that it's time to sleep. Working out will have advantageous results some distance beyond the gymnasium. Gaining self-confidence, getting out of a funk, and even thinking smarter are a number of the motivations to take time for exercise on a ordinary basis.

Helps relieve symptoms of hysteria and despair:-

It is tested that exercise can assist with depression. When you exercising your frame releases endorphins. Endorphins are related in your brain; they assist lessen your awareness of ache by way of triggering superb emotions to your thoughts and frame.

Improve Self-Confidence:-

On a completely basic stage, bodily health can raise self-esteem and enhance superb self-picture. Regardless of weight, length, gender or age, exercising can speedy raise a person's belief of his or her beauty, that is, self-worth.

You simply made it via an intense workout – you experience exact, glad and carried out. If your goal is to shed pounds, when you start seeing consequences, you're probably to experience greater confident.

Sharpen & Improve Memory:-

Regular physical interest boosts memory and capability to analyze new matters. Exercise has the ability to at once improve your brain function. It allows it characteristic at its full ability. It has also been proven that workout may additionally assist lessen the risk of dementia and Alzheimer's disorder.

Enjoy the Great Outdoors:-

Exercising inside the terrific outdoors can growth self-esteem even extra. Find an out of doors workout that fits your fashion, whether or not it's rock-hiking, hiking, renting a canoe or simply taking a jog inside the park.

Reduce Stress:-

Exercising regularly has been verified to help reduce stress. One of the most not unusual intellectual blessings of workout is stress alleviation. Working up a sweat can help manipulate

physical and intellectual strain. So cross beforehand and get sweaty - operating out can lessen pressure and improve the body's capability to deal with existing mental tension.

Boost Brainpower:-

Studies suggest that a tough exercise will increase levels of a mind-derived protein inside the frame, believed to assist with choice making, higher wondering and mastering.

Help Control Addiction:-

On the brilliant aspect, exercise can assist in dependency recovery. Short exercise periods also can correctly distract drug or alcohol addicts, making them de-prioritize. Exercise can help reboot the frame clock, assisting people hit the hay at the proper time.

Boost Happy Chemicals:-

Exercise releases endorphins, which create feelings of happiness and euphoria.

Reduces fatigue:-

Regular exercising has the capability to fight fatigue, growth your electricity, enhance your muscle energy and enhance your endurance.

Conclusion:-

Most human beings begin exercise as a bodily health aim—commonly to lose weight, enhance bodily fitness, or tone up. And that is awesome. But, many are blind to the notable intellectual health benefits to be received through everyday exercise. A wide variety of research show that making time for workout provides a few critical mental advantages.

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Advanced Sporting Technologies For Athletic Performance

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Introduction:-

With the implementation of technology, correct decisions have been made, giving to the right team the winner place. The use of technology has its pros and cons but almost every sport now days is supported by it allowing to fans, athletes and judges, a more enjoyable environment while watching, playing or deciding a sport event such as Tennis or Swimming. With implantation of modern cameras for instant replay, new materials for racquets as well as automatic heating system for pools and sophisticated swimsuit new techniques and rules are being used in order to preserve the authenticity of the olden sport, where the athletes make the effort to win a medal or a position in the history.

➤ *What are sporting technologies?*

Sporting technologies are guy-made manner advanced to reach human pursuits or dreams in or relating to a selected recreation. Technology in sports is a technical way by way of which athletes try to enhance their training and competitive environment with the intention to beautify their ordinary athletic overall performance. It is the understanding and alertness of the usage of specialized system and the state-of-the-art cutting-edge technologies to perform tasks greater correctly. Examples of wearing technologies consist of golfing clubs, tennis rackets, pole vault poles, athletic sports tools (clothing and footwear), advanced computer stimulations and movement seize.

➤ *What are the advantages of advanced sporting technologies?*

Recent trends in sporting technologies have created an expansion of products aimed toward improving and increasing athletic performance. The health and well-being of performers can be maintained and observed, and accidents treated, via the production of technology which include coronary heart charge monitors, pedometers and frame-fat monitors. The use of these has given people more expertise of the frame and its capacity to soak up exercising, which in flip has allowed athletes to teach and compete in sports to a miles older age. The safety of these concerned has additionally be helped through the development of sure wearing device, inclusive of helmets and body protection which are used as an instance in cricket and hockey to assist prevent injuries. Modern wearing technologies have additionally made officiating simpler and more accurate, and spectator interest and excitement is improved by means of broadcasting and in-stadium shows or scoreboards.

➤ *How can technology be used to enhance athletic performance?*

Sports gear which include garb and footwear need to be consumer-pleasant and encompass precious houses which includes electricity, flexibility, density, thickness, durability, longevity, resistance to moisture and greater importantly value. Footwear is usually taken into consideration extra for comfort and harm avoidance in place of performance enhancement, while garb including the full frame fits used in swimming are frequently claimed to rationalise the competitor's performance times wherein prevailing or losing the race is measured in hundredths of a second. Sporting equipment including the composite tennis racket has been created if you want to offer greater ball pace, and decrease the capability vibration that could lead to a circumstance called tennis elbow (damage to the small blood capillaries inside the muscles and ligaments that surround the elbow joint). In other carrying device together with the golfing membership, the overall mass of the membership has reduced which is believed to result in a more manageable distance and possibly a extra particular shot. The bicycle has additionally undergone modern-day day advances with the improvement of specialist wheels, pneumatic tyres, damage levers and pedals, which are all aimed toward growing balance and pressure of the bicycle.

➤ *How can technology be used to analyse athletic performance?*

Technologies inclusive of 'smart' system may be used to measure performance. These encompass devices used for workout stress checking out and cardiovascular evaluation, human response time and frequency of movement meters, and devices together with force systems that measure the traits of jumping and jogging. More current technology which includes motion seize evaluation also are used to examine overall performance. This involves digitally recording on

cameras, the actions of athletes at some stage in wearing sports that may then be used for assessment via the performer and/or their educate, or for more desirable spectator amusement.

➤ ***What are the ethical considerations surrounding the use of technology in sports?***

The use of present day technology in recreation might also suggest that opposition at the uppermost stage is best affordable to the leading top athletes because of the potential high prices of specialized sports gadget. In the ones sports activities incorporating individuals with a specific incapacity, there are a diffusion of methods in which assistance may be given. For instance, modifications to buildings can be made to lead them to wheelchair handy, specialised equipment can also be produced and schooling to sports individuals can be provided on the way to supply precise help to those with a incapacity.

➤ ***Advances in technology had a profound impact on sport including:-***

- Analysis of sport performance and enabling coaches to greatly improve the quality of feedback to players/athletes
- Increase accuracy in time measurements of sport performance
- Enabling referees, umpires and sport officials to make better decisions on rule infringements
- Improvements in the design of sport equipment and apparel
- Providing spectators with better viewing of sport performance

➤ ***Areas of technology that can be used to improve performance:-***

1. Equipment, e.g. tennis rackets/cricket helmets
2. Clothing, e.g. lycra shorts/lightweight protection
3. Footwear, e.g. running shoes/football blades
4. Surfaces, e.g. all-weather/artificial pitches
5. Facilities, e.g. sport-specific venues/climate control,
6. Cameras, e.g. photo-finish/action replay
7. Computers, e.g. storage of information/match analysis
8. Software, e.g. technique analysis/dartfish

➤ ***Advantages of technology for spectators:-***

1. Increased experience at home through use of more cameras/player cam
2. Wider range of sports accessible/visible through technology eg glass walls in squash
3. All-weather surfaces – improved skill, truer bounce, multiple fixtures
4. Improved camera technology eg. Hawkeye
5. On-screen information/interaction eg shots on target

➤ ***Advantages of technology on performers:-***

1. Increased knowledge of diet, e.g. carbo-loading
2. Supplementation e.g. creatine
3. Faster rehabilitation e.g. O2 tents, hypobaric chambers, ice baths
4. Improved testing to provide feedback on effectiveness of training programmes
5. Improved analysis of performance, e.g. match analysis, GPS data
6. Advances in stress management techniques
7. Equipment designed for individual needs
8. Facilities to recreate environments, e.g. Humidity chambers
9. Instant feedback on performance, e.g. heart rate monitors
10. Advanced clothing/equipment design, e.g. lycra suits/prosthetics

➤ ***Benefit of technology for coaches:-***

1. Video analysis of matches to highlight strengths/weaknesses and or tactics/strategies
2. Video analysis of technique – dartfish
3. Detail analysis of success of nutrition/training programmes
4. New training techniques/equipment to improve performance
5. Specific/detailed recording of performances/split times

➤ ***Disadvantages of technology:-***

1. Could lead to increased injury or violence/shorter careers e.g. from bladed boots / use of rugby shoulder pads / players bigger / fitter / more powerful
2. May lead to cheating / violence e.g. drugs
3. Can disrupt or slow down 'game'. e.g. time taken for playback

4. Could be an unfair advantage / be expensive / be dependent on sponsor e.g. technology not equally available to all such as high tech bikes
5. Reduces traditional ethic or nature of sport / can lead to 'win at all costs' ethic. e.g. use of high tech equipment at junior or local level / TV or internet or modern media that has made sport a global 'product'

Technology to help officials for correct decisions:-**➤ Advantages**

- Ensure correct decisions are made/fair competition/less controversy/players more confident in decisions;
- Helps officials communicate with each other;
- Less pressure on official to make the final judgement/less post-match criticism;
- Timing/measurement accurate;
- Creates excitement in crowd waiting for decision/allows players to officially challenge decisions;

➤ Disadvantages

- Officials using technology can still be wrong/technology can't be used for everything/officials are an integral part of the sporting contest/over reliance on technology/lose respect of official's decision being final;
- Specific technology used must be accurate/high level of reliability; Changes the nature of the sport;
- Cost limits use of technology at events/not consistent for all players or spectators;
- Breaks in play can be disruptive for spectators if too long;

Conclusion:-

Sport is very important to most of the people in our society, which makes the conflict about technology even more passionate. Some think that technology leads to better decisions and accuracy but on the other side people find themselves angry with all that technology that destroys the real competition that should be about what humans can do, and replaces it with a competition of "who has the better technology". I think that up to a certain point technology helps to keep the game fair (in the case of offside decisions for example), but when it comes to the equipment the importance of technology should be limited. Technology has improved the accuracy, enjoyment and experiences of both athletes and spectators at sporting events.

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Role of Physiotherapist in Sports Performance

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Introduction:-

Physiotherapists focus on comparing, restoring and keeping physical feature and mobility. Athletes are usually shifting and pushing their limits. All this pressure and exhaustion can take a toll to your health. Many athletes suffer from pain whether or not it's from "put on and tear" or a sports associated damage. A physiotherapist can provide athletic injury control, consisting of acute care, treatment and rehabilitation and schooling to prevent further damage and ache.

In addition, being handled with the aid of a physiotherapist will ensure which you are being dealt with in particular toward the form of game you play. Every game is exclusive making remedy and rehabilitation unique too! For instance, in track and area, rehabilitation can be included into schooling and might make certain that the athlete returns to competitions faster. Some common situations that runners suffer from encompass shin splits, planar fasciitis, Achilles tendonitis and anterior knee ache.

The pain and aches of training are one of the many challenges competitive athletes can overcome via physiotherapy. However, you don't have to be an athlete to advantage from this powerful form of remedy. Whether you have been inactive for some time and looking to get lower back into form or decided to obtain the impossible, physiotherapy will assist you in acquiring your goals.

How Physiotherapist can help in Sports performance:-

The most common sporting injuries are to the head, shoulders, hamstrings, knees and ankles. Most sports injuries are easily preventable, which is where a physio comes in. They can help you rehabilitate from an injury, show you how to prevent one occurring or work with you to improve your sporting performance.

➤ Injury prevention:-

Feel like you're waiting for an injury to happen? Take the proactive approach and see a physio for injury prevention advice and techniques.

Your physio can help with:

- Identifying any previous injuries that have not healed.
- Teaching correct techniques for warming up and stretching.
- Prescribing an injury prevention programme specifically tailored to you and your sport.
- Giving you a biomechanical screening assessment.
- Prescribing an individual exercise programme to correct any muscle imbalances and improve your movement patterns.

➤ Injury rehabilitation and management:-

Your physio can conduct a thorough assessment to get an accurate diagnosis and will design a treatment and management programme that's just right for you and your sport.

Your physio can help with:

- Pain management
- Postural education
- Joint mobilisation and manipulation
- Specific rehabilitation exercises
- Strapping and taping
- Developing a programme for a safe return to training, or modifying your training to suit.
- Referring you to a specialist if your injury needs further investigation.

➤ Sports performance:-

A physio can help with a screening assessment and an individual performance plan to address any weak areas.

Your physio can help with:

- Sport specific conditioning to meet your goals
- Home and gym-based strength and flexibility training

- Exercises to improve your efficiency of movement patterns
- Core stability programmes (such as pilates)
- Improving your breathing control
- Biomechanical screening assessment to identify any faulty movement patterns that may be impacting on your performance.
- Many physios also offer video analysis of your activity and movements.

Conclusion:-

Treatments for athletes can consist of motion manipulate, exercising practical rehabilitation and mobilizations. Pushing your body to its limits places a variety of pressure and pressure to your muscles and joints. To prevent damage and ensure you're at top bodily form in competitions, normal visits to a physiotherapist are essential. An athletes' frame is sort of a properly-used device, it runs it's pleasant whilst maintained nicely.

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Career Opportunities In Sports Management

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Introduction:-

Sports control is a large and fantastically aggressive discipline that includes elements of many exclusive areas, which includes commercial enterprise, advertising and accounting. Public hobby in fitness, fitness and spectator sports has additionally increased over time, making sports control a multibillion-dollar industry with an expansion of activity possibilities for people with enjoy and education. Those who work in sports control can also find themselves acting diverse features, together with operating with the budget of an athletic employer or developing advertising and marketing techniques. Professionals in sports activities management would possibly paintings on international wearing activities or nearby, amateur ones. Other areas in sports activities management include university or recreational sports activities management or sports economics.

Sport management is the field of business dealing with sports and recreation. Some examples of recreation managers include the front office machine in expert sports activities, college sports activities managers, recreational sport managers, sports activities advertising, event management, facility control, sports economics, sport finance, and sports statistics.

Sport management involves any combination of abilities associated with making plans, organizing, directing, controlling, budgeting, main, and comparing within the context of an agency or branch whose primary product or service is related to sport or physical pastime. Sport managers perform those skills in a ramification of organizational settings, as an instance: university sports; expert sports activities; novice sports which include the Olympics, sport marketing and control corporations; recreation communications and information media companies; corporate sponsorship and advertising corporations; sporting goods corporations; arenas, stadium, and civic centres; among many others.

➤ **Career Opportunities:-**

Job opportunities may exist working for academic institutions, professional sports teams, sports associations or in consulting. The following are some additional career fields that graduates with a sports management degree may consider.

- Public Relations
- Facility Management
- Fund Raising
- Broadcasting
- Sporting Goods Sales
- Sports Agency
- Promotion And Development Administration
- Sports Information Management
- Interscholastic Athletic Administration

Reasons to Consider a Career in Sports Management:-

Careers in sports management offer lots of exhilaration and superb salaries, but that's not all that's to like about this career course. If you're a brand new scholar or are seeking out a profession trade, sports management may provide extra than you know. Here are five tremendous motives to don't forget pursuing a career on this growing location.

- Enjoy Diverse Career Opportunities
- Make an Impact on Your Community
- Passion into a Career
- Work with High-Profile Clients
- Gain Skills That Impress inside the Business World

Conclusion:-

At cutting-edge high degree of sports activities achievements inside the world, and the application of sports technology and generation, greater interest is paid to human aid management in

recreation and commercial enterprise positions in sports businesses. Better sports effects done in latest years in numerous sports activities, to a big volume changed the notion and person of the sport and set new necessities for solving the present day assignment on an fundamental basis. Origin, improvement and speedy adjustments in sports activities-technology and commercial enterprise-manipulate function of modern-day sports agencies are absolutely in the international today is one of the maximum crucial incentives alternate sports and enterprise features, and philosophy, and the turning of man to his information and creative and creative potential, because the most sizeable production and development resources.

It may be very crucial good enough education of personnel in sports administration o keep pace with the improvement of facts technology and how to get the maximum from the progress that we permit new technologies. With the appearance and improvement of statistics generation in our united states at domestic and overseas are increasingly the question is competence sports management to adequately and nicely perform their jobs and the way to store time and resources of their company. Most of the sports business enterprise accepting the progress of recent generation getting to know, expand and undertake new techniques to be able to assist them improve their services and products and produce them toward their clients. To acquire the best high-quality in the sport, it is essential to create, alter, prepare, and constantly to put in force an ongoing and very last instruction of elite athletes, and alongside that, paintings on locating the maximum suitable organizational bureaucracy, techniques and content of labour in making ready elite athletes for the highest-stage representative wearing achievements. Contemporary arts organization in modern dynamic environment characterized with the aid of common changes and several competitors cannot continue to exist without control.

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Management In Sports

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Introduction :-

Management in recreation businesses provide sports improvement, trendy making plans activities within the subject of sports, organizes all applicable sources, procedures and capabilities, exercised a coverage of human sources improvement, organized sports and business features, provide communication and coordination, deciding on the implementation of maximum suitable solutions, procedures and controls put off destructive war. Management and sports advertising are one of the maximum critical, additionally the maximum complicated sports, which make certain that game and business capabilities finished in the more rational, reasonably-priced and efficient manner. Marketing organizations in the sport today aren't simplest involved within the negotiations, advertising and underwriting, but also offer many different services. Some of the key factors for achievement and competitive benefit each in control, advertising and sports activities, and in fashionable are exceptional, owning and dealing with records, to hit upon and reply to modifications in environment, application of latest technological tendencies, improvement of vintage and acquisition of recent know-how.

Sports management as a skill and unstructured experience of talented managers of character athletes, groups and clubs emerged with the arrival of the first expert sports activities organization. The appearance of a scientific, scientific expertise of recreation control is linked to the increase of professionalization of game and its submission to the laws of marketplace economic system and the emergence of management science, first in the income area, corporate commercial enterprise and then it's spreading to the sector of non-profit public and private sector.

What is sport management ?

Sport management is an critical a part of our lifestyle and is a tremendous a part of the leisure offerings region. Sport control may be defined as "any aggregate of skills related to making plans, organizing, controlling, budgeting, leading and comparing in the context of an business enterprise, whose primary product is related to game and/or bodily pastime". Sport is prepared, promoted and managed via a vast spectrum of formal organizations inclusive of now not-for-profit community-based totally voluntary institutions, provincial and national groups as well as the private and industrial (for-profit) sectors. Volunteers are an essential a part of the sport shipping system and fulfil many jobs (e.G., board/committee positions, education, officers).

Sports control is definitely defined as "any combination of capabilities related to making plans, organizing, controlling, budgeting, main and evaluating inside the context of an employer, whose primary product is associated with sport and/or bodily activity".

Concept Of Sports Management :-

Sports management is the utility of control science to the advent and development of carrying events. In current years, sports control has emerged as a discipline of schooling and vocation regarding the enterprise aspects of sports. It has come to be a degree software that many don't forget to be the ultimate manner to revel in their career. The achievement or failure of any sports software depends on how it's miles planned, carried out, evaluated, and corrected. No application may be assured of fulfilment in all locations always even if accomplished through the substances resources, manpower and method used.

Objectives Of Sports Management :-

- To imbibe within the hearts and minds of the students that game is a robust aspect in making someone mentally alert, bodily healthful and emotionally solid. A sport is likewise a completely important social asset.
- To create awareness among instructors, coaches, trainers, and sports officials that mind-blowing sports activities management brings about success that has exquisite effect on the scholars. Athletes' hobby, involvement and overall performance, in addition to person managers and officials.

- To in addition elevates the repute of sports within the place and to make a contribution to the realization of the country wide objective.

Conclusion :-

Sports control may be visible as the general management of different varieties of managements affecting sports. It is an exhaustive concept. Sports are developing at a better pace than ever and so is commercialization. In order to healthy or supersede those boom prices, efficient sports activities control is to be ensured. In the present day context, sports activities control may be taken to better tiers if all the stakeholders work in consonance with every different. The growth of sports activities organizations globally displays the importance of sports activities enterprise in today's international. Some sports activities groups have even been traded on inventory exchanges. As mentioned above distinct sets of people have one-of-a-kind roles to play even as dealing with a crew. The co-ordination of those human beings maintaining in thoughts new technology and improvements is the way sports activities control will circulate ahead.

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Sports Physiotherapy & Exercise

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Introduction:-

Sports & exercise physiotherapists are involved in prevention and management of injury resulting from sport and exercise participation at all ages and levels of ability. Sports & exercise physiotherapists provide advice on safe participation, promoting an active lifestyle to help all individuals improve and maintain their quality of life. Sports & exercise physiotherapists also have a role in helping those involved in sport and recreational activity to enhance their performance.

Living with an extended-time period condition may be hard. Understanding what you may do to assist your self could make it less difficult to cope. There are many simple things you could do to make existence less difficult, which include normal exercising. This leaflet will help you get began with the aid of supplying you with some examples of suitable sporting activities for the joints most usually affected by psoriatic arthritis. It also tries to answer some common questions about exercising and physiotherapy.

Physiotherapy & Exercise:-

We all know that your physiotherapist is an expert in the prescription of exercise appropriate to you and your injury or fitness level.

As a part of their physiotherapy training, your physiotherapist not only is educated in injury diagnosis but also in exercise physiology or the science of exercise. This enables your physiotherapist to not only assess and diagnose your injury but also to prescribe injury, fitness or age-appropriate exercises targeted to you at that point in time.

Why need to I exercising?

Psoriatic arthritis can result in pain, swelling and stiffness in joints. You can save you stiffness in a joint by means of putting it thru a full range of motion on a everyday foundation. Regular workout can also assist maintain power within the muscular tissues, which makes everyday tasks easier and will let you to keep desirable posture. It has additionally been proven to reduce stress and enhance temper, preserve bone density and reduce fatigue. So it's far crucial to have an exercise programme you perform on a every day basis to ensure you remain as in shape and healthful as viable.

What Exercises Should You Do?

It is important that your exercises should not be painful. While some personal trainers believe that the more painful the better, this is not the best for your body or injury.

In fact, research does inform us that pain inhibits muscles from performing to their optimum. This argues the case that painful exercise is actually counter-productive.

You'll find that your physiotherapist will thoroughly examine you and prescribe a series of exercises suitable for you in quantities that will not injure you further. Please seek an exercise expert, such as your physiotherapist, when you are planning your rehabilitation.

What takes place if it hurts?

You need to attempt to do a little exercising each day. On days whilst your joints are swollen or painful you ought to intention to move the affected joints via as notable a selection as you may, often throughout the day. Strength and cardiovascular exercise must be carried out at the least three times per week however might also want to be changed if a joint is painful. For instance, you could choose to go swimming instead of take a walk in case your knees or ankles are painful.

Exercise can lead to some discomfort. Strengthening exercises may additionally once in a while cause muscle pain, stretching exercises to joint ache, however neither ought to deliver upward thrust to acute pain. If exercise ends in swelling or sharp ache, forestall and make certain you are doing the workout correctly. If pain lasts longer than multiple hours you may be running too hard – slow down or lessen your repetitions. It can be hard to get began with an exercise programme. If you're unsure ask for advice out of your doctor or a physiotherapist.

What Happens When You Stop Exercises?

Without some simple exercises, we know that certain muscles can become weak. When these supporting muscles are weak, your injured structures are inadequately supported and predispose

you to lingering symptoms or further injury. You can also over-activate adjacent muscles that may lead to further injury.

It is also important to understand that even if you are "in good shape," you may have important but weak localised or stability muscles. When you have an injury, you should perform specific exercises that specifically strengthen the muscles around your injury and the adjacent joints. Your physiotherapist will assess your muscle function and prescribe the right exercises specific for your needs.

The exercises prescribed will usually be relatively simple, and do not require any special weights equipment, and can be performed safely at home.

How do I start?

Everyone has special levels of health depending at the life-style they lead. Which joints does your arthritis have an effect on? Choose a ramification of physical games in an effort to paintings these joints. Consider what you could presently do and decide on what you would like so that you can do. You can then set yourself desires to paintings towards, as an example you could aim to take part in a nearby charity stroll, learn to swim or be able to stroll to the nearby keep.

How can I live motivated?

- Be realistic – set yourself achievable goals
- Keep a diary or schedule – record what exercises you have done and plan how you are going to progress them
- Join a class or exercise with someone else – recruit family or friends to help you stay on track
- Reward yourself from time to time – treat yourself if you reach a goal or complete a week without missing a day
- Make exercise fun where you can – try exercising to music or outside
- Try to work exercise into your daily routine

Conclusion:-

A sports & exercise physiotherapist is a regarded professional who demonstrates advanced abilities inside the promoting of secure bodily activity participation, provision of advice, and variation of rehabilitation and training interventions, for the functions of stopping injury, restoring most reliable characteristic, and contributing to the enhancement of sports performance, in athletes of every age and abilities, while ensuring a high popular of professional and ethical exercise.

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Effects of Psychological Factors on Sports Performance

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Introduction:-

Competition in sports and the general performance of athletes in various competitive activities results in increased stress among the athletes. This increased stress makes the athlete to react mentally and physically in a way that negatively affects the performance capabilities of the athletes. The athletes may tense, increase their heart beats, sweat all over as they agonize about the possible results of their performance. Such athletes find it difficult to focus on the mission ahead. This aspect has resulted in many coaches and trainers to take more interest in the subject of sports psychology, specifically in the aspect of competitive anxiety. The attention has centered on factors that affect performance in sports, physical activity and exercise and on skills athletes apply in competitive environment. Once the factors effecting performance are established, the skills required for succeeded in competitive environment are also taught to the athletes.

Athletes need to be aware of psychological factors in sport, the important role they play and how they contribute towards maintaining health and well being. Being aware of this will help ensure athletes training and performance is not affected. Performing at your peak requires physical fitness, skill related fitness and mental preparation. Here we will be looking at how the psychological factors can affect the sports performer.

Motivation:

This is important for any area you want to optimize your performance in. It is especially important in sports. Think about athletes who experience constant ups-and-downs, wins and losses. In their case, intrinsic motivation and love for what they do is usually what helps them recover after a bad pass, a terrible throw, or a much lower score than they were expecting.

Intrinsic Motivation:-

This is motivation from within us. It can be classified as our own personal desire to be the best. There are no other factors such as prize money, rewards or praise that motivate the athlete. He or she's only desire is to be the best, watch the clip and see how Forrest only runs because he 'likes running', there are no other motivating factors.

Extrinsic Motivation:-

This is the opposite of intrinsic motivation and means that an athlete is motivated to perform to receive prizes, trophies or praise from a coach. Sports performers need a balance between intrinsic and extrinsic motivation. Too many rewards can reduce intrinsic motivation which they need for long term success.

Anxiety:-

Anxiety is a negative emotional feeling that athletes can experience. It often occurs when their own personal arousal levels are too high, and the athlete starts to feel pressure from being in a situation, and starts to worry that they will fail.

Anxiety can also be divided into two different types; these are called state and trait anxiety.

State Anxiety is a type of anxiety that can occur when a performer is placed in a continuously changing situation. A sailor may become nervous at the start of a race waiting for the starting sequence to begin. The sailor can experience somatic and cognitive anxiety during this period, however anxiety reduces as the sailor hears the first gun as the sailor settles into the routine of the start.

Somatic anxiety is all about how the body reacts to the sports situation. The symptoms can range from increased heart rate and breathing rate to feeling physically sick.

Cognitive anxiety is the sailors or athletes general nervousness about the situation they are in and their ability to perform well as cognitive anxiety can reduce concentration levels.

Trait Anxiety relates to the characteristics which a sports performer has which makes them react in a certain way to certain situations.

Personality:-

Your personality can affect the type of sports you like and excel in. These are just general rules however; you may be an exception to the rule! Personalities are often described by how introverted or extroverted the individual is.

- **Introverted** people tend to be quiet and thoughtful
- **Extroverted** people are more loud and excitable

You can of course be somewhere in between these two extremes! Whether you are more of an introvert or extrovert can affect the type of sport you like to play.

Introverts tend to like sports which require:

- Concentration
- Precision
- Self-motivation
- Intricate skills
- Low arousal levels
- Individual performances
- For example, archery, golf and snooker

Extroverts prefer sports which are:

- Exciting
- Team sports
- Fast paced
- High arousal levels
- Large, simple motor skills
- Low concentration
- For example, rugby and boxing

Concentration:-

This is the mental quality to focus on the task in hand. If the athlete lacks concentration then their athletic abilities will not be effectively or efficiently applied to the task.

Conclusion:-

There are quite a few factors that can influence an athletes performance. Many are unique to the individual given the meaning, combination or emphasis placed upon them. Most often in Sport Psychology the same issues that are found in the general public are found in athletes, only amplified. Many athletes have a spotlight on them - Enhancing or increasing everyday pressures. Athletics and Sport have grown in importance and influence greatly over the last few decades. With that has come an increase in "pressure to perform" on athletes, especially at young levels. You often see athletes "burning out" at young ages due to lack of "fun/enjoyment." More often than not, you find young athletes being injured or chronically in pain due to over training or over specialization in a certain sport.

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Psychological Tricks for Improving Sports Performance**Dr. Anil Vaidya,**Director of Physical Education,
Late. Narayanrao A. Deshmukh
College, Chandur Bazar, Amravati.**Introduction:-**

Many sports not only require physical skills, but a strong mental game as well. Most coaches believe that sports are 90% mental and only 10% physical. Especially in sports where hundredths of a second or tenths of an inch separate the champions from the mediocre athletes, an extra edge can be extremely crucial. Hence, numerous athletes are turning towards mental imagery to take their game to the next level. Different uses of imagery in sport include: mental practice of specific performance skills, improving confidence and positive thinking, problem solving, controlling arousal and anxiety, performance review and analysis, preparation for performance, and maintaining mental freshness during injury (Porter & Foster, 1990). This article focuses on tools for improving confidence and staying motivated.

Being a professional athlete involves a high degree of emotional involvement. First, athletes have to identify and analyze their strengths and weaknesses. Then they can use personalized techniques to enhance performance and confidence. If they're not personalized, then they could be counterproductive.

The techniques that athletes use the most to enhance their performance are:

Attention Control: each inner and external attention. Internal interest is whilst an athlete focuses on things taking place in her personal frame (thoughts, internal talk, feelings, and moves). External attention is while an athlete specializes in things outdoor of her very own frame. Internal attention is when an athlete focuses on things happening in her own body (thoughts, internal dialogue, feelings, and movements). External attention is when an athlete focuses on things outside of her own body.

Setting Dreams: this enables athletes get an overall imaginative and prescient of the paintings they should do. They also can visualize what they have to acquire to get to their final desires.

Self-instructions: those are messages or short affirmations that we tell ourselves to help with motivation or attention. It's vital to apply rational, superb, logical, and sensible affirmations.

Relaxation: a rest method is any method, system, or activity that facilitates reduce physical and/or mental tension. It is meant to lower stress and tension and replace them with peace.

Mental Illustration: intellectual representations are symbolic approaches of reproducing truth. Visualization is extremely effective for athletes and non-athletes alike.

Finally, it's critical to take into account that sports activities (specially excessive-degree sports) contain a whole lot of pain and suffering. And it's not just the ache that the exercise itself produces, but the whole thing that comes from it in a roundabout way too.

Mental Trick Will Make You A Better Athlete:-

The mental side of sports matters just as much as the physical. How many times do you see athletically gifted individuals flame out because they lack the will or drive to reach their potential? The will to win is the fundamental difference that separates athletes of similar ability. That's performance psychology. Here are some performance psychology tips to get you ready for your next competition.

- Stay Cool.
- Stay Fuelled.
- Stay Focused.
- Prepare.
- Set The Scene.
- Assess.
- Separate 'The Story' From 'The Phenomenon.'
- Break It Up.
- Tune In & Out.
- Be Your Own Cheerleader.

- Know That Better Is Yet To Come.
- Grin And Bear It.
- Stop.
- Stand Tall.
- Role Play.

Conclusion:-

In the fitness world it is generally thought by many that in order to perform well in events, one needs to train properly in order to do well. This is true however, what some might not be aware of are the psychological techniques that many professional athletes use in order to enhance their performance. Sports psychologists play an important part, specifically on this topic. Everyone at some point has seen a professional athlete go through a ritual or routine before their competitive sport/event begins, and there are reasons why they perform these actions.

Sports psychologists and professional athletes have for a long time hailed the benefits of mental training to improve performance. Research has shown that having self-belief, a high level of concentration and self-control can vastly improve the abilities of even the most successful athletes. In fact, not possessing these mental skills can be the difference between remaining an amateur and becoming a professional.

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Performance Evaluation Tests In Physical Education & Sports

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Introduction:-

Competition is the final check of overall performance capability, and is consequently the satisfactory indication of education achievement. However, whilst seeking to maximize performance, it's miles critical to decide the person's potential in specific factors of overall performance. Fitness evaluation tries to degree man or woman components of overall performance, with the last intention of studying and maximizing the Individuals ability in every element.

Competition evaluation Following competition, it's miles important that the teach and athlete get collectively as quickly as possible so as to examine the athlete's overall performance. Elements to be considered are pre race preparations, cognizance and overall performance plans and achievement of those plans. An evaluation shape is useful to assist the athlete and coach behavior this assessment.

Sport Performance Tests:-

The Sport Specific Performance Tests page presents steering on possible exams to assess the athlete's health additives for a diffusion of sports activities.

Normative statistics:-

Where normative statistics (average check outcomes) is to be had, it's far included on the correct evaluation test pages which are diagnosed below.

Maximal Tests:-

Maximal method the athlete works at maximum attempt or tested to exhaustion. Examples of maximal anaerobic exams are the 30 metre acceleration check and the Wingate ANaerobic 30 cycle take a look at. Examples of maximal cardio assessments are the Multistage Fitness Test or Bleep test and the Cooper VO₂max test.

Sub maximal Tests:-

Sub maximal approach the athlete works underneath maximum effort. In sub maximal checks, extrapolation is used to estimate most potential. Examples of sub maximal aerobic take a look at are the PWC-170 take a look at and the Queens College Step Test.

Evaluation Test Groups:-

The performance evaluation tests are grouped as follows:

- Fitness General
- Flexibility
- Psychology
- Reaction Time
- Strength - Core
- Strength – Elastic
- Strength – General
- Speed and Power
- Aerobic Endurance - VO₂ max
- Anaerobic Endurance
- Agility
- Balance
- Body Composition
- Coordination
- Event Time Predictors

Fitness General:-

- Medicine Ball Javelin Quadrathlon - fitness and strength test for Javelin throwers
- McCloy Physical Fitness test
- Quadrathlon - an excellent all round test - originally devised for throwers
- WilfPaish Rugby Football Tests - suitable for Rugby, USA Football

Flexibility:-

- Hip Flexion Test

- Modified Sit and Reach Test - lower back and hamstring test
- Sit and Reach test - lower back and hamstring test
- Static Flexibility Test - Ankle
- Static Flexibility Test - Hip & Trunk
- Static Flexibility Test - Shoulder & Wrist
- Static Flexibility Test - Trunk & Neck
- Static Flexibility Test - Shoulder
- Trunk Flexion Test

Psychology:-

- SCAT - Sport Competition Anxiety Test
- TEOSQ - Task and Ego Orientation in Sport Questionnaire
- Illinois Self Evaluation Questionnaire

Reaction Time:-

- Ruler Drop Test

Strength - Core:-

- Core muscle strength and stability test - Abdominals and lower back

Strength - Elastic:-

- Jumps Decathlon - suitable for jumpers
- Leg Elastic Strength test - suitable for jumpers
- Standing Long Jump test - suitable for sprinters, rugby, football, hockey, fencing etc.
- Sprint Bound Index - suitable for sprinters
- Sargent Jump Test or Vertical Jump Test - suitable for basketball, volleyball, football, rugby etc.

Strength - General:-

- Abdominal Curl Conditioning Test (NCF)
- Biceps Curl Test
- Burpee Test
- Canadian Crunch Test
- Chin up Test - Arm and shoulder muscular endurance
- Dynamic Knee Extension Test - Knee extensor muscles
- Flexed Arm-Hang Test
- Sit Ups test - Abdominal curl strength
- Curl-Up test - Abdominal muscle endurance
- Grip Strength - Grip strength with a Dynamometer
- Overhead Press Test - Elbow extensors and superior shoulder girdle muscles
- Press Up test - Upper body muscle endurance
- Strength test - upper body - Bench Press
- Strength test - lower body - Leg Press
- Strength test - hamstrings - Leg Curl
- Strength test - quadriceps - Leg Extension
- Squats Test
- Wall Squat Test - Quadriceps strength endurance

Speed and Power:-

- 10 stride test for 100m and 200m athletes
- 30 metre acceleration test for 100m and 200m athletes
- 30 metre Sprint Fatigue - Power Maintenance Test
- 35 metre Sprint Speed Test
- 40 metre multiple Sprint Test
- 40 yard Sprint Speed Test- predict an athlete's 400 metre time
- 60 metre speed test for 100m and 200m athletes
- 150 metre Endurance test for 100m athletes
- 250 metre Endurance test for 200m athletes
- 300 yard shuttle test - suitable for football, rugby, hockey, basketball, squash
- 400 metre Drop off test for 100m and 200m athletes
- 400 metre Control tests for 400m athletes
- Concept 2 Rowing Step test - Monitor anaerobic threshold

- Flying 30 metre speed test for 100m and 200m athletes
- LAS (Lactic vs Speed) test for 400m athletes
- MargariaKalamen Power Test
- PWC-170 test- predicts power output at a heart rate of 170 bpm
- Wingate Anaerobic 30 cycle test- Cycling based Anaerobic test.

Aerobic Endurance - VO2 max:-

- 2.4km Run Test
- Astrand Treadmill test - VO2max test running on a treadmill
- Astrand 6 minute Cycle test - Vo2 max test on a static bike
- Balke VO2max test - suitable for endurance sports
- Balke Incremental treadmill protocol test- VO2max test on a treadmill (male and female tests)
- Bruce Incremental treadmill protocol test- VO2max test on a treadmill (male and female tests)
- Cooper VO2max test - suitable for endurance sports
- Conconi test
- Critical Swim Speed - measure of a swimmers aerobic capacity
- Home Step Test - a step test you can conduct at home
- Harvard Step Test - measure of cardiovascular fitness
- Multistage Fitness Test or Bleep test - VO2 max test for endurance sports
- Queens College Step Test - VO2 max test
- Rockport Fitness walking test - VO2 max test
- Tecumseh Step Test - measure of cardiovascular fitness
- Treadmill VO2max test - VO2 max test
- VO2max from non-exercise data - VO2 max test
- VO2max from a one mile jog
- VO2max Step Test
- Wheelchair VO2max Test

Anaerobic Endurance:-

- Cunningham and Faulkner Test
- RAST - Running-based Anaerobic Sprint Test

Agility:-

- 505 Agility Test
- Hexagonal Obstacle Agility Test
- Illinois agility run test
- 'L' Test
- Lateral Change of Direction test
- Quick Feet test
- Shuttle Run Test
- 'T' Drill test
- Zig-Zag Test

Balance:-

- Standing Stork Test - balance test
- Standing Stork Test Blind - balance test

Body Composition:-

- Body Fat Percentage
- Body Mass Index (BMI)
- Muscle Fibre Test - Dr F. Hatfield
- Yuhasz skinfold test
- Body Fat Percentage using Girth Measurements
- Waist to Hip Ratio test

Coordination:-

- Hand Eye coordination

Event Time Predictors:-

- 400 metre predictor test - predicts an athlete's potential 400 metre time
- 1500 metre predictor test - predict an athlete's potential 1500 metre time
- 5km predictor test - predict an athlete's potential 5km time
- Kosmin predictor test - predict an athlete's potential 800 metre and 1500 metre time

Conclusion:-

Fitness checking out is a way of gaining records approximately the fitness associated and ability associated additives of an athlete's health. Testing can take region in some of environments, with laboratory checking out being the maximum correct; however there may be still a large range of tests that can be finished, away from a lab, which provide numerous useful data.

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Mental Strength Training For Sports Person

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Introduction:-

Mental strength training concentrates specially on helping athletes to break via the intellectual obstacles that keep them from performing as much as their peak capacity and by way of teaching mental abilities for success. By focusing on the intellectual strategies needed to achieve success in any opposition, mental strength training seeks to obtain the overall purpose of overall performance development and enhancing consistency in performance.

Mental training is a warm subject matter within the field of sports psychology and many athletes – inclusive of runners, climbers, and crew sports players – use mental training to reinforce their composure, recognition, and capability to react fast. It isn't simply athletes who can advantage from intellectual training even though. Improving intellectual sturdiness helps human beings cope with stresses and overcome barriers.

The aim of mental strength training is to help athletes and teams carry out their pleasant through enhancing the vital mental abilities to excel in their specific sport. Mental energy training is not about running with trouble athletes or ordinary behaviour.

Mental Strength Training for Athletes is ready enhancing your mind-set and intellectual recreation skills to help you perform your fine by way of figuring out restricting beliefs and embracing a healthier philosophy approximately your recreation.

Benefits from Mental Strength Training for Sports Person:-

- **To become aware of and input the sector greater regularly.** This contains everything I do inside the intellectual facet of sports activities. The basic intention is to help athletes enter the sector by using growing foundational mental competencies which can assist athletes input the zone greater frequently. It's not possible to play within the sector every day, but you could set the conditions for it to appear greater often.
- **Help teams expand communication capabilities and brotherly love.** A foremost part of mental electricity training and intellectual education is helping groups improve brotherly love and verbal exchange. The more a team works as a unit, the better the outcomes for all concerned.
- **Develop coping skills to cope with setbacks and mistakes.** Emotional control is a prerequisite to getting into the quarter. Athletes with very excessive and strict expectations, have problem managing minor mistakes which can be a herbal a part of sports activities. It's critical to deal with these expectations and also help athletes stay composed beneath stress and when they commit mistakes or emerge as annoyed.
- **Improve or stability motivation for finest overall performance.** It's essential to observe your level of motivation and just why you're prompted to play your recreation. Some motivators are better inside the lengthy-time period than others. Athletes who are extrinsically or externally influenced often play for the incorrect reasons, along with the athlete who handiest participates in sports because of a discerns desire. I paintings with athlete to help them adapt a healthful stage of motivation and be prompted for the proper motives.
- **Improve recognition and address distractions.** Many athletes have the ability to pay attention, but frequently their awareness is displaced on the incorrect regions along with when a batter thinks "I want to get a hit" while within the batter's box, which is an end result-oriented focus. Much of my coaching on recognition offers with helping athlete to live focused within the present moment and allow go of outcomes.
- **Develop self belief submit-harm.** Some athletes find themselves absolutely prepared bodily to get returned into opposition and practice, but mentally some scars stay. Injury can harm self belief, generate doubt at some stage in opposition, and motive a loss of focus. I help athletes mentally heal from accidents and deal with the fear of re-injury.

- **Grow self belief in athletes who have doubts.** Doubt is the other of confidence. If you maintain many doubts previous to or during your performance, this shows low self-self belief or as a minimum you are sabotaging what self belief you had on the begin of the opposition. Confidence is what I name a core intellectual game talent due to its importance and courting to different intellectual abilities.
- **Find the proper zone of depth to your sport.** I use depth in a large sense to identify the level of intensity or activation that is necessary for all people to carry out his or her exceptional. This will range from man or woman to person and from game to sport. Feeling “up” and undoubtedly charged is vital, but now not getting overly excited is also vital. You need to find the balance between being excited to complete, yet now not getting over-excited or worrying.
- **To instill a healthful belief gadget and perceive irrational mind.** One of the areas I delight myself on is assisting athlete identify ineffective beliefs and attitudes including comfort zones and bad self-labels that hold them again from acting well. These bad beliefs ought to be recognized and replaced with a brand new way of thinking. Unhealthy or irrational ideals will preserve you caught regardless of how a lot you exercise or hard you strive.
- **To expand recreation-specific techniques and sport plans.** All superb coaches employ recreation plans, race strategies, and path control capabilities to help athletes mentally put together for competition. This is a place past growing simple intellectual competencies wherein a mental instruct facilitates athletes and groups. This may be very critical in sports inclusive of golf, racing, and lots of group sports activities.

Conclusion:-

Mental strength education lends itself nicely to a philosophy geared toward athletes’ growth and development – physical, mental, social, moral and emotional. In reality, mental energy training is education in existence abilities like; how to set desires, how to take care of pressure, a way to manage criticism and the way to stay centered on the undertaking at hand.

Many athletes and coaches are careworn about the function of intellectual strength training in enhancing athletic overall performance. Mental electricity education is a part of the larger area of game technology and studies human behaviour in the game surroundings and the benefits of intellectual education on improving sports overall performance.

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Psychological Tips For Mental Training

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Introduction:-

Many sports activities not only require bodily capabilities, but a sturdy mental sport as properly. Most coaches accept as true with that sports are ninety percentages intellectual and only ten percentages physical. Especially in sports wherein hundredths of a second or tenths of an inch separate the champions from the mediocre athletes, an additional edge may be extremely critical. Hence, numerous athletes are turning towards intellectual imagery to take their game to the following degree. Different uses of images in game encompass: mental exercise of particular performance abilities, improving self belief and advantageous thinking, trouble solving, controlling arousal and tension, performance evaluation and evaluation, practise for performance, and keeping intellectual freshness in the course of injury.

Even the best aggressive athletes once in a while find themselves struggling with terrible attitudes, or becoming too targeted on bodily pain at some stage in training or racing. They attempt, like the rest of us, to maintain shifting ahead no matter the terrible beliefs and internal chatter that is going on inside the mind as they try to project their modern-day limits. Their distinguishing nice, but, is of their exceedingly delicate ability at handling and controlling that energy. Top competition have developed this capacity to relax, to stay tremendous and centered even under super strain and bodily challenge.

Mental training is a warm subject matter in the area of sports activities psychology and many athletes – inclusive of runners, climbers, and group sports players – use mental schooling to boost their composure, consciousness, and capacity to react speedy. It isn't just athletes who can advantage from intellectual training though. Improving "mental sturdiness" allows human beings address stresses and conquer obstacles. Here are some tips to help you build new motivation, confidence and major breakthroughs in your fitness, your schooling and in your life.

- **Power Words:** Make positive self-statements continually. Negative thinking is not unusual; each person has an inner critic. Become privy to those thoughts early on. Don't fight with them; genuinely renowned their presence, after which substitute high quality power words.
- **Body Scan:** Pay close interest in your tension stage and training form. Do a frame scan whilst operating out and relax your tight muscle mass regularly. Ask yourself: "Are my shoulders and neck relaxed; how does this pace feel; how a whole lot energy is left in my legs?"
- **Present Focus:** Practice being within the present moment. Remind yourself to live in the right here and now. Instead of replaying past mistakes, or stressful about the future, let beyond and destiny activities fade into the history. Be proper on, proper here, proper now.
- **Advantage:** Use everything in your exercising for your advantage. For instance, if some other man or woman passes you, tuck in at the back of and go along with his or her power for as long as possible. You can also catch a "second wind" and be carried directly to a non-public report.
- **Chunking Goals:** Focus for your instantaneous target. Break your training dreams down into small, workable portions and begin to awareness only on the first element, no longer the whole exercising.
- **Focused Attention:** Be privy to distractions. Breathe out unwanted mind along with your next exhale and re-consciousness your interest immediately on what's vital right now, at this moment.
- **Celebration:** Enjoy and recognize your health and electricity. When you exercise, loosen up and permit your body do what you've educated it to do. Remember that your desires are realistic. All you need to do is carry out up for your capabilities.
- **Positive Images:** When you are exercising, use your nice intellectual photos at some stage in your exercise to create emotions of velocity and strength. Use visualization earlier than, at some stage in and after your schooling to build confidence and new motivation.

- **Pain as Effort:** If you have “excellent ache,” the ache of attempt, that isn't seriously unfavourable, your frame, just shift attention to your breathing or cadence of motion, and allow the pain fade into the background. You can also use the pain as feedback. Register it now not as pain but as attempt stage. Say: “Now I realize precisely how difficult I’m operating. I realize how this pace feels. My body is doing what it ought to be doing.”
- **Detach From Outcome:** Look simplest at what you want to do proper now.

Conclusion:-

Psychology often discusses intellectual fitness, however what’s no longer regularly mentioned is a clear definition of mental strength. To me, mental electricity way that you adjust your feelings, manipulate your thoughts, and behave in a fantastic way, notwithstanding your instances. Developing mental power is set locating the courage to stay in line with your values and being bold sufficient to create your personal definition of achievement.

Mental electricity involves extra than just self-control; it calls for tough paintings and commitment. It’s about setting up healthful habits and choosing to commit it slow and electricity to self-development. Although it’s simpler to feel mentally strong whilst life seems easy, often, real mental electricity will become most apparent within the midst of tragedy. Choosing to increase abilities that boom your intellectual strength is the first-class manner to prepare for existence’s inevitable boundaries.

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Before, During & After Match Sports Nutrition Diet

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Introduction:-

There's nothing just like the concern of vitamins to stir debate. It seems like the experts change their minds almost day by day about what we should and should not devour. In fact, medical nutrition hasn't modified lots at all in the ultimate fifteen years.

Fortunately, scientific sports activities vitamins is a bit less contested. There are some very well-researched, well-practiced nutritional techniques that have been used by athletes for decades. They are applicable to maximum sports. In truth, they are greater than relevant - they are a pre-considered necessary to top performance.

Long gone are the days while athletes concept that ingesting a huge steak before a sport might provide them plenty of energy. Today's elite sports women and men comply with a strict food plan, specifically on the day of a competitive match or occasion. While weight loss plan may not flip terrible athletes into incredible ones, it may make the distinction among appearing poorly and tapping your complete potential.

The Glycemic Index:-

Not all carbohydrate is digested and absorbed on the same price. The Glycemic Index (GI) is a scale of how lots a specific sort of meals raises blood sugar over hour duration compared to pure glucose.

Choosing ingredients with a high GI will help to speedy top off carbohydrate shops after a game or event. Before a recreation or occasion, low GI foods are greater appropriate as they release energy greater slowly and for a longer period.

Sports Nutrition Three-four hours earlier than the Match:-

Have your athlete eat a wholesome part of carbohydrate-rich meals consisting of rice, beans, pasta, or potatoes. If your athlete is at school for the duration of these hours and wishes an on-the-cross option, try packing a few granola made with old style oats or entire wheat bread with peanut butter or cheese. The aim here is to ensure that the meal has time to digest but that your toddler isn't hungry at some point of the sport.

Make positive that your toddler is drinking water during the day and leading up to the game or exercise. Try giving him water with every meal after which sixteen ounces two hours earlier than exercise and eight-16 oz 15 mins before the hobby.

Before Match Sports Nutrition:-

Encourage your athlete to consume every other carb snack which include whole fruit. Bananas, berries, or apples are an awesome choice. Fruit digests easily, so it shouldn't motive any belly disenchanted and have to preserve your toddler from getting hungry at some stage in the game. It's quality to avoid processed sugary snacks, as they can lead to an disenchanted stomach. Also, consuming processed sugar can motive modifications in blood sugar and insulin, which could bring about fatigue and terrible overall performance.

During the Match Sports Nutrition:-

It's crucial to your infant to live hydrated to avoid dehydration and cramping and to help with overall performance. Your infant need to drink water each 15-20 minutes in the course of the interest whilst it will last less than one hour. When collaborating in a energetic sporting event lasting longer than an hour, it's far ok for your infant to update the water with a sports activities drink each 15-20 minutes. This will keep the blood sugar at an awesome level and could replace the misplaced electrolytes. Please remember that sports activities beverages are meant to be fed on for the duration of or after full of life exercising and are not meant for regular consumption.

After Match Sports Nutrition:-

Within an hour after the game, kids have to enjoy some other snack inclusive of fruit, or if it's available, chocolate milk. Because chocolate milk has a four-to-1 ratio of carbohydrates to protein, it's the right combination to help with put up-recreation muscle healing. Good post-recreation

nutrients no longer most effective helps younger athletes sense higher after opposition, however allows their our bodies recover and prepare for the subsequent time they're out on the field.

Carbohydrate Loading:-

Carbohydrate loading is regularly used by long distance athletes to percentage their muscle mass with power. The actual process involves depleting the muscle groups of carbohydrate per week or so before the occasion with exhaustive exercise and a low-carbohydrate eating regimen.

Two to three days earlier than the occasion the athlete switches to a completely high-carbohydrate food regimen. In their depleted nation, muscles absorb greater carbohydrate than they commonly could give the athlete a big store of strength.

For maximum sports and events, carbohydrate loading makes no sense. In fact a disruption in an athlete's normal consuming sample can actually purpose stomach disappointed and result in impaired overall performance. A more practical approach is to increase carbohydrate intake inside the days leading up to a recreation or occasion.

Conclusion:-

Nutrition is a crucial factor in determining top-quality sports performance. An inadequate food plan can save you from reaching your authentic capacity. Healthy nutrition is not only important for sports performance, but for healthy bones too. A well balanced diet usually contains enough calcium and vitamin D to maintain strong bones. When kids and teens have repeated injuries, calcium or vitamin D deficiency can play a role. In fact, stress fractures (a fracture that occurs without a traumatic injury) can be caused by inadequate calcium intake.

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Health Education As A Profession

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Introduction:-

Health education, one of the regions of physical training is the profession of teaching humans approximately fitness. Areas within this profession embody environmental health, bodily health, social fitness, emotional fitness, highbrow fitness, and religious health. It can be described because the principle by way of which people and agencies of human beings learn how to behave in a way conducive to the advertising, preservation, or healing of fitness (Health is the level of purposeful or metabolic efficiency of a dwelling being. In humans, it's miles the overall circumstance of someone's mind and frame, commonly that means to be free from infection, harm or ache).

However, as there are a couple of definitions of health, there also are more than one definitions of health education. The Joint Committee on Health Education and Promotion Terminology of 2001 defined Health Education as "any mixture of deliberate getting to know reviews primarily based on sound theories that provide individuals, organizations, and communities the possibility to acquire facts and the abilities needed to make exceptional health selections."

Health Education Areas of responsibilities:-

1. Assessing Individual and Community Needs for Health Education
 - Provides the foundation for program planning
 - Determines what health problems might exist in any given group
 - Includes determination of community resources available to address the problem
 - Community Empowerment encourages the population to take ownership of their health problems
 - Includes careful data collection and analysis
2. Plan Health Education Strategies, Interventions, and Programs
 - Actions are based on the needs assessment done for the community
 - Involves the development of goals and objectives which are specific and measurable
 - Interventions are developed that will meet the goals and objectives
 - According to Rule of Sufficiency, strategies are implemented which are sufficiently robust, effective enough, and have a reasonable chance of meeting stated objectives
3. Implement Health Education Strategies, Interventions, and Programs
 - Implementation is based on a thorough understanding of the priority population
 - Utilize a wide range of educational methods and techniques
4. Conduct Evaluation and Research Related to Health Education
 - Depending on the setting, utilize tests, surveys, observations, tracking epidemiological data, or other methods of data collection
 - Health Educators make use of research to improve their practice
5. Administer Health Education Strategies, Interventions, and Programs
 - Administration is generally a function of the more experienced practitioner
 - Involves facilitating cooperation among personnel, both within and between programs
6. Serve as a Health Education Resource Person
 - Involves skills to access needed resources, and establish effective consultive relationships
7. Communicate and Advocate for Health and Health Education
 - Translates scientific language into understandable information
 - Address diverse audience in diverse settings
 - Formulates and support rules, policies and legislation
 - Advocate for the profession of health education

Health Education Code of Ethics:-

The Health Education career is dedicated to excellence within the practice of promoting man or woman, circle of relatives, organizational, and network fitness. The Code of Ethics affords a framework of shared values inside which Health Education is practiced. The duty of every

Health Educator is to aspire to the highest possible requirements of behavior and to encourage the ethical conduct of all people with whom they paintings.

- Responsibility to the Public A Health Educator's remaining responsibility is to teach human beings for the reason of promoting, keeping, and improving man or woman, own family, and community fitness. When a warfare of problems arises amongst people, organizations, businesses, corporations, or establishments, health educators must recollect all issues and provide priority to people who promote well-being and first-rate of living through standards of self-determination and freedom of choice for the person.
- Responsibility to the Profession Health Educators are chargeable for their professional conduct, for the popularity in their career, and for selling ethical conduct among their colleagues.
- Responsibility to Employers Health Educators apprehend the bounds of their expert competence and are liable for their professional activities and moves.
- Responsibility in the Delivery of Health Education Health Educators promote integrity inside the shipping of health training. They recognize the rights, dignity, confidentiality, and really worth of anybody by means of adapting techniques and strategies to the desires of numerous populations and groups.
- Responsibility in Research and Evaluation Health Educators make contributions to the health of the populace and to the career thru research and evaluation sports. When making plans and carrying out studies or assessment, fitness educators achieve this in accordance with federal and nation legal guidelines and regulations, organizational and institutional rules, and expert standards.
- Responsibility in Professional Preparation Those concerned within the guidance and schooling of Health Educators have an responsibility to accord rookies the same respect and treatment given other groups by means of imparting best schooling that blessings the profession and the public.

Career Opportunities in Health Education:-

The terms Public Health Educator, Community Health Educator or Health Educator are all used interchangeable to explain an character who plans implements and evaluates health training and advertising applications. These people play a critical role in lots of groups in numerous settings to enhance our kingdom's health. Just as a Community health educator works paintings towards populace fitness, a faculty Health educator normally teaches in our Schools. A community fitness educator is commonly centered on their on the spot community striving to serve the general public.

- Health Care Settings: those encompass hospitals (for-profit and public), hospital therapy clinics, and domestic fitness organizations. Here, a health educator teaches personnel a way to be healthful. Patient schooling positions are a long way and few among because coverage businesses do no longer cowl the costs.
- Public Health Agencies: are professional, tax funded, and authorities companies. They offer police safety, instructional systems, as well as easy air and water. Public health departments offer fitness offerings and are prepared by means of a metropolis, county, state, or federal government.
- School Health Education: includes all strategies, activities, and services presented via, in, or in affiliation with faculties which are designed to promote students' bodily, emotional, and social improvement. School health includes coaching students approximately health and fitness related behaviors. Curriculum and applications are primarily based at the faculty's expectations and health.
- Non Profit Voluntary Health Agencies: are created by involved citizens to address health desires no longer met through governmental companies. Missions consist of public schooling, professional schooling, patient schooling, studies, direct services and assist to or for human beings directly suffering from a selected fitness or medical hassle. Usually funded through such approach as private donations, offers, and fund-raisers.
- Higher Education: normally two varieties of positions fitness educators preserve which include educational, or school or fitness educator in a student health service or well-being middle. As a college member, the fitness educator normally has 3 foremost obligations: coaching, network and professional service, and scholarly research. As a health educator in a

college health service or well being center, the primary duty is to plan, enforce, and compare fitness promotion and schooling packages for application individuals.

- Work web page Health Promotion: is a mixture of educational, organizational and environmental activities designed to improve the fitness and safety of personnel and their households. These work web page health programs offer an additional putting for health educators and permit them to reach segments of the populace that are not effortlessly reached thru traditional community fitness programs. Some paintings website fitness promotion Some paintings web page fitness promoting sports consist of; smoking cessation, stress management, bulletin forums, newsletters, and plenty extra.
- Independent Consulting and Government Contracting: international, national, regional, sate, and neighborhood agencies contract with independent specialists for lots reasons. They may be employed to assess character and community wishes for fitness education; plan, enforce, administer and compare health education strategies; conduct studies; serve as health education aid man or woman; and or speak about and advocate for health and fitness training. Government contractors are often behind countrywide fitness training packages, authorities reviews, public records web sites and smartphone traces, media campaigns, meetings, and health schooling substances.

Conclusion:-

The health education profession has come to a essential factor in its improvement. If fitness training is to fulfill its promise as a worthwhile approach to improve fitness, the particular skills of health education specialists and, concomitantly, the instructional training that they need have to be absolutely described. In the beyond, no clean definition turned into feasible due to the diversity of preparatory programs, the absence of normally customary accreditation requirements, educators, inconsistent employment necessities, inadequate manpower facts, and poor mechanisms for quality assurance. Health educators are examining the various sorts of credentialing--accreditation, licensure, and certification--in an effort to their use as a means of strengthening the career's instruction and practice requirements.

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Stress Management Techniques for Athletes

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Introduction:-

Stress management refers to the environmental, physiological, cognitive, and behavioral techniques employed by an individual to manage the factors and components that underlie the stress process or experience of stress. A primary goal of stress management in sport is to allow the athlete to effectively regulate competition related demands to facilitate optimal performance as well as to enhance psychological well-being. There are numerous stress management techniques that can be classified into various heuristic categories. Many of these are covered in this entry. However, to understand why these techniques are effective under specific conditions, it is important first to understand the stress and emotion process.

Stress management techniques in recreation normally target somatic, behavioral, and/or cognitive affective signs of pressure. Somatic responses contain the athlete's physiological reactions, inclusive of changes in coronary heart charge (HR), respiratory (R), sweating, gastrointestinal functioning, muscular tension and manage, student dilation, urinary machine, and salivation. Behavioral responses are the direct movements taken due to the fact of the stress, which includes engagement or disengagement insure strategies or activities, as nicely as distraction. Finally, cognitive affective responses consist of the mind associated with the pressure, including worries, ideals, apprehensions, and bad expectations about performance in addition to motion plans to control pressure. Distinguishing among and being aware of each of these factors is essential for the athlete, train, and SP consultant, as this understanding facilitates to make certain the right strain control skills are applied.

Effective Stress management also wishes to understand the temporal thing of the pressure procedure. Stressful transactions in recreation frequently contain anticipation, disagreement (engagement), and post-engagement stages and can result in an athlete feeling crushed. Stress management strategies can goal precise tiers or aggregate of degrees.

Stress-management facts:-

- Stress is any physical, chemical, or emotional factor that causes bodily or mental unrest.
- While elimination of stress is unrealistic, management of stress is an attainable and realistic goal that can be achieved by a number of strategies.
- People with strong social support networks report less stress and fewer negative symptoms of stress than those who lack social support.
- Stress-management techniques include relaxation techniques, time-management skills, counseling or group therapy, exercise, and maintaining an overall healthy lifestyle.
- There are hundreds of different relaxation techniques to help manage stress, including yoga, guided imagery, biofeedback and progressive muscle relaxation.

Stress Management Techniques:-

Learning to cope with stress and anxiety are vital to an athlete who has to perform in high pressure situations. The ability to control these feelings of nervousness and apprehension are vital to perform at the top level. The following are methods of managing stress:

Physical Relaxation:-

- *Progressive Muscle Relaxation*: This involves the deliberate contraction of muscles followed by a greater relaxation
- *Self-Directed Relaxation*: Relies on the athletes ability to isolate and relax individual muscle groups. This can be improved through practice
- *Deep Breathing*: This has calming effects on the mind as well as physiological effects such as reducing heart rate
- *Biofeedback*: *Observing* physiological measurements such as heart rate and breathing rate allow the athlete to focus their attention on reducing these measures

- *Imagery* is the use of mental images and scenarios to help relax the mind. This can be either internal (seeing your performance from within your body) or external (viewing your performance as if you are someone or somewhere else). Imagery can be used to relax by picturing a favorite place or calming scene or to rehearse the up-coming performance. Mental rehearsal is thought to be effective on three levels:
- *Neuromuscular*: Thinking through a movement produces the correct order and force of muscular contraction, much like a dry-run
- *Cognitive*: Thinking through and planning an event in the mind can help the athlete to deal with scenarios as they arise
- *Confidence building*: The certainty in the athletes mind of what they are going to do during the event, game plans etc can help reduce anxiety and increase motivation
- *Goal Setting*: Goal setting is a highly useful and worthwhile technique.

Psychology Skills Training:-

Psychology skills training for the athlete should aim to improve their mental skills, such as self-confidence, motivation, the ability to relax under great pressure, and the ability to concentrate and usually has three phases:

- *Education phase*, during which athletes learn about the importance of psychological skills and how they affect performance
- *Acquisition phase*, during which athletes learn about the strategies and techniques to improve the specific psychological skills that they require
- *Practice phase*, during which athletes develop their psychological skills through repeated practice, simulations, and actual competition.

Some Other Stress Management Techniques :-

- Cognitive Restructuring
- Visualization
- Guided Relaxation
- Meditate/Breathe Deeply
- Organize Yourself.
- Control Your Environment by controlling who and what is surrounding you.
- Love Yourself by giving yourself positive feedback.
- Reward Yourself by planning leisure activities into your life.
- Exercise Your Body.
- Relax Yourself by taking your mind off your stress.
- Concentrating on breathing and positive thoughts.
- Rest Yourself as regularly as possible.
- Be Aware of Yourself.
- Feed Yourself / Do Not Poison Your Body.
- Enjoy Yourself.

Conclusion:-

Stress management techniques can include any intervention that can modify one or more components of the stress process. Stress management techniques need to be directed at individual needs and the issue at hand, as well as take into account the coping resources the athlete has available. As with the acquisition of any skill, application of stress management techniques requires training, time, and practice. Knowledge is not sufficient, as it does not guarantee an athlete can apply the necessary skills or program to his or her specific issue. Application and practice are necessary, and effort is needed on the part of the athlete to make gains in stress management ability.

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Psychological Factors that Affects Sports Performances

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Introduction:-

There are quite some elements which can have an impact on an athletes overall performance. Many are unique to the individual given the meaning, mixture or emphasis placed upon them. Most often in Sport Psychology the same troubles which can be found in the majority are discovered in athletes, best amplified. Many athletes have a highlight on them - Enhancing or increasing ordinary pressures. Athletics and Sport have grown in significance and affect substantially over the previous couple of a long time. With that has come an increase in "pressure to perform" on athletes, in particular at young ranges. You regularly see athletes "burning out" at young a while due to loss of "fun/leisure." More regularly than no longer, you locate young athletes being injured or chronically in ache due to over education or over specialization in a sure sport.

Competition in sports and the overall performance of athletes in numerous aggressive sports results in increased pressure most of the athletes. This elevated stress makes the athlete to react mentally and bodily in a manner that negatively affects the performance abilities of the athletes. The athletes may additionally anxious, increase their heart beats, sweat allover as they be anxious about the feasible outcomes of their overall performance. Such athletes find it difficult to focus on the venture beforehand.

This element has resulted in lots of coaches and trainers to take extra hobby inside the challenge of sports psychology, especially inside the thing of competitive tension. The attention has focused on elements that affect overall performance in sports, bodily interest and exercise and on capabilities athletes practice in aggressive surroundings. Ones the elements effecting overall performance are hooked up, the abilities required for succeeded in aggressive surroundings also are taught to the athletes.

➤ Stress:

Stress is the non-precise response of the frame to any needs made on it. The events that produces pressure (or) the source of stress are referred to as stressors. In sports pressure decreases one's performances like demanding approximately the performances.

➤ Mental Imagery:

Mental interest permits the athlete to enhance the execution and precision of the given skill or assignment by means of wondering and imagining about it.

➤ Intelligence:

Intelligence is the aggregate mental capability or strength of an character to act purposefully, to think rationally, and to deal correctly with one's environment, Intelligence involve attention, is purpose directed, and has cost.

➤ Arousal and Activation:

It is important to realize what are the real activating forces that push and pull an athlete to transport or act for attaining the aim.

➤ Attention and Concentration:

Attention is the concentration of awareness upon one object in preference to upon an-different. There are wide variety of factors which distract and reduce attention and awareness, which is turn will result in terrible overall performance.

➤ Group Dynamics:

Better performance will end result if every member of the group merges his non-public emotions and capabilities into a complete team attempt.

➤ Attitude:

Attitudes are developed thru direct enjoy and interpersonal verbal exchange. Positive beliefs and values regarding physical pastime result in improvement of appropriate and superb attitudes, allowing the athlete to try tough for better overall performance.

- Individual variations most of the athletes:
Each athlete is unique to oneself. Some athletes can be outgoing and extrovert while different can be shy, introvert and withdrawn, and they may also differ in their levels of perception.
- Personality:
The human character is a marvelously elaborate structure, delicately woven of reasons, feelings, behavior and thoughts, right into a pattern that balances the pulls and pushes of the outdoor world. It is the totality of his being, and includes his bodily, mental, emotional, and temperamental make-up.
- Anxiety:
Anxiety is an crucial component of any aggressive state of affairs and without positive degree of anxiety, there can't be competitive overall performance.
- Aggression
Aggression is a applicable behaviors in sports activities and games for max performance. Players have to be competitive due to the nature of the games. Frustration is the reason of aggression. The amount of aggression is typically determined by the level of frustration produced by using the particular state of affairs.
- Motivation:
Motivation is a force, a pressure which activates, compels, and energizes an man or woman to behave or behave a specific manner, at a selected time, for achieving the unique purpose or reason. In the absence of motivation, both there might be no getting to know, or little or no getting to know, and the found out interest or talent could be forgotten very quickly.
- Tension:
Tension is a frightened reaction to situations. Low degree of tension is anxiety. Tension arises when a intention is not at once attained. Minimum level of muscular tension is needed for quality motor performance.

Conclusion:-

Mental training and preparation strategies must be synchronized with individual personality. Much research conducted on personality traits, state of mind, and mood as reported in sport settings confirm an assumption that past behavior is the best predictor of future behavior. Each of us carry our own repertoire of behavior tendencies, most of which were learned from watching others or taught to us by others. At some point, all of us must claim full responsibility for each and every behavior we choose to do, and a stronger personality achieves that claim sooner than a weaker personality. Looking at the psychological factors in sport is a must for taking your game to the next level.

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Importance of Nutritional Diet for Sportsman

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Introduction:-

Diet is one of the important and simple organic desires of man. It is the foundation for proper health. It is crucial for existence, boom and repair of human frame, regulation of frame mechanism and manufacturing of power for work. The above features of food regimen can be carried out best thru adequate nutrients which need to consist of vital nutrients inside the required proportion. These nutrients consist of Proteins, Carbohydrates, Fats, Minerals and Vitamins. Nutritious eating regimen is always endorsed for healthful frame and thoughts. In case of Sportsman / Athlete nutritious weight loss plan plays an vital function of their performance. Because for the duration of sports education, the power requirement of the players is high as such the food plan ought to be consequently planned in any other case the players will not have the stamina to face up to the training and the player will show the symptoms of fatigue which may additionally result in inner and external injuries to the players.

The aim of this article is in sports is generally accepted that carefully planned nutrition like carefully planned training has a decisive influence on athletic performance. Carefully planned nutrition might be thought of as the right balance between, the energy and nutrient content of the athlete's diet: and the energy and nutrient demands of his life style.

Importance Of Nutrition For Sportsman / Athlete:-

Nutrition is important aspect for all, especially for Sportsman / Athlete. They need balanced food to maintain their stamina. Good food habit provides them energy to perform their activities in a better way. Thus, they should organize their diet by taking good quality food to maintain their health.

Important Factors For Planning A Diet Schedule:-

The energy requirements of the players is dependent on body size and composition, age, physical activity, climate and environment.

1. **Age**
2. **Sex**
3. **Body weight**
4. **Climate and Environment**
5. **Physical activities**

Recommendation for Healthy Sports Nutrition:-

Certain dietary guidelines for athletes:-

Health and nutrition professional recommend that 55-60 % of the calories in our diet come from carbohydrate, no more than 30% from fat and the remaining 10-15 % from protein. While the exact percentages may vary slightly for some athletes based on their sport or training program, these guidelines will promote health and serve as the basis for a diet that will maximize performance

Calories need a day for an Athlete:-

This depends on your age, body size and training program. For example, a 250 –pound weight lifter needs more calories than a 98-pound gymnast. Exercise or training may increase calorie needs by much as 1,000 to 1,500 calories a day. The best way to determine if your getting too few or too many calories is a monitor your weight. Keeping within your ideal competitive weight range means that you are getting the right amount of calories.

Fluids-water or sports drinks:-

Depending on how muscular you are 55-70% of your body weight is water. Being “hydrated” means maintaining body's fluid level. When you sweat you lose water which must be replaced if your want to pet-from your best. You need to drink fluids before, during and after all workouts and events.

Electrolytes are nutrients that affect fluid balance in the body and are necessary for our nerves and muscles to function. Sodium and potassium are the two electrolytes most often added to sports drinks. Generally, electrolyte replacement is not needed during short bursts of exercise since sweat is

approximately 99% water and less than 1% electrolytes. Water, in combination with a well balanced diet, will restore normal fluid and electrolyte levels in the body.

However, replacing electrolytes may be beneficial during continuous activity of longer than 2 hours, especially in a hot environment.

Muscles use for energy during exercise:-

Most activities use a combination of fat and carbohydrate as energy sources. How hard and how long you work out. Your level of fitness and your diet will affect the type of fuel your body uses. For short-term, high- intensity activities like sprinting athletes rely mostly on carbohydrate for energy. During low- intensity exercises like walking, the body uses more fat for energy.

Carbohydrates:-

Carbohydrates are sugars and starches found in foods like breads, cereals, fruits, vegetables, pasta, milk, honey, syrups and table sugar. Carbohydrates are the preferred sources of energy for your body. Regardless of origin, your body breaks down carbohydrates into glucose that your blood carries to cells to be used for energy. Carbohydrates provided 4 calories per gram, while fat provides 9 calories per gram. Your body cannot differentiate between glucose that comes from starches or sugar. Glucose from either source provides energy for working muscles.

Sugary foods before an event:-

In the past, athletes were warned that eating sugary foods before exercise could hard performance by causing a drop in blood glucose levels. Recent studies, however, have shown that consuming sugar up to 30 minutes before an event does not diminish performance. In fact, evidence suggests that a sugar-containing pre-competition beverage or snack may improve performance during endurance workouts and events.

Vitamins and minerals:-

Athletes need to eat about 1,800 calories a day to get the vitamins and minerals they need for good health and optimal performance. Since most athletes eat more than this amount, vitamin and mineral supplements are needed only in special situations. Athletes who follow vegetarian diets or who avoid an entire group of foods (for example never drink milk) may need a supplement to make up for the vitamins and minerals not being supplied by food. A multivitamin-mineral pill that supplies 100% of the Recommended Dietary Allowance (RDA) will provide the nutrients needed. An athlete who frequently cuts back on calories. Especially below the 1,800 calories level is not only at risk for inadequate vitamin and mineral intake, but also may not be getting enough carbohydrates. Since vitamins and minerals do not provide energy, they cannot replace the energy provided by carbohydrates.

Extra protein help to build muscle mass:-

Many athletes, especially those on strength- training programs or who participate in power sports, are told that eating a ton of protein or taking protein supplements will help them gain muscle weight. However, the true secret to building muscle is training hard and consuming enough calories. While some extra protein is needed to build muscle, most American diets provide more than enough protein. Between 1.0 and 1.5 grams of protein per kilogram body weight per day is sufficient if your calories intake is adequate and you're eating a variety of foods. For a 150-pound athlete, that represents 68-102 grams of protein a day.

Iron is so important:-

Hemoglobin, which contains iron, is the part of red blood cells that carries oxygen from the lungs to all parts of the body, including muscles. Since your muscles need oxygen to produce energy, if you have low iron levels in your blood, you may tire quickly. Symptoms of iron deficiency include fatigue, irritability, dizziness, headaches and lack of appetite. Many times, however, there are no symptoms at all. A blood test is the best way to find out if your iron level is low. It is recommended that athletes have their hemoglobin levels checked once a year.

Conclusion:-

All sports activities humans require a balanced weight-reduction plan with the precise intake of carbohydrate, protein and fat. It is higher to desk a weight-reduction plan chart at some point of the training length in addition to the time of in shape/ competitions for numerous recreation sports in consultation with a proper dietician.

Proper weight loss program not only enables to improve the overall performance of the gamers however also extensively reduces the inner and outside injuries. A sportsman, but hard he works on his occasion, will not obtain his aim unless he's supported with the right kind of nutrition,

both qualitative and quantitative as he is taken into consideration to be underneath severe strain, each bodily and intellectual.

“HEALTH IS WEALTH” – this saying fits to the sportsperson also. The wealth of a sportsperson is his or her performance. So health plays principal position for their stamina and for higher overall performance. Sportsperson needs properly fine food, fitness and courage.

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Stress Management Techniques for Sports Teachers & Coaches

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Introduction:-

It is critical for coaches to discover healthful approaches to deal with pressure to be able to live within the pleasant condition feasible to instruct their players. Coaches need to recall to keep relationships out of doors of the athletic world as a reminder that there's more to existence than training. Whether it's simply an occasional telephone name, a few deep respiration physical activities, or maybe seeing a counselor, take the time essential to separate from demanding occasions or situations. When it involves coping with strain, there are a few helpful processes that any train can use.

Stay Positive:-

Thinking fantastic mind is essential for strain due to the fact people often come to be worried if they experience they're acting badly. Therefore, it is essential to view troubles as "demanding situations" or possibilities for development. This units a tremendous example for players on how to cope with any problems that would rise up in their own lives. Furthermore, this can translate into fantastic mindsets for the gamers and encourage achievement for the entire team.

Get To Know Your Team Personally:-

It may be tempting to view the crew as a novel entity, however remember that it's far made of person human beings with character testimonies. Getting to know players outdoor of practices and games may be as clean as organizing group dinners either at eating places or at a person's residence. Setting up a crew building pastime at an entertainment park, ropes route, or a few different out of doors adventure middle can encourage bonding and permit the crew to have amusing collectively. Coaches may even supply anyone something to speak approximately by taking the group to look the most famous movie in theaters.

Allow Time for Personal Exercise:-

While coaches spend all day operating athletes into physical shape, it may be difficult to recall to make the effort to stay in shape themselves. Many coaches were as soon as aggressive athletes and know what it looks like to stay in form. There are many advantages to staying in form which include:

- Improving self belief, vanity, and body photograph.
- Setting a terrific instance for athletes that demonstrates a commitment to athletics and fitness is lifelong.
- Keeping a wholesome weight.
- Releasing endorphins keeps people satisfied while loosening up the muscle groups to alleviate strain and frustration.

As a train, it can be tempting to paintings twelve hour days and forget about to time table time for personal exercising. Remember that exercising is one of the simplest and most worthwhile approaches to relieve stress.

Take Breaks:-

In order to prevent burnout, it's miles important to don't forget to step far from the game. This can take numerous bureaucracy from a brief 15-minute smash or real vacation time, depending on the situation. Examples encompass:

- Leaving the office to head for a walk across the complicated to present the mind a rest.
- Exercising as a way to alleviate the stress of the job.
- Taking prolonged vacations before or after a season with buddies or circle of relatives to ensure the mind is fresh for a new yr.

After taking a destroy, coaches return to the sector with a easy slate and a fresh set of eyes. Coaches aren't simplest relaxed, but have the power to deal with the complications that include education. This tactic might also even permit them to discern out the solution to that one, persistent hassle.

Keep a Realistic Schedule:-

Keeping a time table is vital in any enterprise, particularly athletics. It can be smooth for human beings to accidentally double-book agenda slots or finances too little time for a hassle that winds up taking plenty larger than predicted. Coaches can get so busy they received even keep in mind what became on their to-do list while not having it written down. To assist keep a prepared schedule, put money into a planner with plenty of slots for careful scheduling and room in the margins to make notes on positive duties. Coaches need to live far away from stretching themselves too thin, so remember not to time table too many responsibilities. Furthermore, permit sufficient time to complete each undertaking via blocking massive slots in the agenda for activities that take extra time to finish.

Following these hints will allow coaches to keep their days nicely planned and relieve strain by knocking out duties in an efficient way.

Give Breathing Techniques a Chance:-

When it involves respiratory strategies, it's far important to inhale and exhale deeply. Breathing strategies have verified consequences which have helped every person, which includes coaches, control strain. Breathing in deeply lets in for maximal expansion and deflation. This enables to stretch and launch muscle mass that are typically used to hold strain. As the fibers pass across every other, substances such as lactic acid are released from muscular tissues and assist humans to relax. This releases hormones that create happiness and relieve pressure. After a few breaths, it'll sluggish down the coronary heart charge and permit the pressure to use up.

Spend Time With Those Close to You:-

Almost each recreation has games during the weekends and practices in the course of the week. This busy agenda could make it is simple to lose touch with own family and pals. Remembering to spend time with these people can truly assist relieve strain. In truth, those friends, either within the sports global or outdoor the industry, are extraordinary people to vent frustrations to. They can even carry new views to the education career. Family and friends additionally make a fantastic counter-stability to a expert career and are an essential element to maintaining humans grounded.

Make sure to stay in touch with those who remember most. Whether it's a cell phone call, a meal, or spending daily time with a spouse, do no longer lose touch with the human beings that remember maximum. They are critical for coping with pressure and preserving a solid paintings-existence stability.

Delegate Tasks:-

Another manner to live organized and alleviate a number of your workload is by delegating tasks to coaching assistants. This is why there may be a coaching body of workers. Remember that assistant coaches can manage responsibilities like making cell phone calls to other teams, administration, or potential potentialities. Allow them to assist plan the itinerary for an upcoming road journey or maintain conferences with a certain subset of the group. By trusting in the people round them to take objects off of their plate, coaches can appreciably lessen their stress degrees.

Keep Up With Your Hobbies:-

Make sure to hold life outdoor of the education world. While this might appear to distract from the career, anybody has pastimes outdoor of coaching which might be crucial for retaining the thoughts fresh. Ideas for hobbies consist of:

- Woodworking, blacksmithing, generation, or different home development tasks.
- Watching the modern-day TV series to generate some other subject matter of conversation with other coaches, athletes, pals, and circle of relatives.
- Expanding the tour itinerary each domestically and overseas.

Hobbies are an essential manner to awareness on something aside from sports activities and supply the mind a ruin. Find some thing to cling on to outdoor of a coaching profession. It's the people without a source of happiness outside of training that can warfare the most.

If Needed, See a Counsellor:-

While many human beings agree with there is a stigma about asking a counsellor or therapist for help, ultimately this will be the necessary step to handling strain. Professionals have high-quality thoughts approximately coping with stress. They have spent many years in school studying the state-of-the-art techniques in pressure control and come to sessions armed with the know-how important to probably shop careers and relationships.

Conclusion:-

Stress management techniques in recreation normally target somatic, behavioral, and/or cognitive affective signs of pressure. Somatic responses contain the athlete's physiological reactions, inclusive of changes in coronary heart charge (HR), respiratory (R), sweating, gastrointestinal functioning, muscular tension and manage, student dilation, urinary machine, and salivation. Behavioral responses are the direct movements taken due to the fact of the stress, which includes engagement or disengagement insure strategies or activities, as nicely as distraction. Finally, cognitive affective responses consist of the mind associated with the pressure, including worries, ideals, apprehensions, and bad expectations about performance in addition to motion plans to control pressure. Distinguishing among and being aware of each of these factors is essential for the athlete, train, and SP consultant, as this understanding facilitates to make certain the right strain control skills are applied.

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Role of Yoga

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Introduction :-

Yoga commonly and unofficially referred to as Yoga Day is celebrated annually on 21 June since its inception in 2015. An international day for Yoga was declared unanimously by the United Nations General Assembly (UNGA). Yoga is , physical mental and spiritual practice originated in India One of the beauties of the physical practice of yoga is that the poses support and sustain you no matter how old or young, or fit or frail, you come to your mat. As you age. your understanding of asana becomes more sophisticated. You move from working on the external alignment and mechanics of the pose to refining the inner actions to finally just being In the asana. Yoga has never been alien to us. We have been doing it since we were a baby! Whether it is the Cat Stretch that strengthens the spine or the Wind-Relieving pose that boosts digestion, you will always find infants doing some form of yoga throughout the day. Yoga can be many things to many people. We are determined to help you discover you're "Yoga Way of Life"

Benefits of Daily Yoga :-

Weight loss., a strong and flexible body, glowing beautiful skin, peaceful mind, good health whatever be looking for, yoga has it on offer. However, very often, yoga is only partially understood as being limited to asanas (yoga poses). As such, its benefits are only perceived to be at the body level and we fail to realize the immense benefits yoga offers in uniting the body, mind and breath. When you are in harmony, the journey through life is calmer, happier and more fulfilling. With all this and much more to offer, the benefits of yoga are felt in a profound yet subtle manner. Here, we look at the top 10 benefits of regular yoga practice.

All-round fitness.

You are truly healthy when you are not just physically fit but also mentally and emotionally balanced. Sri Sri Ravi Shankar puts it, "Health is not a mere absence of disease. It is a dynamic expression of life in terms of how joyful. Loving and enthusiastic you . This is where yoga helps postures, Pranayama.

Weight loss. :-

What many want! Yoga benefits here too. Sun Salutations and Kapalbhathi Pranayama are some ways to help lose. Moreover , with regular practice of yoga, we tend to become more sensitive to the kind of food our body asks for and when. Then can also help keep a check on weight.

Stress relief.:-

A few minutes of yoga during the day can be a great way to get rid of stress that accumulates daily - in both body and mind- Yoga postures, pranayama and meditation are effective techniques to release stress.You can also experience how yoga helps de-tox the body and de-stress the mind at the Sri Sri Yoga Level 2 Course.

Inner peace.

We all love to visit peaceful, serene spots, rich in natural beauty. Little do we realize that peace can be found right within us and we can take a mini-vacation to experience this any time of the day! Benefit from a small holiday every day with yoga and meditation. Yoga is also one of the best ways to calm a disturbed mind.

Improved immunity.

Our system is a seamless blend of the body, mind and spirit. An irregularity in the body affects the mind and similarly unpleasantness or restlessness in the mind can manifest as an ailment in the body. Yoga possesses massage organs and strengthen muscles: breathing techniques and meditation release stress and improve immunity

Better relationship :-

Yoga can even help improve your relationship with your spouse, parents, friends or loved ones! A mind that is relaxed, happy and contented is better able to deal with sensitive relationship matters. Yoga and meditation work on keeping the mind happy and peaceful: benefit from the strengthened special bond you share with people close to you.

Increased energy.

Do you feel completely drained out by the end of the day? A few minutes of yoga everyday provides the secret to feeling fresh

Better flexibility & posture.

You only need to include yoga in your daily routine to benefit from a body that is strong, supple and flexible. Regular yoga practice stretches and tones the body muscles and also makes them strong. It also helps improve your body posture when you stand, sit, sleep or walk. This would, in turn, help relieve you of body pain due to incorrect posture.

Better intuition.

Yoga and meditation have the power to improve your intuitive ability so that you effortlessly realize what needs to be done, when and how. to yield positive results. It works. You only need to experience it yourself.

Other Benefits of Yoga.**Holistic Yoga: A Fitness Mantra.**

"One can be said to be in a perfect state of health when one is physically fit, mentally calm and emotionally steady" says Sri Sri Ravi Shankar. Beyond just physical fitness, yoga strengthens mental and emotional capacity. A yoga practice inspired by family fitness goals growing up with a father who was a sports-enthusiast. I used to tag along with him on the tennis court. My father would often bring home trophies after winning tournaments in basketball, tennis and bowling. While I did not become a professional tennis player as my and secretly wished, I eagerly shared his goal of achieving fitness. For me, this meant playing sports, joining dance lessons and learning yoga and meditation to boost my energy levels. ~ *Yoga & the body-health-mind link*. you ever noticed the breath while inhaling the scent of a flower? On a recent walk in Paris, just at the brink of spring. I noticed the blooming flowers spilling over garden gates. Happily breathing in the scent of rocs and daffodils. I observed my breath. I was taking in deep inhalations. My body was invigorated with 'energy or that viral life force called prana. I fell strong, alert and joyful; fit to tackle whatever might come my~ way. A person could tolerate going without sleep or food for a few days and still remain alive. Yet how long ' could one go without breathing? Yoga and breathing arc linked. With attention on the breath and practicing breathing exercises to boost lung capacity, yoga practice keeps the energy level high. level of prana, the mind is clear and happy.

Yoga is a mind soother.

Breathe Your Way to a Calm Mind with Yoga the mind never gets a day off. It's either busy with who siad what or mulling on the past or the future. With yoga and meditation, train your mind to stay calm, happy and leaxed.. Imagine going on a long drive to the countryside with a rundown car. Far from enjoying the scenery, you will be caught up with the car trouble. We don't often realize but the same happens when the mind is too occupied with past events or future anxieties. We fail to enjoy the beauty in simple things being with nature, enjoying a sunset. Is there nothing that can 'quiet' the mind and allow us to enjoy the moment? Yoga could provide the answer. How does the mind work? What does yoga do? But first, is there really a need to quiet the mind's chatter? Do you find your mind wandering off on a trip of thoughts about the past or future? Even with your eyes open and glued to a computer screen, your mind could be elsewhere. The result: low productivity Such mind-chatter affects not just our work but also our day-to-day life. While there is no way the mind can be "turned off for some time, the present and restores clarity and alertness. Calm the mind with breathing exercises if described above - this time after doing a few rounds of breathing (Pranayama). And it's not just the experience during meditation that matters but how you feel after. The mind becomes quieter and unperturbed, and you find yourself much more in control of things. All these practices combined together can help switch the mind. Reduced emotional outbursts of anger or disappointment. No BP. no heart trouble. No prolonged sulking if things don't work out my way. Clarity in vision and speech. Conviction in action, and almost unending inner strength. 'When the mind Tim the speech is more articulate,' I heard him say. So, yoga empowers .communication as well. Even if someone had told me these benefits when I started my yoga classes in college, I wouldn't have taken the words at face value.

Physical and Menial stresses A way.

look back and see the number of instances where fiery confrontation with colleagues, boss, spouse, kids and sundry others was clearly avoided because of the hour of daily yoga. Daily yoga washed out physical and mental stresses picked up during a regular workday- This is how situations that would normally bring out anger were combated with clarity in thought and effective communication.

1. Well begun is more than half done - Start the day off with some yoga and meditation. Basic yoga stretches and warm ups help loosen me up and the meditation refreshes me, so I know that I am fully charged and **ready to** tackle the rest of the day!
2. **A mind drat says.** "YES!" A positive attitude fosters success and yoga fosters a positive attitude.
3. The balancing act - Yoga and time management are both all about balance. My yoga teacher taught me that the poses we adopt must be stable and comfortable (Shriram sukhamasanam). I make sure that my plan for the day keeps me occupied properly, but leaves enough time for recuperation and entertainment
4. Intuition helps prioritize well a very powerful yoga technique; the Sun Sa3utations_(Suryanamaskaar) has innumerable benefits, one of which is developing your intuition, your third eye center. This helps you choose your activities with wisdom and foresight.

Conclusion :-

Yoss & Pranayama is the extension and control of one's breath. Practicing proper techniques of "reaming can heir- brines more oxygen to the blood and brain, eventually helping control prana or the vital life energy. Yoga & Prunayams also goes hand in hand with various yoga asanas. The union of these two yogic principles is considered as the highest form of purification and self-discipline, covering both mind and body. Yosa & Pranayama techniques also prepare us for a deeper experience of meditation. Know more about various Yoga & Pranayama techniques in these sections. This section lays an exclusive commentary by Sri Sri Ravi Shankar on the ancient scripture. Paianjaji Yoga S_u_trgs, which will enlighten you on the knowledge of yoga, its origin and purpose. The goal of this rendition of the Yoga Sutras is to make the principles and practices of the Yoga Sutras mere and accessible. The descriptions of each sutra offered by Sri Sri Ravi Shankar .Tactical suggestions of what can be done to experience the ultimate benefits of a yogic. Are emotions taking a toil on your personal and work learn more about how yoga can aide you in overcoming issues naturally with minimum lifestyle changes.

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Role Of Yoga In Physical Education And Sports

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Abstract

The word yoga comes from the Sanskrit word “Yuj” mean to yoke join on unite. This implies joining or integrating all aspects of the individual body with mind and with soul to achieve a happy, balanced and useful life, and spiritually, uniting the individual with the supreme, through yoga is spiritual quest. The aspirant also gains health, happiness, tranquility and knowledge.

Key Words: Yoga, Physical education and sports.

Introduction:

In the present time, more and more people, especially the westerners, are resorting to Yoga to find cure for chronic health problems and attain a peace of mind. They are also curious about knowing what exactly is Yoga and what are included in it. Although many of us are well aware of the health benefits of the physical activity, not everyone knows about the origin and exact definition of Yoga. It is a popular belief that Yoga merely includes stretching and warm up exercises. Of course, yoga involves stretching, but includes many other things beyond that. various practices of yoga can be broadly divided into five major branches, they are Asana, Pranayama, Bandhamudra, Shrudhikriya and Meditation (Dhana).

Objective Of The Study:

- To understand the role of yoga in physical education and sports.

Review Of Literature:

Cushman (2010) reviews of the research on the use of yoga for treating depression said that preliminary research suggests that yoga may be effective in the management of depression. Both the exercise and the mindfulness meditation components may be helpful. **Walsh (2016)** studies on the effects of hatha yoga showed that the emphasis on breath awareness internal centering, relaxation, and meditation enabled participants to learn to avoid mental and emotional blockages. These strategies helped participants experience lower stress and anxiety levels in addition to higher quality of life scores.

Physical Aspects Of Yoga:

Yoga has been highly westernized in recent years, and a majority of the result of this westernization and modernization is the heightened profile of the physical aspect yoga has to offer. This physically-exerting practice is the typically hatha yoga, which combines asanas that exert the participant's physical self. The therapeutic healing benefits of yoga were recently discussed by van der Kolk, who posited that regulation of physical movement is a fundamental priority. Of the nervous system. For this reason. Focusing on and developing an awareness of physical movement allows for the mind and body to connect and be in sync. This is beneficial for humans especially those suffering from psychological conditions such as depression and PTSD (the focus of van der Kolk's work) because the connectedness of mind and body allow for feeling of control and understanding of their “ inner sensations “ and state of being. The physical benefits of yoga are linked to the release of a-endorphins and the shift caused in neurotransmitter levels linked to emotions such as dopamine and serotonin.

These benefits are most likely in high-intensity practices of yoga. Lower-intensity yoga practices, which includes a majority of yoga, typically spark the “relaxation response” as defined by Dr. Herbert Benson. This response is typified by a “physiological de-activation” of tenseness and control over one's body. Beson related this release of control to the implicit dominance of the parasympathetic nervous system (PNS).

Yoga Sports And Athletics:

Increasingly yoga is used to train sportspersons and athletes, to maximize performance, improve conditioning, and minimize injury. Yoga is used extensively within British football to minimize injury, with Manchester United Ryan Giggs one of the most high profile_players to publicly incorporate it in his training regime. This has led to increased interest in the benefits of yoga in other

sports and the rise of sports-specific yoga programs linking yoga with Sports Science, such as those developed by UK-based Yoga Sports Science.

Physical Benefit Of Yoga:

It is often said that “you are as young as your spine” Asanas initially focus an increasing and maintaining flexibility of the spine, to ring and rejuvenating the nervous systems. The gentle stretching, twisting and bending movements bring flexibility to the other joints and muscles of the body, as well as massaging the glands and organs. Circulation is also improved, ensuring a rich supply of nutrients and oxygen to all the cells of the body.

Conclusion:

Considering the benefits of Yoga, if these exercises will combine with Sports training programme, it is possible a significant increase in the effectiveness of the entire training process, which facilitated the development of correct movements, habits Sports skills and protect the body of the athlete. For this a combine model is needed here.

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Role Of Sports Wears In Enhancement Of The Performance**Dr. Shirish V. Topare**Director of Sports & Physical Education
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We are all aware of the fact that, sports wears i.e. uniforms worn by the players during practice and tournaments have underwent drastic changes during last decades. There are several reasons for this change. The most prominent factors affecting evolution of Sports wears are: Function and Fashion.

Functional aspect: Any sportsperson wears the uniform which will help in enhancing his performance. The sports wears need to be in accordance with the technical aspects of particular sports. Different sports disciplines have different prerequisites for elite performance by concerned athlete. The sports wears are changing accordingly. Some sports require greater mobility while others require greater stability. The type of sports wears entirely depend upon the skills involved in that particular sports.

Along with this, the sports wears should help in avoiding injuries during practice and tournaments. The sports wears play very important role in this direction. This helps in enhancing performance by athlete to greatest degrees with minimum chances of injuries.

Some sports wears assist in execution of various skills involved thus improving the performance of concerned athlete. So many innovations are being made in sports wears industry for producing the uniforms which may help in improving performance and providing comfort to the athletes.

Fashion aspect: Sports events have become powerful commercial events nowadays. A lot of money and publicity is involved in sports these days. Every country, club, federation and player wants to influence the audience by wearing most impressive and effective sports wears. This also helps in boosting the confidence of an athlete.

With the advancement in visual display of sports events, more and more focus is being made on quality of sports wears. The sports wears nowadays have become fashion symbols. The athletes with world rankings are provided with specialized sports wears for influencing the mind set of audience throughout the world. This has become million dollar industry.

The sports wears nowadays are highly technology based. They not only assist in performance enhancement but also help in assessment of the performance of an athlete. These have become smart wears. The records are being broken in every sports disciplines in recent past, the sports wears have played extremely important role in this phenomenon.

This is not the case with competitive sports only. The fitness industry has become extremely huge industry. The sports wears required by the fitness lovers have also underwent drastic change and is changing on day-to-day basis.

The sports stars are no less than movie stars nowadays. They are being idealized and praised by millions of their fans.

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Roles Of Relaxation Technique On Performance Improvement

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A Relaxation technique is any method, process, procedure or activity that helps person to relax; to attain a state of increased calmness; or otherwise reduce the levels of Anxiety, stress or tension. Relaxation techniques are often employed as one element of a wider stress management program and can decrease muscle tension, lower the blood pressure and slow heart rate and Breath rates, among other health benefits.

Since the 1960s, research has indicated strong correlation between chronic stress and physical and emotional health. Meditation was among the first relaxation techniques shown to have a measurable effect on stress reduction.

The sport and performance environment is highly demanding for its actors. Therefore, recovery from work and sports requires special attention. Without adequate recovery, optimal performance is not attainable. It depends, however, on the individual what adequate recovery actually is. An extremely demanding event for someone may not be as demanding for someone else. Every individual perceives his or her environment differently and therefore has to choose his or her response or prevention strategy accordingly. Monitoring one's recovery-stress states might be a promising starting point to establish individual baselines and further regulate training or work intensities. Relaxation in terms of implementing systematic relaxation techniques seems to be an adequate approach. These techniques can be divided into muscle-to-mind and mind-to-muscle techniques focusing either on the training of one's sensitivity to muscle tension or on the cognitive processes involved in relaxation. Whether the recovery process is finally successful depends on if the chosen methods fit the purpose of recovery (i.e., response to cognitive or physical demands), the setting/circumstance (i.e., time and place), and how comfortable one feels with the specific recovery strategy.

Relaxation techniques

Davidson and Schwartz' matching hypothesis (1976), Kudlackova et al.'s study (2013), and Lehrer (1996) all suggest that muscularly-oriented methods have the greatest effects on the musculoskeletal system and autonomically-oriented methods on the autonomic nervous system. Strategies with predominant cognitive components were associated with decreases in amount of worrying, self-assessment of anxiety or pain, and an increase in the ability to concentrate (Jain et al., 2007). The most prominent techniques that fall thereunder are hypnosis and autogenic training. Hypnosis is defined as an altered state of consciousness that can be induced by a procedure in which a person is in an unusually relaxed state and responds to suggestions for making alterations in perceptions, feelings, thoughts, or actions (Barker & Jones, 2008). Autogenic training on the other hand, is a self-hypnotic method that uses trance-inducing procedures similar to hypnosis (Luthe & Schultz, 2001). Self-suggestions of heaviness and warmth in the limbs, a calm and regular heartbeat, coolness in the forehead, warmth in the solar plexus, and automatic breathing are common practices within autogenic training (Luthe & Schulz, 2001). Strategies with predominant skeletal muscle components tend to produce greater muscular effects, e.g., a decrease in muscle tone and tension. Different versions of PMR, biofeedback, yoga, and systematic breathing are the most investigated techniques in this domain (Kudlackova et al., 2013). Progressive muscle relaxation and its derivations have received the most attention in scientific context. Following the theoretical basement of Jacobsen (1938), the central aim of a relaxation technique is the deliberate and continuous reduction of tension in specific muscle groups of the locomotor system. The original method in which the emphasis is laid on training of self-perception of muscular sensations, has greater effects on somatic issues while the revised versions in which producing a subjective experience of relaxation is the key strategy, have a greater impact on cognitive symptoms (fears and anxieties; Dolbier & Rush, 2012). A review on the use of PMR in clinical trials revealed moderate to large effect sizes on the effectiveness of PMR (Crawford et al., 2013). Similarly, systematic breathing (including relaxed basal breathing,

diaphragmatic breathing, and abdominal breathing) is reported as being one of the simplest and most effective ways to control anxiety and muscle tension (Lewis et al., 2007). Williams and Harris (1998) state that inhaling and holding ones breathe increases muscle tension whereas exhaling decreases muscle Relaxation 13 tension. A slow and deliberate inhalation-exhalation sequence will help one to maintain composure and control over tension levels during stressful events (Weinberg & Gould, 2010). It is further operationalised as using the lower chest for breathing while relaxing the upper chest and shoulders (Pryor, Webber, & Bethune, 2002). Yoga, with its roots in ancient Indian philosophy, is used for physical, mental, spiritual wellbeing and performance (Bhargav, Bhargav, Raghuram, & Garner, 2016; Doulatabad, Nooreyan, Doulatabad, & Noubandegani, 2012). More specifically, it has been found to be effective for addressing issues regarding strength, flexibility, balance, gait, anxiety, depression, and cognition enhancement (Salgado, Jones, Ilgun, McCord, Loper-Powers, & van Houten, 2013). Yoga practise affects general attentional abilities as it emphasizes body awareness and involves focusing one's attention on breathing or specific muscles or parts of the body (Bhargav et al., 2016). It produces similar effects as relaxation, as it tends to promote self-control, attention and concentration, self-efficacy, body awareness, and stress reduction (Nardo & Reynolds, 2002). Research suggests that sympathetic activation occurs during the yoga posture phase and the parasympathetic nervous system becomes dominant after the practice during the relaxation phase (Bhargav et al., 2016; Sarang & Telles, 2006). Further, biofeedback provides the individual with information of bio-signals, which are generated by physiological processes in the body and are generally inaccessible to the conscious perception. As a therapeutic measure, biofeedback pursues the goal of creating opportunities for the individual to voluntarily influence these processes. Basically, self-control over bodily processes is targeted. Biofeedback training is addressing oscillation by stimulating and exercising modulatory reflexes in the central nervous system, improvement of baroreflex functions, modulation of blood pressure and a decrease in anxiety and depression (Lehrer, 2012). A method, which has not been defined as a systematic relaxation technique but is used widely as a recovery strategy, is the power nap. Despite not belonging to the same group of techniques, one common overall goal of sleep and relaxation techniques is physiological restoration. Smith (1999) therefore termed sleep/power naps an essential but unrecognized relaxation process. An indication supporting this assumption might be that novice practitioners spend up to 50 percent of their relaxation in sleep in the early phases of relaxation training.

Having discussed the effects of improved breaks, especially through administering relaxation techniques, it was concluded that performance can benefit from adequately organised breaks. Breaks in general are a part of almost every sport. Systematic breathing and power naps both led to performance improvement and to relaxation response related measures in terms of heart rate adaption and self-reports. However, yoga relaxation and PMR led to similar physiological and self-report changes but not to performance enhancement. In the same vein, a review of treatments in music revealed that techniques such as deep muscle relaxation did not affect performance directly but improved selfreport measures of performance anxiety and reduced heart rate (Kenny, 2005). These findings indicate that even though a relaxation response is elicited, it still depends on how the situational factors are in line with the specific characteristics of a certain relaxation technique whether performance is enhanced as well. Considering for example PMR, the relaxation response induced during this technique might be too intense (e.g., muscle tone is too low) to allow optimal subsequent performance. Future research has to extend the knowledge on this topic and reveal more about the exact links between performance enhancement and related physiology. This Discussion 24 should be done especially in consideration of the sports specific loads. In response to the repeated sprint performance, the development within the six sprints could be analysed as well by investigating the decrement scores. This approach specifically examines the relationship between an ideal time (i.e., the time of the first sprint multiplied by the number of repetitions) and the actual time (i.e., the sum of all sprints). However, the average maximum velocity used in the present study is the most reliable measure compared to mean force and percentage decrement scores.

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A Comparative Study of Adjustment Level: Team Sports Persons Vs Individual Sports Person

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Abstract:

Background:

Sports are a psycho-social activity. It has both psychological and social dimensions beside physical, physiological and technical aspects. Among them the Adjustment level is part and parcel of life which plays an important role in our family life and also in the playground. The Adjustment level varies from person to person; especially different in sports and non-sports person as well as team sports and individual sports persons which is one of the biggest threats to their performance and also in their daily life. So, the study is undertaken on the adjustment level of team and individual sports persons.

Aim and Objective: To compare the adjustment level of Team sports persons and Individual sports persons.

Material and Method: Researcher observes the adjustment level of the students of various Teachers' training colleges and sports training centres of Amravati, Maharashtra by taking 66 male and 66 female subjects ranging from 17-21 years of age where among them 33 male from team sports and 33 from individual sports and 33 female from team and 33 from individual sports who were played a minimum inter-college level.

Result: The adjustment level of individual sports persons are significantly less than the team sports persons.

Conclusion: The study supports the view that the team sports persons are more adjustable in any situation than individual sports persons.

Key Words: Sports person; Team sports; Individual sports; Inter college level; Adjustment level;

Introduction:

The interest towards sports is naturally common to most of the persons of the world. It is specially found during the Olympic game where people from different nations participate to achieve the highest fame or in simple word to compete. But the quality of competition is highly affected by the psychological parameters of the participants. So, psychological factors are more important for performance of the participant as well as conduct the competition smoothly. In simple word, competition is not only the proficiency in the skill which brings victory but more important is the spirit of the players with which he plays and perform his best. Thus, in the modern era the psychological preparation of a player is as important as the learning of the skill. So, sports psychology which is an applied branch of psychology plays an important role for the better performance and increasing motivation of the athletes.

Team Sports:

Team sport is an activity where individuals form a group in an organized way to compete against the opponent to win. For example Cricket, Basketball, Volley Ball, Hockey, Hand Ball, Baseball, Football and so on. Here both the teams are interacting to achieve the same goal where the objective of the teammates is facilitating the movement of a ball or similar object in accordance with a set of rules, in order to score points. There are also some team sports where the players tried to perform well with heart and soul than his opponent instead of points scored against an opposing team, e.g. Swimming, Rowing, Sailing, Dragon Boat Racing, Track and Field etc.

In team game the performance of all the teammates has same importance. So that, a good performance of any individual can boost up the whole team, at the same time a poor performance can down the moral of the team. Beside that a senior player should always motivate his juniors to perform well also in adverse situations. Thus, we can say that the teammates of team game should maintain group cohesion to achieve the goal i.e. victory.

Individual Game:

Individual sports are sports in which participants compete as individuals rather than as members of a team. It is practiced by two opposing individuals or one individual. The advantage of individual sport is that the player does as he pleases and does not have to listen to the ideas of another player. A player's success or failure in individual sports is totally dependent on his own ability. Individual sport athletes are completely responsible for every play and cannot rely on the help of other teammates; this builds coping skills and resilience while developing self-esteem and confidence. Because athletes in individual sports are alone in the competitive arena, they must develop independent thinking. Without the help of team members, individual sports athletes must learn to think quickly on their feet, change tactics and strategies on a moment's notice, and resolve their own conflicts. Individual sports also teach athletes to set goals and push themselves to reach their personal best. Individual sports allow participants to connect more easily with their own mastery than do team sports.

Adjustment:

The process of adapting with the situation is adjustment. In psychology, adjustment refers to the behavioural process of needs against obstacles in the environment. It is for varying conditions of special or inter-

personal relation in the society. Adjustment means the reactions to the demands and pressure of social environment imposed upon the individual.

In team sports adjustment is needed very much. Because, here all the individuals of the team played to achieve the same goal i.e. victory. So, ever

Objectives: The objectives of the study were as under:

1. To find out the difference in adjustment level of male and Female Team sports persons.
2. To find out the difference in adjustment level of male and Female Individual sports persons.
3. To find out the difference in the adjustment level of Team sports person and Individual sports person.

Hypothesis: It was hypothesized that,

- i. There should be significant difference in the level of adjustment between the male and Female Team sports persons.
- ii. There should be no significant difference in the level of adjustment between the male and Female Individual sports persons.
- iii. The team sports persons have high adjustment level than the individual sports persons.

Material and Methods:

Sample selection:

The investigator selected Sixty (132) subjects for the collection of data which include thirty (66) sports person and (66) non-sports person ranging in age from 17-21 years by using Purposive sampling technique. The area was limited to Amravati, Maharashtra.

Tool:

The data was collected by using the standard questionnaire of adjustment constructed by Dr. D.N. Srivastava and Govind Tiwari. The questionnaire of "Adjustment Inventory" consists 80 questions out of which 20 questions belongs to Home adjustment section, 20 belongs to Educational Section, 20 belongs to Emotional section and 20 belongs to Social section. Each question has two options i.e. Yes or No. This questionnaire is associated with particular validity and reliability which is reliable for the study.

Method:

The data was collected from the various Teachers' training colleges and sports training centers of Amravati. The subjects were first explained about the aim of the research study, thereafter 'Adjustment Inventory' constructed by Dr. D.N. Srivastava and Govind Tiwari was administered. The subjects were assured confidentiality of their responses.

Results:

Table: 1 Statistical Comparison of Adjustment level between male and female Team Sports Person

Team Sports	Mean	S. D.	M. D.	S. E.	df	Obtained 't'	Tabulated 't'
Male	44.636	5.94	0.879	0.242	64	3.630	1.994
Female	45.515	5.71					

Table: 2 Statistical Comparison of Adjustment level between male and female Individual Sports Person

Individual Sports	Mean	S. D.	M. D.	S. E.	df	Obtained 't'	Tabulated 't'
Male	43.272	5.79	0.787	0.338	64	2.329	1.994
Female	42.485	6.02					

Table: 3 Mean of Adjustment levels of both Male & Female of Team sports and Individual Sports

Group	Mean	S. D.	Max. Score	Min. Score
Team Sports (Male & Female)	45.18	5.57	57	35
Individual Sports (Male & Female)	42.65	5.56	51	30

Testing of Hypothesis:

Hypothesis 1: There should be significant difference in the level of adjustment between the male and Female Team sports persons.

According to Table 1 the obtained 't' value 3.630 is greater than tabulated 't' value 1.994 i.e. the obtained 't' value is significant in 0.05 level of significance. So, it can be conclude that there is significant difference in the level of adjustment between the male and Female Team sports persons and the researcher's hypothesis is accepted.

Hypothesis 2: There should be no significant difference in the level of adjustment between the male and Female Individual sports persons.

According to Table 2 the obtained 't' value 2.329 is greater than tabulated 't' value 1.994 i.e. the obtained 't' value is significant in 0.05 level of significance. So, it can be conclude that there is significant difference in the level of adjustment between the male and Female Team sports persons and the researcher's hypothesis is rejected.

Hypothesis 3: The team sports persons have high adjustment level than the individual sports persons.

According to Table 3 the mean of the Team sports persons is 45.18, which is greater than mean of the Individual sports person i.e. 42.65. The scores of the Team sports persons ranged from 35 to 57 which are also more varied than the score of college student i.e. 30 to 51. Hence, it is finally said that the team sports persons have high adjustment level than the individual sports persons and the researcher's hypothesis is accepted.

Discussion:

Researcher found that in both team and individual game the female sports person has more adjustment level than male sports persons. So, researcher thought that it is due to the more aggressiveness of male, there adjustment level is low. At the same time females have low aggression level. So, there adjustment level is high than male.

Researcher also found that team sports persons have more adjustment level than individual sports person. According to researcher it is due to the nature of game. In team sports all the players should cooperate each other to achieve the goal. So, their adjustment level is high. Where as in individual games any player played the game in his own view, here anybody can't interfere. So, the adjustment level of individual game players is low than team game players.

Conclusion:

From the above study the conclusions can be drawn are:

1. There is significant difference in the level of adjustment between the male and Female Team sports persons.
2. There is significant difference in the level of adjustment between the male and Female Team sports persons
3. The team sports persons have high adjustment level than the individual sports persons.

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A Survey on Kabaddi in Today's India**Prof. Sameer P. Bijwe**Department of Physical Education, Smt. Radhabai Sarada Arts, Commerce & Science College,
Anjangaon Surji, Dist.: Amravati**Abstract:**

Kabaddi is associate inborn folks game of Republic of India. Currently in Republic of India it's thought of as "National Game". To create it international, impulse is provided solely terribly recently. Kabaddi is compete in additional than sixty five countries particularly Asian countries. In Republic of India Kabaddi is taken into account as National Game. A lot of impetus has been golf stroke solely terribly recently to create it a global game. Performance in kabaddi depends to an oversized extent on good shape. Sports trainers focus on rising the physical fitness and motor skills of a player, i.e., speed, strength, endurance, flexibility. Rising the good shape of a player is also known as learning. A sound learning programme forms the foremost vital a part of coaching any sports person.

Keywords: Kabaddi, Physical fitness, etc.

Introduction :

Kabaddi is associate inborn folks game of Republic of India. Currently in Republic of India it's thought of as "National Game". To create it international, impulse is provided solely terribly recently. To create a game fashionable and to rise it up to the international normal completely different rules should be framed, sound employment ought to be provided, skills ought to be developed and performance ought to be measured moreover as hyperbolic. For this purpose analysis ought to be done. Kabaddi is major game, that is compete everywhere the India. This game is additionally obtaining an honest standing in Asian sports. This game is classed as a team game. Sport could be a medium through that a player develops each physical and mental skills and at last it results into a aware technique of doing whatever one will most effectively, whereas in alternative arts we have a tendency to utilize mental and physical skills partly. Kabaddi is basically associate Indian game, which needs each talent and power. Kabaddi combines the characteristics of wrestling and rugby. [1]

Kabaddi is compete in additional than sixty five countries particularly Asian countries. Anthropometrical measurements relevant to human movement gained formal recognition as a discipline with the inauguration of the International Society for Advancement of Kinanthropometry in 1986. Anthropometrists of all continents have participated in many major multidisciplinary studies that are being or are conducted to assess the physical characteristics of individuals. Kinanthropometry has been outlined because the quantitative interface between human structure and performance. This interface is examined through the mensuration and analysis elderly, body size, shape, proportion, composition and maturation as they relate to gross body operate. Previous reports have shown that complex body part and morphological characteristics ar vital determinants of performance in several sports and sure physical impressions like body composition and physique (somato type) will considerably influence athletic performance. [2,3]

In Republic of India Kabaddi is taken into account as National Game. A lot of impetus has been golf stroke solely terribly recently to create it a global game. For this purpose tutorial analysis ought to be done. There's solely a couple of analysis works during this filed. This study was meted out through descriptive survey technique at intervals ex-post-facto analysis style. Seventy one men Kabaddi players of the groups of various Indian Universities were thought-about because the sample here. Knowledge was collected from the Kabaddi players in course of Inter-University Kabaddi (Men) Tournament, command within the University of Kalyani throughout Gregorian calendar month 12-14, 2006. The height, weight, leg length, arm length, middle thigh girth, calf girth, body composition (i.e. body fat %, fat mass and lean body mass) and body mass index were thought-about as physical and mensuration characteristics. [4]

In Kabaddi, the particular fitness is with regard to strength, speed and co-ordination. Fitness coaching equips the sportsperson to face the physiological and psychological challenges that return his method in his competitive sports career. Specific fitness allows the player to perform the weird movements needed by the involved sport, that the non-International sportswoman doesn't perform in his everyday routine. Specific fitness but depends loads on general fitness and this can

be the rationale why the sportsperson needs to provide equal importance to each general likewise as specific fitness, to succeed. [5]

Globally recognized game Kabaddi :

Kabaddi was introduced and popularized in Japan in 1979 by Sundar Ram of Bharat UN agency toured Japan on behalf of Asian Amateur Kabaddi Federation for 2 months to introduce the sport. In 1979, matches between Asian country and {india|India|Republic of Bharat|Bharat|Asian country|Asian nation} was command across India. the primary Asian Kabaddi Championship was command in 1980 and Bharat emerged as champion beating Asian country. the opposite groups within the tournament were Nepal, Malaya and Japan. the sport was enclosed for the primary time within the Asian Games in Peking in 1990 where seven groups took half. Bharat won the trophy and has conjointly won gold at the next seven Asian Games in port in 1994, Bangkok in 1998, Busan in 2002, Doha in 2006, port in 2010 and Chemulpo in 2014. [6]

It was originally meant to develop self defence, additionally to responses to attack, and reflexes of counter attack by people, and by teams or groups. it's a rather easy and cheap game, and neither needs a colossal parcel of land, nor any pricy instrumentation. This explains the recognition of the sport in rural Republic of India. Kabaddi is vie everywhere Asia with minor variations. Kabaddi is understood by varied names viz. Chedugudu or Hu-Tu-Tu in southern components of Republic of India, Hadudu (Men) and Chu - Kit-Kit (women) in Japanese Republic of India, and Kabaddi in northern Republic of India. the game is additionally fashionable in Asian nation, Bangladesh, Sri Lanka, Japan and West Pakistan.

Kabaddi is that the solely game wherever India's ascendance within the Asian Games is unrestrained. Kabaddi was enclosed in eleventh Asian Games at Beijing, China in 1990. Bharat has won Kabaddi gold in each Asian Games unionized once the inclusion of this game. However, quality of this game within the country is somewhere restricted to rural population.

Bhomik (1997) conducted a comparative study on elect physiological parameters between football game and Kabaddi players. the aim of the study was to match and distinction the chosen physiological parameters between football game and Kabaddi players. Total thirty players from the Kabaddi and football game (15 from each) were elect haphazardly and solely from the extramural terms of Amravati University. The physiological parameters elect as criterion were pressure, diagnostic test and resting vital sign. The "t" take a look at was computed to seek out the importance variations between the mean. It was concluded that Kabaddi players were considerably superior in diagnostic test whereas football game players were considerably superior in resting vital sign as compared to their counterpart however just in case of pressure non-significance variations were found between the two teams. [7]

Kabaddi in Today's India :

Kabaddi was given the national standing of a game in Republic of India in 1918. The state of geographic region is licenced with upbringing the sport to a national platform. Consequently, the quality set of rules and laws for the sport were developed within the same year. However, the principles and laws were dropped at print solely when many years, in 1923. throughout a similar year, associate All Republic of India Tournament for kabaddi was organized at Baroda, whereby the players strictly followed the principles and laws developed for the sport. Since then, the sport has come back a protracted manner. Its quality enhanced and variety of tournaments were organized at national level, throughout the country. The sport was introduced at the 1938 Indian Olympic Games control at urban center, that fetched it international recognition.

Kabaddi is actually associate degree Indian game, that commands immense quality within the Asian country still as its back country. In India, kabaddi is in style in numerous names. Within the southern elements of Asian country, the sport is spoken as Chedugudu or Hu-Tu-Tu. In Asian country, it's lovingly referred to as Hadudu (for men) and Kit-Kit (for women). the sport is understood as Kabaddi in northern Asian country. Breathe management, raid, dodging and movement of hand and feet area unit the essential skills that one should acquire, so as to play kabaddi. The player should acquire power and learn each offensive and defensive skill to surpass within the game, which combines the characteristics of football game and wrestling. Scan on to explore the history of kabaddi in Asian country.

Kabaddi World cup was first played in 2004 and then in 2007 and 2010. So far India is the unbeaten champion in Kabaddi World Cup. The popularity of kabaddi has hyperbolic over the passing years, from being a well-liked game within the rural Republic of India to a sport recognized at the

national level. Variety of championships, each at the national and international level, is organized for kabaddi, whereby the Indian national kabaddi team has delivered outstanding performances. The introduction of Federation Cup Kabaddi matches in 1981 may be a milestone within the history of kabaddi in India.

Perspective towards Kabaddi :

Some individual members represent a team; they need completely different responsibilities within the team. Evaluating the performances of a personal member of a team is incredibly sophisticated. So, the assessment of the performance of a personal player in an exceedingly team game is really a very complicated higher cognitive process downside. However this assessment is important for the analysis work about formulate the ways to pick out a player and training him/her. Actually, the assessment of individual performance in a very team game is crucial to determine the impact of psychological, physical and social science factors on performance of a player therein game. Kabaddi, a sport of Indian origin however that has remained on the fringes of our sporting consciousness despite winning gold medals at the Asian Games, is trying to find avenues to become a part of the athletic competition. Having caught the flowery of alternative Asian as well as European nations, efforts are unit on to form it a worldwide sport.

Conclusion :

Performance in kabaddi depends to an oversized extent on good shape. Sports trainers focus on rising the physical fitness and motor skills of a player, i.e., speed, strength, endurance, flexibility. Rising the good shape of a player is also known as learning. A sound learning programme forms the foremost vital part of coaching any sports person. Conditioning or good shape is categorised into general and specific fitness. General fitness refers to the common qualities needed for any sports person regardless of the game i.e., motor qualities like strength, endurance, flexibility and coordination ability. Each sport demands motor talents at varied levels higher than the common. Specific fitness is achieved once a player acquires the specified motor ability at the intense level for the actual sport. As an example, specific fitness in kabaddi is with regard to strength, speed and co-ordination.

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Roll Of Physical Activity In The Prevention Of Obesity Of School Children Studying In Yavatmal City

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Abstract:

Purpose The main purpose of the present study to find out the knowledge about the physical activities, obesity and its prevention of school children. **Significance** Findings of this study may assist the knowledge of obesity in school children. Findings of this study may assist the knowledge of to prevent the obesity. Findings of this study may assist the knowledge of physical activity in school children. **Objectives:** To assess knowledge towards physical activity. To assess knowledge to prevent the obesity. In the beginning researcher hypothesized that, school going children having knowledge about the physical activity and obesity, also they know the roll of physical activity to prevent the obesity. **Source** For the present study school going students from Yavatmal City were the source of data. **Selection** The researcher selected the 100 school going students from Yavatmal City including boys and girls. **Sampling** The subject was selected by using simple random sampling method. **Tools to be used** The questionnaires was prepared and distribute to school going students. **Statistical Analysis** The various responses received in terms of roll of physical activity to prevent the obesity were analyzed using the descriptive technique of percent From the above it was found that the physical activity plays important roll to prevent the obesity and they are having good physical activity, playing activity, also healthy eating knowledge. Hence the researcher hypothesis is accepted. **Conclusion** Most of the school going children wakeup in the morning for regular exercise. They plays field games daily. Most of the school going children take meal not more than 2 times in a day excluding excessive oil/ghee. Even they like fast food they dose not eat fast food daily. Fruits and vegetables are included in their daily meal. Most of the school going children eat salad in meal. Most of the school going children dose not take meal / snack just before bedtime. All children say that Physical Activity plays important roll to prevent the Obesity

Key Word: Physical Activity, Prevention, Obesity

Introduction:

In the Modern world games and sports are popularly planned and executed to promote social harmony, discipline and increased productivity. These activities develop student's rights, attitudes, values, and help them to grow into balanced, integrated and healthy citizens. Charles A. Bucher has stated that physical education should aim to provide skilled leadership and adequate facilities which will afford to an opportunity for the individual or a group to act in situations which are physically wholesome, mentally stimulating and satisfying and socially sound. Harold M. Barrow has stated that physical education should have a vital role to play leading to a healthy mind in a healthy body. The participation and outcome in games and sports become a vital yard stick to measure the care of a nation towards its youth.

Physical education trends have developed recently to incorporate a greater variety of activities. Introducing students to activities like bowling, walking/hiking, or Frisbee at an early age can help students develop good activity habits that will carry over into adulthood. Some teachers have even begun to incorporate stress-reduction techniques such as yoga and deep-breathing. Teaching non-traditional sports to students may also provide the necessary motivation for students to increase their activity, and can help students learn about different cultures. For example, while teaching a unit about lacrosse (in, say, Arizona, USA), students can also learn a little bit about the Native American cultures of the Northeast and Eastern Canada, where lacrosse originated. Teaching non-traditional (or non-native) sports provides a great opportunity to integrate academic concepts from other subjects as well (social studies from the example above), which may now be required of many P.E. teachers. There are four aspects of P.E. which is physical, mental, social, and emotional.

Elite performance in sports does not merely depend upon systematic training of physical, physiological variables and technical aspects of sport but, it also demand training of psychological characteristics of the sports man for success.

Materials & Method

Statement: Research also suggests that differences in specific factors may predispose a person to excessive weight gain. These include eating patterns, environment, food packaging, and body image and biochemical differences related to resting metabolic rate. Hence the present study is stated as "**Roll of Physical Activity in the Prevention of Obesity of School Children Studying in Yavatmal City**".

Purpose The main purpose of the present study to find out the knowledge about the physical activities, obesity and its prevention of school children. **Significance** Findings of this study may assist the knowledge of obesity in school children.² Findings of this study may assist the knowledge of to prevent the obesity.³ Findings of this study may assist the knowledge of physical activity in school children.

Objectives : To assess knowledge towards physical activity. 2 To assess knowledge to prevent the obesity.

Hypothesis : hypothesised that, school going children having knowledge about the physical activity and obesity, also they know the roll of physical activity to prevent the obesity. **Scope** The study was delimited to the school going students from Yavatmal city. Further study was delimited to the 100 school going students including boys and girls. Age of the selected students ranged between 12 to 16 years. Questionnaire was prepared by researcher under the guidance of supervisor and professionals to collect the data.

Design Of The Study

Source For the present study school going students from Yavatmal City were the source of data.

Selection The researcher selected the 100 school going students from Yavatmal City including boys and girls. **Sampling** The subject was selected by using simple random sampling method. **Tools to be used** The questionnaires were prepared and distribute to school going students.

Statistical Analysis of Data

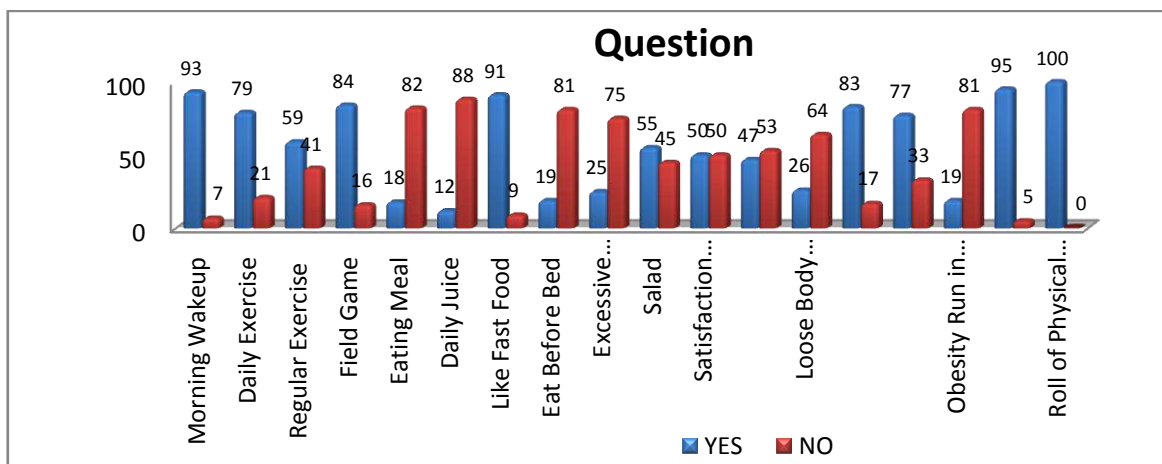
The various responses received in terms of roll of physical activity to prevent the obesity were analyzed using the descriptive technique of percent

Analysis And Interpretation

Statistical Treatment After collecting the data the required statistical percentile analysis was employed.

QUESTON	YES	NO
Morning Wakeup	93%	7%
Daily Exercise	79%	21%
Regular Exercise	59%	41%
Field Game	84	16
Eating Meal	18	82
Daily Juice	12	88
Like Fast Food	91	9
Eat Before Bed	19	81
Excessive Oil/Ghee	25	75
Salad	55	45
Satisfaction with Weight	50	50
Feel Happy to Eat Food	47	53
Loose Body Weight	26	64

Fast Food ResP. Obesity	83	17
Watching TV/Games	77	33
Obesity Run in Your Family	19	81
Fruits & Vegetables	95	5
Roll of Physical Activity	100	0



- Above table reveal that, 93% respondents wakeup in the morning and 7% not wakeup early in the morning.
- Above table reveal that, 79% school going children do exercises and 21% not done exercise.
- Above table reveal that, 60% school going children do exercises more than 30 min and 21% school going children not done or done exercises less than 30 min.
- Above table reveal that, 59% school going children do regular exercises and 41% school going children not done regular exercise.
- Above table reveal that, 84% school going children play filed game daily and 16% school going children not play filed game.
- Above table reveal that, 18% school going children eat meal more than 2 times in a day and 82% children eat meal 2 times in a day.
- Above table reveal that, 12% children drink juice daily and 88% children dose not drink juice daily.
- Above table reveal that, 91% children like fast food and 9% children dose not like fast food.
- Above table reveal that, 32% children eat fast food more than 3 times in a week and 68% children not eat fast food more than 3 times in a week.
- Above table reveal that, 19% children eat just before bedtime and 81% children not eat just before bedtime.
- Above table reveal that, 25% children eat meal with excessive oil/ghee and 75% children not eat meal with excessive oil/ghee.
- Above table reveal that, 55% children eat meal with salad and 45% children eat meal without salad.
- Above table reveal that, 50% children are satisfied with their weight and 50% children are not satisfied with their weight.
- Above table reveal that, 47% children feel happy to eat food to make your stomach full and 53% children are not feel happy to eat food to make your stomach full.
- Above table reveal that, 26% children feel that want to loose the body weight and 64% children not feel that want to loose the body weight
- Above table reveal that, 83% children believe that fast food is one of the important reason for obesity and 17% children can not believe that fast food is one of the important reason for obesity
- Above table reveal that, 77% children watch TV / Play Video Games / Computer more than the 1 hour in a day and 33% children not watch TV / Play Video Games / Computer more than the 1 hour in a day

- Above table reveal that, 19% children said that obesity runs in our family and 81% children said that obesity not runs in our family
- Above table reveal that, 95% children said that fruits and vegetables included as a part of daily meal and 5% children said that fruits and vegetables included is not a part of daily meal
- Above table reveal that, 100% children i.e. all school going children think that physical activity plays important roll to prevent the obesity.

Discussion of Findings

From the above tables it was observed that, school going children having good physical activity, playing activity, also healthy eating knowledge.

Also it was found that, school going children believe that physical activity plays important roll to prevent the obesity.

Discussion of Hypothesis

In the beginning researcher hypothesised that, school going children having knowledge about the physical activity and obesity, also they know the roll of physical activity to prevent the obesity.

From the above tables and findings it was found that the physical activity plays important roll to prevent the obesity and they are having good physical activity, playing activity, also healthy eating knowledge. Hence the researcher hypothesis is accepted.

Conclusion

On the basis of analysis and findings, the following conclusions were drawn:

- Most of the school going children wakeup in the morning for regular exercise
- They plays field games daily.
- Most of the school going children take meal not more than 2 times in a day excluding excessive oil/ghee.
- Even they like fast food they dose not eat fast food daily.
- Fruits and vegetables are included in their daily meal.
- Most of the school going children eat salad in meal.
- Most of the school going children dose not take meal / snack just before bedtime.
- All children say that Physical Activity plays important roll to prevent the Obesity

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Role of Advance Technology in Phy. Education

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Introduction:-

In sports activities, technology will provide the effective techniques, tactics and strategies by using web based teaching learning process chatting with experts, for sharing knowledge about sport medicine information we can also talk the knowledge of new rules from experts Information about games sports and other physical Education Activities to get students moving and to help teachers and coaches to plan new activities for their students

In a modern and technical era in the field of physical education and sports it is most to use new technique, new equipment and new tools to improve the standards and performance. ICT has changed the development planning and management of coaching in physical education and sports. ICT available for all any time and anywhere. Implementation of ICT in physical education and sports are enhanced the performance of players and achieving best level.

Defination of ICT:-

ICT stand for information and communication technologies. It stands for “set of technological tools and resources used to communicate, and to create disseminate, store and manage information”

How ICT is useful:-

Information technology provides facilities for chat, Email, pedometers, Digital video camera, heart rate monitors, coach my video etc.

Some Technological Tools:-

Pedometers:-

There apparatus are mechanical sensors to count stept and can easily be incorporated in physical Education. They are portable and can be worn under the belt and kept the whole day. Students can wear a pedometer and receive immediate and continuous feedback regarding their activity level. By using the pedometer students will be able do see progress towards set goal and consequently will be more motivated in the classes.

Heart Rate Monotors:-

The heart rate monitor will provide real time data that will also students to see how differ exercises and activities affect the heart rate. Hence the heart rate monitor is a convenient apparatus that allows students do use up to date technology. Charts of manimum heart rate can be made for each student and track increase or decrease in their heart rate.

Digital Video camera and visual analysis Software:-

The use of the motion analysis system will surely enhance many areas of the physical education curriculum both in research and teaching. Using digital video camera has indeed simplified the collection of data. These results can be imported to carry out interactive multimedia presentation do provide students with the better understanding to the importance of breaking skills into components and the consequence of suitable variation in techniques. The visual analysis software allows students to view captured movement and to analyze them.

Coach My Video:-

The best thing about this device is that you can have it on split screen, therefore comparing two performers at the same time. You can also compare your own performance to an elite athlete by downloading the clip from YouTube. It allows you to pause and rewind and compare both performance in slaw motion. This app is easy to use and can be set up instantly in order for students do analyze their performance straight away.

Sprint Timer:-

Ideal for athletics and running events. It can be used this for non doers to record performances and then show students their finishing position over the line when walking back to the start line to have another go.

Coachpro:-

This app has every playing court or pitch drawn out for you. It has counters that represent players. You can move these around to any position, draw lines to show direction of movement and

also film short movements for teams to look at. It is a great visual tool for team takes at half time or in extracurricular clubs when coaching.

Sports training:-

Computers help gauge an athlete's performance during a specific training regimen. Trainers for sports team can put a player's height, weight and body model into a computer and develop a training program that best fits her needs. Trainers can also put sensors and equipment onto a player during training, allowing the computer to register result while the player trains.

Recording Information :- Official statistics keepers and some scouts use computers to record statistics, take notes and chat online while attending and working at a sports event.

Analyzing Movement :- The best athletes pay close attention to details. Computers can also record video and allow people to study their specific poor habits.

Scoreboard :- While some scoreboards are manually updated, most professional sport venues have very modern scoreboards that are programmed to update statistics and information immediately after the information is entered into the computer.

Sports Media:-

Writers use computers to complete research on their stories, while video editors use various applications to create vignettes and film pieces about their subjects. Larger sports media outlets such as ESPN have used computer technology to create applications such as their "ESPN Axis" field view. This program rotates the field of view at any movement to give a different visual perception of the action at the time.

Chat through the Internet:-

Interactive chat impressed communication with experts and colleagues and community members. Team members, class and course made from different locations can easily conduct an online meeting. Colleagues gather to get into intimate groups and discuss issues related to physical education.

Flip Video Camera:-

The first and most essential tool for physical education teacher. No other camera is as simple to record video footage, making it snap to film and analyze sporting techniques and game play.

Stop watch/clock:-

Use the inbuilt stop watch and alarm to help organize and time training sessions. In this example, students move from passive participation within a session of the role trainers, as they are forced to organize the session.

ICT tools for physical Education needs are as below Advantage:-

- 1) Through ICT, images can easily be used in teaching and improving the retentive memory of students
- 2) Through ICT, teachers can easily explain the complex instruction and ensure students comprehension.
- 3) Through ICT, teachers are able to create interactive classes and make the lessons more enjoyable, which could improve students attendance and concentration.

Disadvantage:-

- 1) Setting up the devices can be very troublesome
- 2) Hard for teachers to use with a lack of experience using ICT, tools.
- 3) The expensive to afford.

Conclusion:-

The use of ICT has strengthened the student and teacher of physical education. They must use ICT application daily or several times per week. The ICT application can improve the learning process in physical education. The students and the educators can both benefit from it.

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Effects Of Yoga On Human Body

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Abstract

Yoga, an ages long Indian tradition, has spread its wing all over the world in last few years and that too rapidly. We Indians too have recognized its true value a bit late. In Vedic Sanskrit, the more commonly used, literal meaning of the Sanskrit word yoga which is "yoke", "to join", "to unite", or "to attach" from the root yuj, already had a much more figurative sense, where the yoking or harnessing of oxen or horses takes on broader meanings such as "employment, use, application, performance" (compare the figurative uses of "to harness" as in "to put something to some use"). All further developments of the sense of this word are post-Vedic. More prosaic moods such as "exertion", "Endeavour", "zeal" and "diligence" are also found in Epic Sanskrit. Yoga is a traditional method of meditation developed by the saints of ancient India. They practiced yoga as an effective method of controlling their mind and bodily activities. Yoga in Daily Life is a system of practice consisting of eight levels of development in the areas of physical, mental, social and spiritual health. When the body is physically healthy, the mind is clear, focused and stress is under control. The benefits of yoga are extensive. Daily exercises are a great way to help relieve the stress of your day and can bring a sense of well-being to your life. Yoga can help reduce the effects of stress on your body. Daily exercises of yoga can help ease the aches and pains of the body. You will learn to take deeper, slower breaths with daily exercises of yoga. The benefits of yoga will include lengthening the muscles, tendons, and ligaments in your body to help you become more flexible. Daily exercises are always recommended, but yoga helps reduce the level of Cholesterol in your body. This aids in weight loss and fat burning. The benefits of yoga are very far reaching indeed. There is no one other exercise avenue you can take that will address all of these issues in one simple session. For those of you that think yoga is too easy, I encourage you to try one class. You may find it is just what you are looking for.

Key Words: Yoga, sports, society.

Introduction

In Vedic Sanskrit, the more commonly used, literal meaning of the Sanskrit word *yoga* which is "yoke", "to join", "to unite", or "to attach" from the root *yuj*, already had a much more figurative sense, where the yoking or harnessing of oxen or horses takes on broader meanings such as "employment, use, application, performance" (compare the figurative uses of "to harness" as in "to put something to some use"). All further developments of the sense of this word are post-Vedic. More prosaic moods such as "exertion", "Endeavour", "zeal" and "diligence" are also found in Epic Sanskrit.

Importance of Yoga

Yoga is a traditional method of meditation developed by the saints of ancient India. They practiced yoga as an effective method of controlling their mind and bodily activities. Yoga in Daily Life is a system of practice consisting of eight levels of development in the areas of physical, mental, social and spiritual health. When the body is physically healthy, the mind is clear, focused and stress is under control. This gives the space to connect with loved ones and maintain socially healthy relationships. When you are healthy you are in touch with your inner Self, with others and your surroundings on a much deeper level, which adds to your spiritual health. Yoga increases the flexibility of the spine, improves body's physical condition and heightened awareness to the importance of relaxation. It has been emphasized that each exercise be practiced slowly, coordinating movement with the breath, pausing motionless in each position and always with full concentration. Yoga teaches you to focus on breathing while you hold the poses. This attention to breath is calming it dissolves stress and anxiety. Yoga can help cure insomnia, as regular yoga practice leads to better and deeper sleep. Yoga can help fight fatigue and maintain your energy throughout the day. Yoga is an effective treatment for a variety of autoimmune diseases because it can reduce the symptoms these diseases often cause, such as stiffness, malaise, fatigue, and weakness. Because yoga is a form of meditation, it results in a sense of inner peace and purpose, which has far-reaching health benefits.

Effects of Yoga

The Effects of yoga are extensive. Not only does yoga affect the physical aspect of the body, it addresses the mind and spirit as well. Daily exercises are a great way to help relieve the stress of your day and can bring a sense of well-being to your life. Here are the top ten benefits of yoga.

1. Stress Relief

Yoga can help reduce the effects of stress on your body. One of the benefits of yoga is that it encourages relaxation and can lower the amount of cortisol in your body.

2. Pain Relief

Daily exercises of yoga can help ease the aches and pains of the body. Many people with very serious diseases have reported less pain after these daily exercises, such as asanas or meditation.

3. Better Breathing

You will learn to take deeper, slower breaths with daily exercises of yoga. It will help to increase your lung function and set off the body's relaxation response. This can be one of the most powerful benefits of yoga.

4. Flexibility

You will notice your level of flexibility will increase, which will help with your range of motion. Sometimes in the yoga daily exercises, people cannot even touch their toes. The benefits of yoga will include lengthening the muscles, tendons, and ligaments in your body to help you become more flexible.

5. Increased Strength

Yoga poses use all the muscles in your body and help you increase your strength level from head to toe. The benefits of yoga and daily exercises will help you strengthen your muscles close to the bones, which increase the support of your skeletal system as well.

6. Weight Management

You will see the benefits of yoga begin to affect your scale. Daily exercises are always recommended, but yoga helps reduce the level of cortisol in your body. This aids in weight loss and fat burning.

7. Improved Circulation

Yoga will help improve your body's circulation. In turn, with daily exercises, you will see the benefits of yoga with lowered blood pressure and pulse rates.

8. Cardiovascular Conditioning

Even the most gentle style of yoga will help to lower your resting heart rate and increase your overall endurance. This is one of the important benefits of yoga to help improve the amount of oxygen taken in during the daily exercises.

9. Focus on the Present

You can have greater coordination, memory skills, reaction times, and improved concentration skills by utilizing yoga for daily exercises. These benefits of yoga will extend far out of the yoga center.

10. Inner Peace

What more could you want. This is one of the primary reasons that people do daily exercises of yoga. This is one of the most important benefits of yoga and is also one of them or easy ones to attain.

Conclusion

In Vedic Sanskrit, the more commonly used, literal meaning of the Sanskrit word *yoga* which is "yoke", "to join", "to unite", or "to attach" from the root *yuj*, already had a much more figurative sense. The yoking or harnessing of oxen or horses takes on broader meanings such as "employment, use, application, performance". All further developments of the sense of this word are post-Vedic. More prosaic moods such as "exertion", "Endeavour", "zeal" and "diligence" are also found in Epic Sanskrit. The benefits of yoga are very far reaching indeed. There is no one other exercise avenue you can take that will address all of these issues in one simple session. For those of you that think yoga is too easy, I encourage you to try one class. You may find it is just what you are looking for.

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Scope Of Management In Physical Education

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Abstract

Physical education is wedded to educating people how to be healthy, fit, skilful and strong. Sport stresses upon performance and excellence. Management of programmes, materials, equipment, facilities and personnel is vital to both. The present mediocrity in management may lead to variety of administration and human problems. Sport management needs to be highly pragmatic and humanistic.

Keywords: Sports Management, Physical education and Facilities

Introduction:

The rapid growth of science and technology, and the need for greater human input in industry, education, security, defence, business, sport etc. have brought about revolution in management with a view to minimize losses (in energy, cost and material) and maximize gains (output). Although most of these areas of human endeavour have hardly any thing in common, the basic concepts of management for each one of them are almost the same. All human activity is interlinked. It is difficult, if not impossible, to achieve objectives of an endeavour without a holistic approach.

Objective Of The Study:

To know the scope of sports management in physical education and sports.

Review Of Literature:

Adair (2014) describe the most common functions ascribed to sports management in an organization are planning, organizing, staffing (leading), directing, controlling, evaluating, communication and decision making similarly **kamlesh (2016)** opined that sports management official face serve constraints and limitation. They have 'friends allies and enemies' within and outside the sports scope of sports management in physical education and sports.

Scope Of Management In Physical Education And Sports

Personnel Management

This covers types of leadership, qualifications, selection, manpower requirement, planning, organization, development and placement, training, monitoring, behavioural audit. Participation, public relations inservice training, supervision, evaluation of various personnel involved in physical education and sport.

Programme Development

this covers development objectives of physical education, goal-setting, steps in the development of programme – curriculum, syllabus, teachers' participation, considerations in programme planning (theory, activity, competition- intramurals, extramurals –research, extension services), evaluation in terms of achievement of goals and objectives.

Financial Management

This aspect consider business institutions, service institutions, financial aspects i.e. source, resource, and allotment of funds, Budget-perspective planning, long and short-term goals, basic of planning, guidelines, expenditure control measures, audit and accounts.

Material Management

This is concerned with equipment materials equipment needs in terms of objectives and activities; purchasing policies, principles and procedures, considerations in selecting equipment, the care and maintenance of equipment, storing (indoors, outdoors), handling security, issue, inventory, and registers; modification (improvisation), standardization and modernization of equipment and materials; disposal procedures.

Performance Management

this deals with sports competition, fixtures, preparation and participation, prognostics and selective diagnostics, performance dynamics and evaluation, psycho-dynamics and sport; ethical standards for teachers/coaches and athletes, maintenance of performance records, honours/colour boards, reward-award records.

Office Management

This spreads over fundamental procedures of office management, administration (office) personnel and interpersonal relationships, staff and management, correspondence, maintenance of office records, register and file etc.

Infrastructure Management

this is connected with playfield engineering, basic concept and planning, concentration, up-keep and maintenance of playfield, indoor halls, gymnasia, swimming pools, velodromes, camp sites; security, safety and health considerations for infrastructure, multipurpose use of facilities ; futuristic approach to the construction and use of sport infrastructure, facilities for public.

Conclusion :

Sport management is now gradually developing into a science which pre-purposes qualitative change in physical educator's attitude in general and an need for specialized training for those who wish to take up managerial jobs.

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Effect of Selected Yoga Exercises on the Performance of Inter Collegiate Handball Players

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Abstract:

The aim of the study was to find out the effect of selected yoga exercises on the performance of inter collegiate Handball Players of Sant Gadge Baba Amravati University, Amravati. In the current investigation, 40 male students were selected at random by simple random sampling technique, from Inter Collegiate Handball Players of Sant Gadge Baba Amravati University, Amravati. 20 male students were selected for control group and another 20 male students were selected for experimental group during the academic year 2016-2017. The age group was ranging from 18-25 years. Eight weeks of selected yoga exercises training programmes were given to the experimental group. The control group was not permissible to participate in any of the training programmes. The subjects were given full administration of the tests which was used for the collection of data in the study. The data for Performance was collected by Johnson Basketball test. After that collected data was put into Microsoft Excel to develop Master Chart and then 't' test was used for the statistical treatment. To test the hypothesis the level of significance was set at 0.05 level of confidence, after the statistical analysis of data related to the selected yoga exercises on the performance of inter collegiate Handball Players., it was found that there would be insignificant difference between the selected yoga exercises on the performance of inter collegiate Handball Players. Hence the Researchers Pre-assumed Hypothesis was rejected

Keywords: Yoga Exercises, Performance, Handball Players.

Introduction:

Human body is like a complex and delicate machine, which comprises several small parts. A slight malfunctioning of one part leads to breakdown of the machine. In a similar way, if such a situation arises in human body, it also leads to malfunctioning of the body. Exercises can play a significant role in keeping the society, community and nation, wealthy. If the citizens of a country are healthy, the country is sure to touch heights in every fact of life, and the country healthy generation can change highest mark in various fields and thereby enable their country to win laurels and glory at the international level. Exercise is a bodily movement performed in order to develop or maintain physical fitness and overall health. Exercise is any bodily movement that leads to physical exertion of sufficient intensity, duration and frequency to achieve or maintain fitness, or other health or athletic objectives.

Yoga

Yoga can be performed for therapeutic exercises. By gently stretching the muscles, massaging the internal organs and toning the nerves throughout the body, many diseases, even the so-called 'incurable', can be eliminated or eased. It has a deeper significance and value in the development of the physical, mental and spiritual personality. Yogasana has been practiced for thousands of years for keeping the human body free from diseases. Yoga is fact, a scientific system of physio-therapy. Many incurable and long standing diseases can be cured through yoga. The yoga treatment is perfectly scientific. It is an auto-treatment method.

Objectives:

The aim of the study was to find out the effect of selected yoga exercises on the performance of inter collegiate Handball Players of Sant Gadge Baba Amravati University, Amravati.

Hypothesis:

On the basis of literature searched and the researcher's own perception it was hypothesized that there would be significant effect of selected yoga exercises on the performance of inter collegiate Handball Players of Sant Gadge Baba Amravati University.

Methodology:

Source of Data:

For the present study subjects were selected from inter collegiate Handball Players of Sant Gadge Baba Amravati University, Amravati for collection of data.

Selection of Subjects:

Forty male subjects were selected for the collection of data from Inter Collegiate Players of Sant Gadge Baba Amravati University, Amravati. All the subjects were divided into two groups consisting of 20 subjects each. The age group was ranging from 18-25years.

Sampling Method:

The subjects were being selected by using simple random sampling method.

Collection of Data:

Eight weeks of selected yoga exercises training programmer were given to the experimental group. The control group was not permissible to participate in any of the training programmers. The subjects were given full administration of the tests which was used for the collection of data in the study. The data for Performance was collected by Johnson Basketball test. After that collected data was put into Microsoft Excel to develop Master Chart and then 't' test was used for the statistical treatment.

Experimental procedure of Training Design

S. No.	Name of Group	Type of Group	Type of Training
1.	A	Experimental	Selected Yoga exercises.
2.	B	Control	No Training

Significance:

To test the hypothesis the level of significance was set at 0.05 level of confidence which was considered adequate and reliable for the purpose of this study.

Analysis of the Data:

After the collection of data from Inter Collegiate Handball Players of Sant Gadge Baba Amravati University, Amravati, the raw data were converted into standard one by using a statistical technique 't' test for testing of hypothesis.

Table No. 1
Performance between Pre and Post Test of Control Group

Control Group	Mean	S.D.	Mean Difference	Degree of freedom	O.T	Tabulated 't'
Pre. Test	151	15.16	0.8	38	0.37	2.02
Post Test	149.50	13.42				

Table No. 1: indicates that the mean of Control Group of Pre .Test is 151 which is greater than the mean of Post Test which is 149.50. So this mean difference is found as 0.8. The calculated value of 't' is found as 0.37 which is less than tabulated 't' which is 2.02 at 0.05 level of significance. Hence the hypothesis which was given by the researcher is rejected.

Table No. 2
Performance between Pre and Post Test of Experimental Group

Experimental Group	Mean	S.D.	Mean Difference	Degree of freedom	O.T	Tabulated 't'
Pre. Test	151	21.50	4.36	38	0.34	2.02
Post Test	155.36	19.60				

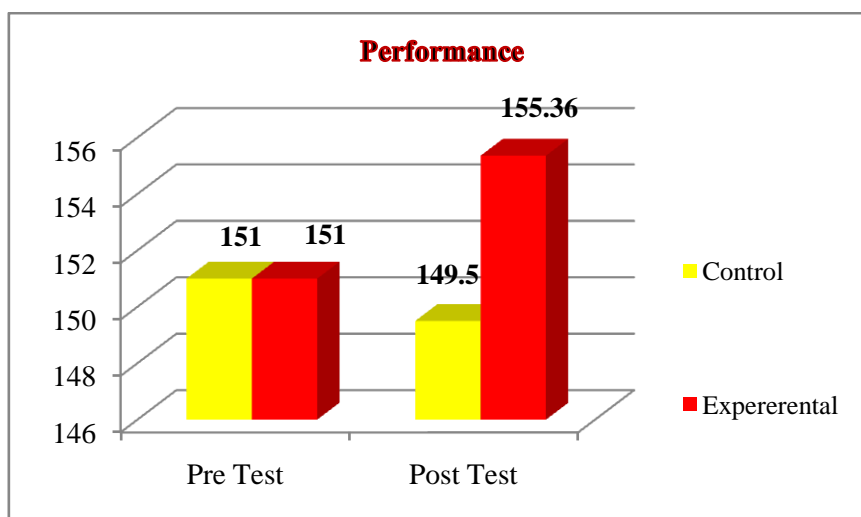
Table No. 2: indicates that the mean of Experimental Group of Pre. Test is 151 which is less than the mean of Post Test, which is 155.36. So this mean difference is found as 4.36. The calculated value of ‘t’ is found as 0.34 which is less than tabulated ‘t’ which is 2.02 at 0.05 level of significance. Hence the hypothesis which was given by the researcher is rejected.

Table No. 3
Performance between Post Test of Control and Experimental Group

Group	Mean	S.D.	Mean Difference	Degree of freedom	O.T	Tabulated ‘t’
Control	149.50	13.42	5.03	38	0.96	2.02
Experimental	155.36	19.60				

Table No. 1: indicates that the mean of Control Group of Post Test is 149.50 which is less than the mean of Experimental Group of Post Test which is 155.36. So this mean difference is found as 5.03. The calculated value of ‘t’ is found as 0.96 which is less than tabulated ‘t’ which is 2.02 at 0.05 level of significance. Hence the hypothesis which was given by the researcher is rejected.

Graph-1
Graphical Representation of Mean Difference between Pre and Post Test of Control and Experimental Group for Performance



Conclusion:

In the beginning of this study it was hypothesized that there would be significant effect of selected yoga exercises on the performance of inter collegiate Handball Players of Sant Gadge Baba Amravati University. After the statistical analyses of data related to the selected yoga exercises on the performance of inter collegiate Handball Players it was found that there would be insignificant difference between the selected yoga exercises on the performance of inter collegiate Handball Players. Hence the Researchers Pre-assumed Hypothesis is rejected.

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Discipline In Sports Training

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Discipline means training of the mind and character. It is obedience to rules and an orderly behavior. It also refers to the practices involved in to regulate the human behavior accordance to a set of pre-determined rules.

The absence of discipline brings disorder and chaos. There are some rules that control our activities. If we do not respect these rules, our life will be like a boat without the boatman. If we do not obey our parents at home, our teachers at school and the referee or the umpire in the playground, we can imagine what will happen. So both our parents and the teachers are very anxious to make us see the need for discipline. They want us to grow up like disciplined soldiers.

In the armed forces discipline is everything. Without discipline the army is a rabble. Like them we all must be disciplined, so that everybody can be proud of us.

Sport is an activity involving physical exertion and skill in which an individual or team competes against another or others for entertainment. Discipline is the practice of training people to obey rules or a code of behavior, using punishment to correct disobedience... etc

All coaches know that this is needed, most think they have it and only a very few understand what it really is and its mechanism. Discipline a key element in progressing and sustaining motivated hard-working sportsmen/women & teams and is commonly spoken about (very highly in certain instances) and widely recognized as a key aspect of coaching, but yet again, isn't it the most common aspect neglected by coaches across the world? In fact the main objective of sport discipline is to enhance sport performance.

Sports discipline is also training to ensure proper behaviour, order, or calm organized conduct. However I have noticed that many label the acts of having athletes run until exhaustion, overtraining, and humiliating athletes with verbal degradation or in some cases using inappropriate language (filth), as discipline. Sadly this is not real sports discipline. Only activities that instill appropriate behaviour, willful adherence to authority or an environment of order should be considered effective discipline in the sport setting. We must remember two main concepts to **Sports Discipline** or **Coaching and training**.

Sports Training-

All activities which are part of human behavior were subject to a long-term development. Let us take throwing, which is regarded a basic motor activity, as an example. In the deep past, throwing was necessary for feeding and defense. At present, throwing has lost its importance as one of the above mentioned activities but it is involved in different sports to a great extent (e.g. athletics, handball, baseball, etc.). The task of a prehistoric hunter was to hit the target precisely to get food. The aim of a present-day athlete is to throw the javelin as far as possible. The result of the activity in both examples can be considered a performance. **Performance** is understood as an extent to which motor task is accomplished. With the prehistoric hunter, performance is evaluated dichotomically: hitting the target or missing and it is not restricted by any rules. In the case of the athlete, performance is evaluated following rules of the sports discipline which were set in advance, it is expressed by the length of the throw and is understood as a **sports performance**. An ability to achieve a given performance repeatedly is referred to as **efficiency**.

The aim of sports training is to achieve maximum individual or team efficiency in a selected sports discipline limited by rules.

Children need to be able to recognize the need for dedication in any activity in which they hope to succeed and further their ability. Coaches should be aware of this responsibility and set a positive role model. This can be achieved in a number of ways.

- 1) **Time keeping** – Coaches should always arrive well in advance of any session in order to prepare and greet their students. Sessions should also finish on time in order that parents do not need to wait around for session to be completed.
- 2) **Preparation** – Coaches should demonstrate that they are prepared and that the session programme is organized and mutual goals have been set.

- 3) **Communication** – Coaches need to be able to communicate their programme to their students and provide opportunities for feedback from their students and their parents.
- 4) **Discipline** – Coaches need to be able to maintain an environment of respect for all within their sessions.
- 5) Rules should be stated clearly and agreed upon
- 6) A warning should be given if a rule is broken
- 7) Discipline in sport should always be positive in focus, providing the structure and rules that allow participants to learn to set their own goals and strive for them. It should encourage young people to become more responsible for themselves and therefore more independent.

A number of steps can be taken in this regard including;

- 1) Attending some games and training sessions and talking about them afterwards.
- 2) Having a realistic expectation for your child and being aware of their personal goals.
- 3) Learning about the sport and supporting your child's involvement
- 4) Be prepared ,Coaches should also be well-prepared to avoid any problems that could arise during trainings or competitions. Every session should have concrete goals to ensure that everything is organized.

Ask any successful athlete about the key to their success and they're likely to mention discipline. Rightly so, discipline is an essential foundation for any sport. It builds an athlete's character to help them set their mind to achieve great things. Beyond sports, it is also instrumental to succeed in other areas of life.

Participating in sports early in life gives a lifelong sense of discipline in children. Coaches, in particular, play an important role in instilling discipline in young athletes. Coaches should be aware of this responsibility and show their athlete the benefits they can get from being disciplined.

Following The Coach –

They were asked to look back on their careers regarding motivation and self-discipline. Their early years were characterized by an inner motivation and the joy of doing sports.

As competing became more important, motivation changed to something extrinsic and self-discipline became more important: What will I have to do to be the best? "As a young athlete, it is easy to follow your coach blindly in regards to your development. In retrospect, the athletes wish they would have voiced their opinion more often. If the athletes had been more in control, they would have been in a better position to adjust their training program to make it more effective," Jordalen says.

According to the study, Norwegian winter sports athletes are driven by different forms of motivation and varying degrees of self-discipline. Both intrinsic and extrinsic motivational factors are important to be competitive in elite sports as well as strong self-discipline.

"The best athletes in their respective sports are extremely determined and demonstrate an extraordinary level of self-discipline. Also, self-reflection makes them able to identify what they need to change, how they should plan their schedules and which training programs are most effective," Jordalen concludes.

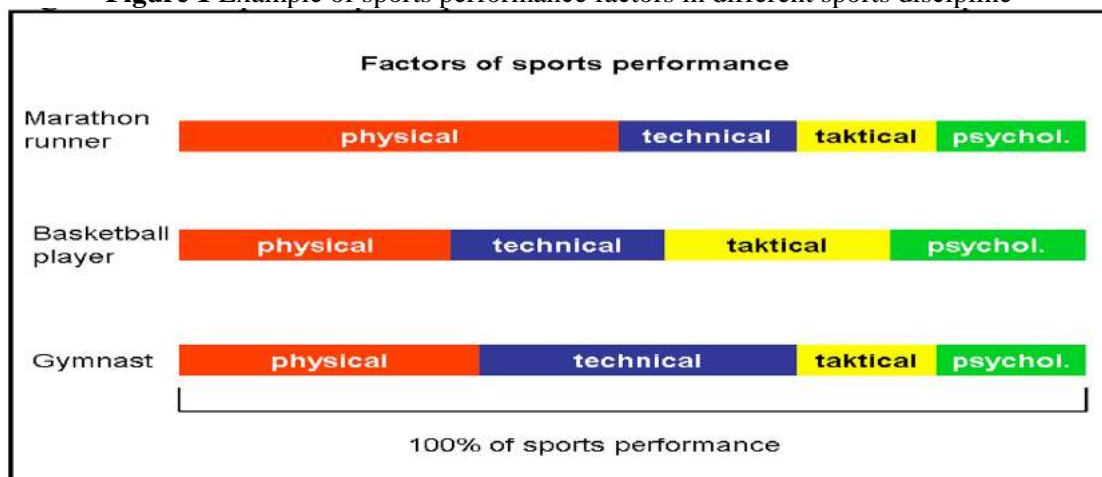
Be prepared.

Coaches should also be well-prepared to avoid any problems that could arise during trainings or competitions. Every session should have concrete goals to ensure that everything is organized.

The behaviour of your child and their attitude reflects the combination of coaching and your discussions about the values of sportsmanship you yourself promote. It is also important to talk and observe when bad sportsmanship occurs at events and discuss other ways that this could be dealt with. Always remember success is not the same thing as winning and failure is not the same thing as losing. And finally, the lessons learned by children through sport will shape the values and behaviour of the child throughout their adult life and entire sporting career.

And for those of you who are bent on winning – Competition is the spice of sports; but if you make spice the whole meal you'll be sick.

Figure 1 Example of sports performance factors in different sports discipline



For marathon runners, long-term endurance training is an important part of the year’s micro cycle, while with sports gymnastics development of this kind of endurance is not a priority.

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Sports Nutrition And Sports Performance

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Adarsh mahavidhayala Dhamangaon Rly.

Abstract

Sports Nutrition is the study and practice of nutrition and diet as it relates to athletic performance. Although an important part of many sports training regiments, it is most commonly considered in strength sports weight lifting and bodybuilding and endurance sports cycling, running, and triathlon. Sports nutrition is a science that produce or provides and maintain the food (or dietary ergogenic aids) necessary for health, growth and physical performance. It deals with nutrients such as vitamins, minerals, suppliments and organic substances such as carbohydrates, proteins and sugars in scrious athletes of all sort who want to make use of nutrition for their benefit.

Keywords: Exercise, sports, nutrition and performance

Introduction:

National Requirements are much greater for athletes than the non-athletes. Over the last few years a great understanding has been attained due to studies, about the effects of food consumption prior to and after the exercise or during competition. Even a healthy diet can be different in nutrients. So it is worth while understanding what is in the food and the best form in which to eat it. And the energy in take may be four fold higher for than that recommended for the average individual. The goals of sports nutrition try to answer the questions such as : what types of foods and fluids should be consumed ? what to eat and drink and when throughout the day?

Since the beginning of mankind, the idea of diet and exercise has always been in place. From the time when the ancient Greeks and Romans started the Olympic games, the athletes had their own special regimen for great performance. However, the view of sports nutrition today has much evolved from the ancient Olympic gladiators' meal plan. The importance of proper nutrition is of great interest to athletes and exercise for optimal performance and long term benefits. In addition to diet. Social and cultural influences, lifestyle habits, motivation and training determine successful athletes and performance an, " Understanding sports nutrition leads to optimal athletes performance and lifetime health benefits and can thus be evaluated by the intake of certain nutrient and supplements when exercising, by learning the way the body utilizes these materials and low these practices complement future diet and exercise of the individual.

Objective Of Study:

To know the role of sports nutrition in enhancing the performance of athletes.

Review Of Literature:

Murpy (2016) Shows that the coupling of exercise and proper diet is what produces a healthy lifestyle that can maintain the "prevention/management of {chronic disease such as} noninsulin-independent diabetes, hypertension, coronary heart disease, osteoporosis, obesity, mental health, colon cancers, stroke and back injury." Other physical activities. **Beruke (2017)** have found milk, especially skim milk and chocolate milk may be the new sports drink, as milk leads to protein the synthesis which boosts net muscle protein balance.

Diet Tips For Athletes

1. There is a need to consume fats and infact 20-25% of your energy should come from fats. If the fat intake would be less than that, it won't be able to make any contribution in boosting your performance level.
2. There is a need to cat food before, during and after your exercise session, as that helps to control blood glucose level, thereby helping in enhancing your sports performance.
3. When an athletes performs his/her sporting activity, lot of fluid loss takes place, which causes dehydration. Dehydration can eventually cause heat stroke. So it is vital to drink adequate water during and after your sports performance.
4. It is advisable for sportspersons to eat a balanced diet consisting of plenty of proteins, vitamins and minerals. Opt for complex carbohydrate food and the intake of fat should be in moderate quantities.

5. It is vital to plan out your pre exercising or sports meal that works best towards charging your energy. Limit the quantity of salt and simple sugar.
6. Don't change your diet plan before going in for your sports competition.
7. Fasting is not recommended for sportspersons, as it is likely to hamper their performance level. If you feel some kind of an uncomfot or pain in your abdomen or intestine, then you must have had a high fiber or high fat content food in your pre exercise/sports meal, so take care that it doesn't happen again.

Role of sports nutrition in enhancing performance.

First it improves performance by improving body composition, which increase speed, quickness, mobility, and strength. Second, it will help the speed of recovery, which will in turn create more capacity for practicing and competition as the body is becoming more fit and adjusted to the coupling of the good nutrition incorporated into the workout regimen. It will allow one to increase energy for both practice and competition, which will definitely help one's performance. Strategic diet will also increase immunity, allowing one to stay healthy and be able to continue and intensify practices and training. Most importantly, it will improve your overall health as proper health is essential to all aspects of life.

Conclusion :

An athlete's dietary regimen plays a vital part in accomplishing his/her goals because it allows the athlete to reach his/her maximum performance. This illustrates how an athlete should apply the necessary nutrition in order to benefit from training and to maximize his/her capability during exercise and activity. Thus, every sport and type of physical activity varies in its appropriate diet which benefits the athlete. Sports nutrition also consist of many different concerns such as the amount of certain foods and fluids one should consume that are specific to training.

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How Technology is changing contact Sports

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Introduction

Technology in contact sports has evolved in a very particular form in the past decades and especially over the past few years. A significant amount of technology is becoming portable and wireless and data is now often being made available in real time for coaches, trainers and sport scientists. This has supported the transition of technology from laboratory settings to practice fields, courts, and in some cases in official sport competitions.

A very recent example is the case of a partnership between Adidas and the Major League Soccer in the US in which the Adidas Mi Coach system has been approved and is currently being utilized by all MLS teams during practice sessions and during official competitions to track athletes' heart rate, speed, jump height, distance ran, and other data. This has been made possible with the use of miniaturized GPS, gyroscopes and accelerometers that have been embedded into a small system that is lodged in athletes' jerseys and in some cases in their cleats. This system has also been utilized by Rugby teams in Europe, North America and Oceania.

Tracking systems like Mi Coach and Under Armour³⁹ also assist an athletes' health maintenance through a number of analyses that can be made in regards to fatigue, overtraining and other important health related information with this information then being compared to their unique physical and medical conditions. With the goal to monitor contact sports athletes' health, another piece of technology has entered our courts, fields and rinks – these technologies have made it possible to track the intensity of head impacts experienced by athletes. This new device from Reebok, called Checklight, is a very small and flexible system that fits to the athlete's head – the device is lodged in a beanie; it is also a standalone system that doesn't need additional software or to be paired with another device, instead, it uses an LED indicator that displays a yellow signal in the event of a moderate impact to the head, or a red signal in the event of a more intense impact. The Reebok Checklight is a game changing device developed by MC10, which is a company that specializes in developing stretchable, flexible, thin, and small sensors that are designed to be wearable and virtually unnoticeable by the user. MC10 is currently developing multiple devices in this new area, including a system that will provide data on athletes' perspiration rate in real time. Within the same field Gatorade has developed and been working on analysis of sweat composition for each athlete in a team and implementing a personalized formula for rehydration for each team member according to the athletes' loss of fluids, electrolytes and minerals. This product can be seen in different sport teams and is going to be implemented during the 2014 FIFA World Cup.

The use of technology in contact sports has grown a lot within performance enhancement, injury prevention, injury recovery and athletes' health maintenance. The use of advanced high speed and high definition cameras, along with the development of biomechanical software has allowed teams to have an in depth view of athletes' movements. This detailed view may assist coaches to better understand a hockey athlete's kinetic link (chain of muscular, joints and body events) during a slap-shot, or a rugby player's penalty kick, or a soccer player's corner kick; this information is then used to improve speed, accuracy, but also to analyze possible indicators, like the imbalance of movement which may cause injury.

Another field of sport science and technology that has evolved significantly is neuro/physiology and neuro/biofeedback. With technological advances things that were only possible to be measured in the laboratory, like muscle activation, respiratory rhythms, and neurological activity are now available during practice and games, not only as a measure and assessment tool, but also as data that can be sent back to the athletes in real time. Devices like the FlexComp Infiniti from Thought Technology and the Nexus-10 from MindMedia are portable and allow data transferring to be made wirelessly through Bluetooth, which could potentially train athletes to have faster reaction times, quicker decision making, more focus and many other performance enhancing possibilities. It is now possible to measure how focused, how ready to react, and how warmed up a football player is in

the line of scrimmage, or a soccer goalkeeper during a penalty kick, or a hockey player during a face-off, or a rugby player during a scrum; sport scientists and trainers are able to use this data and train their athletes to be at their peak level of performance for each circumstance. Moreover, the analysis during game-play or during practice may provide data on an athlete's ideal ranges of motion, data on the balance between flexor and extensor muscle groups activation. This is crucial information for performance, but more importantly, is paramount to the evaluation and training of ideal conditions to prevent injuries.

Another technological advance is the Hawk-Eye, from Hawk Eye Innovations. It is a precise ball speed and trajectory tracker that uses cameras and advanced software - The International Tennis Federation already approved the software for tournament play in 2005. It was launched in 2012 as a soccer simulator training system that tracks the ball's trajectory, spin and speed.

Some sport organizations have made use of geanalytics to try to have a better understanding of team strategies by analyzing athletes' and team's geographical positioning and movement on the field/court, by using systems like ArcGis, which provides data including team and individual movement and positioning trends.

Besides technologies that can be applied on the field there are options that can be used to improve performance from off the field variables, like athletes' activity and sleep. Monitors that track athletes' activity and sleep patterns (similar to the ones available commercially, like the Misfit-shine and Nike's Fuelband SE) provide team professionals with information that allows them to understand each athlete better. With this information professionals can provide athletes with individual guidance, according to the team's travel, practice and competition schedule so that they can improve rest, recovery and readiness for performance.

Other advances also targeting athletes' recovery are devices that emit electrical signals to stimulate small muscular contractions that assist on post-activity muscular recovery. These include TecElite from LG, and Marc Pro, which both require specific calibration and positioning from a trained professional, and the FireFly from FirstKind which is a take home device that does not require calibration or adjustment to specific levels and can be used by the athlete when away from the club.

More technology has been made available for on and off the field performance enhancement, and for athletes' health maintenance; some professional teams have followed this phenomenon and have increased investments in sport sciences. While some teams have done so in a more public way, like AC Milan from Italy, with the Milan Lab, and Real Madrid FC from Spain, with the Real Madrid TEC-Sanitas center; other teams have made investments in a more discrete and even secret fashion.

With the fast growing advances of the technological field in sports comes challenges, like finding trained professionals who know how to implement sport sciences with professional sport organizations in a seamless way, or to train members of the training/coaching staff to be able to take full advantage of the benefits that technology is bringing to sports. An example is of what benefits advanced sleep and rest data can bring to a team. But if there is no one able to create a program to optimize athletes' rest, recovery and sleep quality will it be valuable? Another important fact to highlight is that some technologies provide objective data and measures that need processing, analysis of the data according to each athlete's characteristics, and statistical analysis in order for it to make sense and to produce positive results for the teams. On the other hand, some of the technology that is being made available can already make its own calculations and algorithmic analysis, providing an outcome that also needs to be looked at with caution, as in some instances these technologies provide estimates and approximations, instead of exact measurements.

Conclusion

Even though there are some obstacles, the future of sport and technology is bright – there is potential to see a great deal of improvement in team performance enhancement and health maintenance coming from sport and performance technologies, especially with programs that make the adequate use of, and correct adaptation of the technology that is currently available. Finally, there are plenty of reasons to be excited for and to be looking forward to the future of sport performance technologies, as new conforming wireless technologies are being created and improved, and more efforts are being made in preparing knowledgeable professionals that will make the best use of them.

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An overview of Japa-Yoga research for health and well-being

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Abstract

The practice of mantra repetition in Japa-yoga leads to the grasp and attunement to, this cosmic vibration. The amount and quality of research on the impact of Japa-yoga for bettering health and treating medical conditions have incremented dramatically in the past decade. It has supplementally become quite specialized, with most reviews of Japa-yoga research focusing only on a single disease or population. In this regard, the goal was to the analysis of the state of research by providing examples and references to the famous research of Yogi's in many different research methodology and diseases.

Keywords: Japa-Yoga; research; health; salubrity or well-being

1. Introduction

Yoga is a component of mainstream culture today, with major medical centres, community healthcare centres, and neighbourhood yoga stations offering yoga as a mind-body practice to fortify health and rejuvenating. Although yoga has subsisted in various forms for around 2500 years, the phenomenon of “yoga for health” is a characteristic of more modern yoga [1]. Though research on health by means of yoga has been done and published over the years, this has increased significantly over the last 10-20 years, especially with more rigid regulatory restrictions [2,3]. Considerable research has been done additionally and more generally on the physical effects of yoga practice [4,5]. With this large expansion in research documenting the therapeutic effects of yoga, efforts have been underway to understand the mechanisms of the health benefits, including research on inflammation and the autonomic nervous system [6-8]. A recent review concluded that yoga improves quality of life and psychosocial outcomes including depression in cancer survivors, but evidence is limited for supporting improvements in fatigue or sleep [9,10]. Other reviews too report a variety of beneficial effects of yoga for cardiovascular diseases more broadly [11]. For asthma, the breathing component of yoga has been linked to improvements in lung function but has not proven to be better than standard breathing exercises for those specific outcomes [12-14]. The review suggested that yoga practice leads to better regulation of autonomic nervous system and a decrease in depressive and anxious symptoms in a range of population [15]. There may be certain poses or types of yoga that are not good for certain health conditions, and significant research is done in collaboration with clinical experts and certified yoga instructors who can guide the cull of the style of yoga that will engender the most benefit. Like other exercise activity, the jeopardies of injury from incongruously performing yoga postures vary depending on how, where, and with whom the yoga is practiced. While there have been media stories alerting people to the hazards of yoga, data from most research studies reveal very few solemn adverse events [16]. It is important to note that the original purpose of yoga – to increase one's spiritual well-being or connection with the divine - has typically been a neglected area for researchers. The popularity of yoga as an exercise that is being done in health clubs has probably led to some de-emphasis of spirituality. We have seen a sort of translation of the spiritual system of yoga into a form of practice acceptable in a secular context, and an integral feature of yoga is that it adapts to each unique historical era and cultural context [17]. While it is true that some people may be more likely to refuse to try yoga if spirituality is emphasized, it may be possible for this aspect of yoga to be woven in gently as a feature of yoga practice while emphasizing other physical and mental health benefits as described in this article [18]. The study revealed that the causes of continuous learning by means of yoga has changed over time. Several studies have shown that yoga studies enhance spiritual comfort [19,20]. In all the aforementioned investigation it was observed that most of the authors have studied detailed analysis of Yoga. Very little research was presented taking Japa-Yoga in consideration. Owing to the lack of research in this field, authors have been motivated to conduct this study in Japa Yoga. Hence, to the best of the authors' knowledge, there exists scarce concentration on this topic of research in which a comprehensive review of the benefits of regular Japa yogic practices

and teachings should be proposed to reduce or lessen structural, physiological, emotional and spiritual pain, suffering or limitations. The results of existing study reveal that *Japayogic* practice enhances muscular strength and body flexibility, promotes and improves respiratory and cardiovascular function, promotes recovery from and treatment of addiction, reduces stress, anxiety, depression, and chronic pain, improves sleeping patterns, and enhances overall well-being and quality of life.

2. Methods

When Allopathy, Homeopathy, Chromopathy, Naturopathy, Ayurvedapathy, and all other 'Pathies' fail to cure a disease, the divine *Namapathy* alone can save us. There is a mysterious power in the Name. We can take this medicine of *Nama-Japa* for self, as a remedy for any disease. One can administer this marvellous medicine to other patients as well in our house or elsewhere. This can be justified by a simple illustration. *The son of a landlord in Meerut was seriously ailing. Medicos had all given up and promulgated the case to be hopeless. The family members performed perpetual kirtan, day and night, for seven days, around the bed of the patient. The patient stood up and commenced to sing God's Name on the seventh day. He recuperated thoroughly.* Such is the miraculous power of *Sankirtana*. Thus, *Japa Yoga* is apperceived as a form of mind-body medicine that integrates an individual's physical, mental as well as spiritual components so as to amend aspects of health, and especially stress-cognate illnesses. *Japa Yoga* is the facile path to procure God's consciousness. *Japa* is the repetition of a *Mantra* or Name of the Lord. There are three kinds of *Japa*-Mental, semi-verbal, and vocal. *Mental Japa* is more puissant or powerful. When our mind wanders, reiterate the *Mantra* loudly. Sit in *Padma* or *Siddhaasana*, roll the beads with closed eyes. Loud repetitions shut out sounds. Do alternately silent and loud *Japa*. Select any *mantra* as per your choice or get it from your *Sadguru*, reiterate it conventionally. We can do *Japa* with the breath, this will be it *Japa of Soham*; reiterate mentally "So" with inhalation, and "ham" with exhalation. Do *Japa* in *Brahma-Muhurtaat* around 4:30 a.m. in the morning. One can derive immense benefits if practised at this time. As soon as awakened, sit for *Japa* and meditation. If sleep overpowers us, stand up and do *Japa*, or reiterate it loudly, Sprint cold water on the face or do *Kirtan* for ten minutes, or practise *Pranayama* and *Asana*, or sit on *vajra-Asana*. *Japa* is the repetition of the *mantra* of *Devata*. *Dhyana* is meditation on His or Her form and attributes. It is the keeping up of a perpetual flow of one conception of God. There is an abstruse power in the *Mantra*, and this *Mantra-Shakti* brings cogitation and *samadhi* and brings the devotee face to face with God. *Japa* transmutes the mental substance from passion to purity from *Rajas* to *sattwa*. It calms and strengthens the mind as well as the soul. It makes the mind introspective. It checks the outgoing tendencies of the mind. The mind is purified by constant *Japa* and worship. It is filled with good and pure thoughts. Repetition of *Mantra* and worship reinforce the good *samskaras* or *sanskaras*. *Japa* purifies the heart and steadies the mind. It gives a nice refreshing exhilarating, spiritual bath. It is a marvellous divine soap for the mind. *Japa* is the repetition of any *mantra* or Name of the Lord. *Japa* is an easy way of God realisation. *Japa* is an important *Anga* of *Yoga*. *Japa* ultimately results in *Samadhi* or communion with the Lord. There is no *Yoga* more preponderant than *Japa yoga*. *Japa* is repetition of the *Mantra*, *Dnyana* is meditation on the form of Lord with His attributes. Such is the distinction between *Japa* and *dhyana*. There is meditation or *Dhyana* with *Japa* (*Japa-sahitadhyana*); there is meditation or *Dhyana* without *Japa* (*Japa-rahitadhyana*).

In the commencement, we should combine *Dhyana* with *Japa*. As we advance, the *Japa* drops by itself, meditation only remains. It is the advanced stage. We can then practice concentration discretely. We can do whatever seems to be best in this adoration. Do the *Japa* with inner feeling and exact meaning of the *mantra*. Feel the divine presence in everything and everywhere. Draw more and more proximate to Him when we reiterate the *Japa*. A *Mantra* is a divinity. It's divine power or *Daivi Sakti* main feasting in a sound body. The repetition of the *mantra* removes the dirt of the mind, such as disoriented, anger, greed, etc. Just as soap cleans gold the cloth of its impurities so with the *mantra* is a spiritual soap cleansing the mind. Just as fire cleans gold of its impurities, so also *mantra* cleanses the mind of its impurities. *Japa* checks the force of the thought-current moving towards objects. Those who practice this useful *Sadhana* will never have an evil *Drishti*. He will never complain of bad environments, so one must put these into daily practice.

5. Discussion

O man, why do we waste our time in gossip? We will have to repent in old age and have to weep at the hour of death. So, have a rich crop of *Japa* now. If great persons like *Shree Samarth Ramdas, Sant Tukaram, Narsimha Mehta, Jnanadev, or Jnaneshwar and Sant Namdev*, could practice *Japa* and procured God-realization, why not we, O beloved '*Govind!*' The name is an asset for each one of us.

Name is real wealth for us. If we repeat the Name one lakh times, we will have immense spiritual wealth, in the spiritual bank of the Lord. We must put these into practice continuously.

1. No man is regrettable. Everyone has some good trait or the other. Endeavor to visually perceive the good in everyone. Develop a good finding nature.
2. Even a rogue of the first order is a potential Saint. He may be the Saint of the future. He is not an eternal rogue. Hence, place him in the company of saints.
3. Have *Atma-Drishti* everywhere. Feel His presence.
4. Change the mental attitude. Then only we will find heaven on earth. The first two methods are for beginners. The last two are for the advanced students of yoga. Anyone who can cumulate these methods, at one time, to his best advantage.

Glory to the Name, Glory to Japa!

Glory to God, Glory to Guru!

Glory to those who stick to the Name,

Who reiterate daily the Name.

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The Role of Law in Regulate the Gambling and Betting in National and International Sports in India

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1. Introduction:

India is a fond of several local and International games. The sports demonstrate the Law practically which otherwise not possible in other field as such. The internationalization of sport makes the human community to grow and work on their peace agenda which otherwise the major function of International Law. In this way sport helps the nations to leads toward the notion of peace and co-ordinations by avoiding the traditional war system. India is now a day a hometown of international Sports. Many Nations like India organizing International sports for International Co-operation and Co-ordination. However, still 2018, the gray area of law is still open for criticism especially in cases of mental harassments of players and the contractual liability and enforceability of it arising out of Betting and gambling. In this context, there are few questions which need to address properly.

1. Whether there any law available in India for Sport?
2. Is there any provision which prevent the harassments of players in sport for the purpose of gambling and betting?
3. What shall be the contractual liability of defaulter and how one can enforce it when it arises out of gambling and Betting?
4. How Indian law can control and regulate the gambling in sport and involvement of player in to it.

2. Research Methodology:

The researchers surveyed the problems in sport and formation of sport law in India. However, the present research covered both doctrinal and non doctrinal methods roofed by qualitative and constitutive methodology. In order to explore the study, the help has been availed by secondary sources of information like internet. In order to compute the paper, researchers have referred various authorities by referring Supreme Court, High Courts though SSC Online and other related Article from Westlaw, Hen online and many other legal databases.

The empirical survey on the questions and queries mentioned above showed the path to identify and recognize the need of Sport Law and Suitable changes as per the requirement. However, both these methods are felt to be useful to attain the objectivity of present study.

3. Objective: The objective of the present study is as under -

1. To know the recent sport policy as well as law of India on sport.
2. To know the status of International Sport law on gambling and Betting.
3. To highlight few conflicting issues in sport
4. To find out suitable solutions to such conflicting issues

4. Description of the research issues including socio-legal analysis of the problem:

The incidences of match fixing and cheating are not new to the Indian games. Especially in case of cricket². In 2013, there are three players of a team in IPL who

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² In a separate case, the Mumbai Police arrested a player, an official and a relative of an office bearer of BCCI for betting and having links with bookies. A two-member committee of the Board of Cricket Control of India (BCCI) had reported it to be a case of no evidence.

found involved in match fixing³. The Supreme Court successfully appointed the Mudgal committee to work on it. The Mudgal Committee found that a large number of people associated with IPL had indulged in hedging bets (Team against Team) and match fixing.⁴ However, suggestive remark could hardly help to the crime. Especially when the crime is victimless.

The lengthy procedure to decide and finding of evidence is really a tough job. Almost all work of match fixing is done in code wards which predetermines the winner and loser. The existence of corruption in international and national sport is really a big challenge for the law. Most of the sport field is captured by private organizations and bodies. To control them through government legal instrumentability is nothing but the impossible act. No doubt, the issue of corruption is inherently a moral syndrome of the subject concern. If one wants to do it he can do it by any means. But the means of law is not that much of sharpen which can curb over the problem of corruption in sport. Sport industry becoming the huge industry of corruption yet. The involvement of politicians in the administration of sports bodies for a very long period and controversies surrounding 2010 Commonwealth Games dented the image of sports administrators in India.⁵ Therefore, there is need to focus on the legality of sport industry especially in cases of gambling and Betting.

Secondly, the scope of tortuous liability of private clubs or associations for such purposes also needs to undertake. The possessiveness of the word legally, signifies the legality and constitutionality of clemency of such right through proper forum. However, what exactly is the proper forum to claim such right is also another issue in to the spear of sport activities. Similarly, the role of Courts in governing the sport activities is also need to evaluate on the line of judgments given. However, due to lack of strong sport law, many acts in sport are unwarranted which grossly impacted on following factors.

5. Impact and Implications:

5.1 A: Impact:

The data made available to the Commission by the Delhi Police reveals that, in the year 2016, 1098 cases have been registered under the gambling act while in 2017, the figure stood at 1273. In 2018 (up to 5 May 2018 alone), 544 cases have been registered. A total of 2916 cases have been registered under the gambling act in a period of 28 months, i.e., 104 cases per month, on an average.⁶

The Indian sport system is bang to bow down its knees to poverty. The corruption demotivated the quality players. From the entry level to retirement, a sportsperson somewhere compromise with the sense of ethically bad practice which otherwise hard to correct by law. The use of player for gambling purpose or use of game by player for gambling is impacted lot on other players as well as integrity of the game. Due to lack of proper regulations, the Sport industry becomes the tool of few privileged people who can influence the game as per their choice and wish. However, in few cases of injuries to player willfully or otherwise, the chance of vicarious liability by private club or sport association for the wrongful act of an individual in sport cannot be avoided.

³ 276th Law commission report of Government of India, "Legal Framework: Gambling and Sports Betting Including in Cricket in India", July 2018 P. 1.

⁴ Mudgal Committee is a four-member committee, headed by former High Court judge Mukul Mudgal and comprising the then Additional Solicitor General of India L Nageswara Rao and senior advocate and former cricket umpire Nilay Dutta to conduct an independent inquiry into the allegations of corruption against BCCI chief N. Srinivasan's son-in-law Gurunath Meiyappan, India Cements, and Rajasthan Royals team owner Jaipur IPS Cricket Private Ltd, as well as with the larger mandate of investigating allegations having to do with betting and spot-fixing in 2013 Indian Premier League matches and the involvement of players. For more details see <https://indianexpress.com/article/sports/cricket/supreme-court-asks-mudgal-committee-to-complete-probe-within-two-months/>

⁵ Nune Shravan, "Sports in India: Problems and reform measures", Monthly Current Affairs 2018. For more details see <https://www.jagranjosh.com/current-affairs/sports-in-india-problems-and-reform-measures-1508848667-1>

⁶ 276th Law commission report of Government of India, "Legal Framework: Gambling and Sports Betting Including in Cricket in India", July 2018 P

However, few acts in sports are neither a complete neither wrong nor completely right. Such as betting and gambling.

5.1.B: Implication:

In order to implicate the legal norms on the above issues, there are many laws and regulation has been created in India. However, the subject of sport is regulated by the II list of Indian Constitution. Hence many laws have been framed by State rather than the central. However, few states allowed the activity of gambling as legal and few have not allowed. In the State of Goa, the gambling is legal however, in other states it may not be. Hence in order to understand the exact position, one may refer the law on gambling in India with the help of state laws.

5.1B. a. The Bombay Prevention of Gambling Act, 1887: As per section 3 of the Act of 1887, gambling and betting is prohibited except the horse riding and dog riding. The said Act prevailed in Maharashtra and Gujarat.

5.1B b. The Meghalaya Prevention of Gambling Act, 1970: The Act completely prohibited the games of skill as well as games of chance.

5.1B.c. The Rajasthan Public Gaming Ordinance, 1949: This Act bifurcates in between game of chance and game of skill. The game of chance has only been allowed when it is played in to the common gaming house.

5.1B.d. The Goa, Daman and Diu Public Gambling Act, 1976: In these Union Territories, the gambling is prohibited. However, the business of casinos and other games of chance are open to public. However, in 2012, the amendment introduced the commissioner for games who shall control and regulate and try the matters arising out of such games of chance. The Jurisdiction of Civil Court has been withdrawn by this Act.

5.1B.e. The Sikkim Online Gaming (Regulation) Act, 2008 and Nagaland Prohibition of Gambling and Promotion and Regulation of Online Gaming Act, 2016: Sikkim became the first state by regulating the online Betting and gambling. However, few games have been allowed to be used as a means of gambling or Betting with license. The similar provisions have been adopted in the State of Nagaland.

6. Judicial Decisions:

By referring the above situation, it is sure that, there is no uniform law of gambling in sport in India. However, the legal status of gambling in to various local, National and International spare is also not clear. In few states the gambling is allowed up to some extent and in few states it's not allowed as such. Therefore, in order to have the clear picture on the law relating to gambling in India, one may look in to dimensional matters on Betting and gambling decided by the Supreme Court of India and other High Courts in toto.

6. 1. A Sport Gambling Whether Legal or Not in India:

Working without strong law in such civilized country where all functions are regulated by law only, is very hard. Therefore, Supreme Court instead of touching the issue directly, shifted the burden on the parliament to decide as to betting in cricket is legal or not.⁷ *Board of Control for Cricket in India v. Cricket Association of Bihar & Ors*⁸ held that, the recommendation made by the Committee that betting should be legalized by law, involves the enactment of a Law which is a matter that may be examined by the Law Commission and the Government for such action as it may consider necessary in the facts.

As the matter of fixing legality of gambling is under consideration by law commission of India. However, many people consider it as a game of skill rather than the game of chance. Therefore, the exact status of Gambling in sport is undetermined. The Cambridge English Dictionary defines gambling as "the activity of

⁷ Board of Control for Cricket in India v. Cricket Association of Bihar & Ors...For more details see <https://www.livelaw.in/breaking-law-commission-recommends-legalisation-of-regulated-gambling-and-sports-betting-says-complete-ban-not-working/> visited on 3/12/2018

⁸ (2015) 3 SCC 251

risking money on the result of something, such as a game or horse race, hoping to make money.⁹ The term “betting” is generally considered synonymous with wagering, however, it alludes to antes in connection with events in the nature of races or matches between individuals or teams.¹⁰

However, the Supreme Court in the case of *Dr. K. R. Lakshmanan v. State of Tamil Nadu & Anr* Defined the Gambling as a payment of a price for a chance to win a prize. Games may be of chance, or of skill or of skill and chance combined.¹¹ However, there is clear distinction of game of skill and game of chance. When the corruption is involved in to the game it neither is the skill or the chance. It only a manipulation of the contact for personal gains wrongfully or the gains for other wrongfully.

The Madras High Court in *Public Prosecutor v. Veraj Lal Sheth* explains the distinction in between game of skill and game of chance in gambling and betting. In case of chance, in gaming the stake is laid by the players upon a game, the result of which may depend to some extent upon the skill of the players. However, in a bet or wager the winning or losing of stake depends solely upon the happening of an uncertain event. However, the court also clarified the meaning of gambling and beating stating that, in gambling, the stakes or wager is placed on an event without any clue of the outcome; whereas, in betting the stakes are placed on an event, the outcome of which is based on the performance of the players, influenced by their skill.¹²

As far as wrongful gain from the sport is concerned that can be initiated by two wrongful conducts of a person. Conduct malum in se i.e conduct inherently wrong. However, other is conduct malum in prohibitum. i.e conducts which is prohibited by law itself. In plethora of its judgment, it has been proved that, gambling in sport is not commercial activity but it may cover under *Res extra commercium*.¹³ The *res extra commercium* doctrine traces its conceptual roots to Roman law. *Res in commercium*, in Roman law, were things capable of ownership and hence, the subject of property rights, while *res extra commercium* were things incapable of ownership.¹⁴ However, considering the gambling in sport is lawful or not is ultimately a question of public policy which may vary from generation to generation and society to society. However, as per the existing policy of law, gambling is unlawful and according to my view, the view of existing policy must have to be considering for the purpose of upcoming law on sport.

The Courts in India have been unwilling to extend the scope of “immorality” under section 23 of the Contract Act. However, any agreement by which a party is deprived of interest (any legitimate claim) would be rendered void for being immoral and violative of public policy is void.¹⁵ However, who are favoring for betting and gambling and for its regulation under Section 30 of the Indian Contract Act, 1872. Section 30 of the Indian Contract Act in its current form is detrimental to the players and consumers of the Gaming Industry. However, as per law, all wagering agreements including the chances of winning without spending the efforts is not enforceable in to court of law.

Irrespective of the facts, due to heavy tax collection by Government, the activity of gambling and Betting is spell out under Indian Constitution.¹⁶ Therefore, it’s now in the hands of the states to continue with gambling or not. However, involvement of players to influence the game is unethical as well as oppose to public policy as well. Therefore, while framing the law or policies for making the law, it must have to consider few possible outcome of the above discussion.

7. Possible Outcomes and Solutions:

⁹ Available at: <https://dictionary.cambridge.org/dictionary/english/gambling#dataset-businessenglish> (last visited on 3-12-2018)

¹⁰ Sethi, Sethi’s Law relating to Gambling, Betting, Lotteries and Clubs 47(Law Publishers(India) Pvt. Ltd., Allahabad, 3rdedn).

¹¹ *Dr. K. R. Lakshmanan v. State of Tamil Nadu & Anr* AIR 1996 SC 1153

¹² 276th Law commission report of Government of India, “Legal Framework: Gambling and Sports Betting Including in Cricket in India”, July 2018 P. 1.

¹³ *R.M.D. Chamarbaugwala v. Union Of India* AIR 1957 SC 628.

¹⁴ 276th Law commission report of Government of India, “Legal Framework: Gambling and Sports Betting Including in Cricket in India”, July 2018 P. 41

¹⁵ *Union of India v. M/s N.K. Garg & Co.* O.M.P. No.327/2002 decided on November 2, 2015.

¹⁶ See entry 34 and 62 of list II

Without the proper regulation on the sport, there is a chance to have widespread of uncontrolled business of gambling and betting however, by regulating the uncontrolled business of gambling; there is a chance to increase the opportunities of employment, and opportunities of generating the tax revenues. It will also help to vulnerable sections of the society. It will help to work on the line of fairness in experience with games. It will motivate the viewers to see the games with interest without spoiling their time in watching only. However, there are few suggestions in order to resolve the problem of **Betting and gambling**.

1. There is a strong need to set out the sport law for whole over India by considering the practices prevailed in state to state.
2. Complete banning of gambling and Betting in games is as such impossible task. However, there must be exact legal definition of “Games of skill and games of chance” in order to control and regulate the business of gambling and Betting.
3. Online gambling generated a gross amount through gambling whole over the world. Hence, there is need to curb on the practices of worldwide online gambling on Indian games.
4. The international co-operation and co-ordination can make it successful. The special investigation team is needed to contrive for the purpose of investigation.
5. However, spot fixing for the purpose of Betting and gambling must make a criminal offence with the vicarious liability of Association under which the player is registered.
6. There is need to have on hand research in the area of sport and governmental spending thereof. In short, corruption at any level will disturb the fair player. It may sounds physically fit but mentally may not. Hence, it’s a matter of choice rather than the compulsion. However, the growth of any subject is not possible without ethics, fair practices and complete fitness.

Science Behind Pre-meal and Body Performance

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There's nothing quite like breakfast habits to get even the most reasonable of people riled up. While the old adage "breakfast like a king, lunch like a prince and dine like a pauper" may seem like good advice to abide by, is it actually true? There is a good amount of evidence showing that for those who are hungry, having breakfast can set you up for the day -- provided you're eating the right food. Does not eating breakfast every day make you fat? Is it really the most important meal of the day? It turns out that, scientifically speaking, the jury's still out on whether breakfast is actually even necessary -- let alone good or bad. That's right: scientists have been as confused as the rest of us when it comes to proving -- or disproving -- that breakfast is the most important meal of the day.

Can breakfast help keep you trim?

The crux of the breakfast divide is what nutrition scientists call the "proposed effect of breakfast on obesity," or the PEBO. It's the idea that people who don't eat breakfast actually end up eating more and/or worse things over the course of the day, because their nightly fast was not properly broken. While this is a popular belief, experts say it's a little more complicated than that. "Eating breakfast does not necessarily prevent obesity", the head of nutrition and dietetics at Monash University. "If you eat breakfast everyday, it doesn't mean you won't be overweight; and if you don't eat breakfast, it doesn't mean you will be overweight." However, she does point out that those who do eat breakfast have a slight advantage: not only do they give themselves the maximum amount of time to burn off the calories eaten in the morning, but eating breakfast at home gives us greater control of what we eat -- and can curb those sugar cravings that present themselves mid-morning.

"It's much harder to make good food choices when you're out of home".

According to Dr Tim Crowe, the incoming Associate Professor in Nutrition at La Trobe University, the belief that breakfast skippers will put on weight can also stem from dieting behaviours. "People who are overweight are often trying different dieting methods to lose weight. Skipping breakfast may be one of them, and this can create the association that people who are overweight often skip breakfast."

How much does what we eat vs when we eat matter?

It turns out that whether or not you eat breakfast doesn't make a huge amount of difference to your health; often, it can be more about what you eat, rather than when you eat. "If you don't feel hungry, making yourself eat breakfast won't be necessarily the right thing to do". "It's related to the body clock; people who are evening people often don't feel hungry first thing in the morning, and people who prefer the morning often enjoy a good breakfast."

There is a good amount of evidence showing that for those who are hungry, having breakfast can set you up for the day -- provided you're eating the right food.

Professor Truby suggests picking foods high in protein, such as milk or dairy products, eggs, yoghurt, some (make sure they're fortified, so full of nutrients) breakfast cereals and oats. "These items will make you feel fuller for longer, and reduce cravings for snacks mid-morning which tend to be higher in sugars and fats." Professor Crowe agrees: "Call it breakfast at 7am or 11am, it's eating well that is the best for your health," he says. However, when you eat can have an effect on your health (and weight), especially if it's not offset by healthy lifestyle choices such as exercise and a rich and diverse diet. Last year, Monash University researchers looking into shift worker diets found that eating at night has a significant effect on blood sugar levels. Because many metabolic processes such as appetite, digestion and the metabolism of fat, cholesterol and glucose follow a circadian pattern, workers who live a schedule that's out of sync with their circadian rhythms have poorer health outcomes, with the World Health Organisation even declaring in 2007 that shift work is a probable carcinogen.

In this study, researchers fed participants the same meal (a low glycaemic index meal) at 8am, 8pm and at midnight on three separate days, and found that when they ate the meal at night time, their insulin levels and blood glucose were much higher.

How A Healthy Breakfast Boosts Your Mood

This has paved the way for a larger study seeking to find out when shift workers should eat in order to avoid cardiovascular health problems and diabetes, two conditions shift workers are more likely to suffer from.

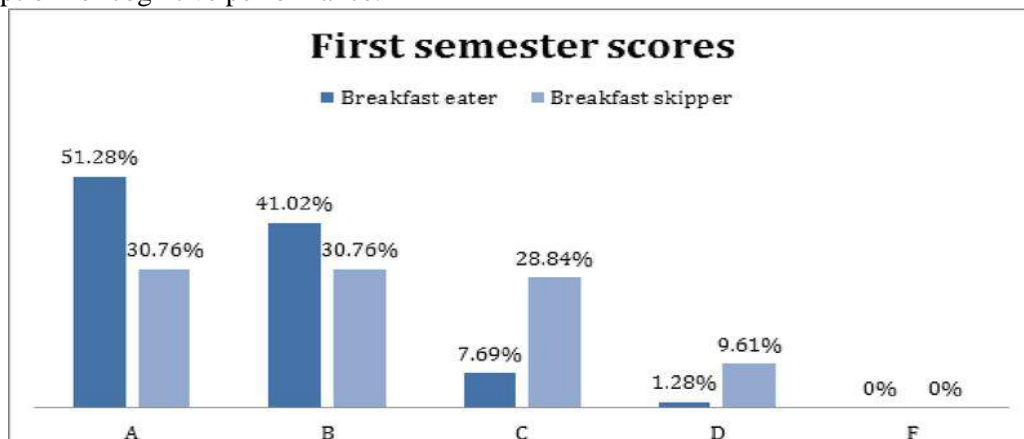
Professor Truby says that while failing to eat breakfast in the early morning if you're not hungry is not bad for you, eating late at night can have detrimental effects on your overall health.

"The reason we get hungry is that our blood sugar drops down, and it pushes us to eat," she says.

"The body has a certain rhythm (circadian rhythm) that influences insulin secretion. Less insulin is produced at night, so if you're eating at night and in particular having high sugar snack items that stimulate insulin, your overall health will be more impacted."

Is breakfast necessary to help perform at your best?

There's been a lot of research dedicated at looking into the importance of breakfast consumption for cognitive performance.



This study was conducted to examine the effect of breakfast intake on the academic performance of young female students in the emirate of Abu Dhabi. Data was collected through a self-administered questionnaire from 130 female students aged 15-19 years, who were selected from two private schools in Abu Dhabi. The questionnaire was used to explore the students' breakfast consumption habits. The data collected was analysed to examine the association between breakfast intake and academic performance. Academic performance was assessed according to the average grade for all subjects in the final exam.

As the academic performance of the study subjects was assessed via the grades they scored on the final exams, they were categorised into two groups: breakfast eaters and breakfast skippers. The grades scored by the students in the breakfast eaters group were as follows: 51.28% of the students scored A, 41.02% scored B, 7.69% scored C and 1.28% scored D. By contrast, 30.76% of the breakfast skippers group scored A, 30.76% scored B, 28.84% scored C and 9.61% scored D. None of the students in either of the groups scored F. Sixty-two percent of the 130 students eat breakfast regularly. Breakfast consumption is associated with increased academic performance among high school female students. The association of breakfast intake was found to be statistically significant ($p = 0.00$).

Changing one meal a day can benefit your health and the environment

Stemming from another key belief that breakfast helps us concentrate better at school and work, some studies have found that eating breakfast has a short-term effect in improving selected learning skills, especially working memory, which is important for reasoning and decision-making.

Another study again found that benefits of eating breakfast extended to having a better memory and making fewer errors during demanding tasks, particularly during the late morning.

This has been especially evident in studies with children, who experts say are particularly sensitive to the effects of breakfast.

Professor Rachel Burton, the head of Plant Science and the School of Agriculture Food and Wine at the University of Adelaide, says that younger kids just need the energy.

"They're so active; they just run around all day, unlike adults. Children also learn better in the morning, and need the extra energy," she says.

The problem is that many parents are confused about what exactly constitutes a good breakfast. Professor Burton says that many breakfast foods directed at children, such as brightly

coloured cereals and orange juice, are full of sugar and lack the protein, fat, complex carbohydrates and micronutrients that are essential for health.

"Kids do need breakfast, but they need something that's whole grain and that will enable a slow burn of energy throughout the day. I think a lot of parents don't realise how much sugar is in common breakfast foods and drinks like cereals and orange juice," she says.

And if you like to exercise?

For those who like to exercise, Professor Crowe says eating breakfast is good for peak performance -- "it will allow you to do more physical activity later in the day."

A University of Bath study of 33 people randomly assigned to eat or skip breakfast found that breakfast eaters were less sluggish in the morning; they burned almost 500 calories more in light intensity movements. That said, they also consumed more calories in the morning, but their energy levels were higher and they did more in the morning. This is supported by another University of Bath study, which found that eating breakfast before exercise may "prime" the body to burn carbohydrates during exercise and more rapidly digest food after working out. At the end of the day, whether you eat breakfast or not is not actually the most important question.

Eating breakfast is good for you, but if you eat the right things. And if you're not a breakfast person? Don't sweat it: it's better to eat nothing at all than something full of sugar and bad fats.

"What matters is protein and complex, low GI carbohydrates. Protein is what stops you from being hungry, and getting some slow releasing carbs into your system will help you concentrate better," Professor Truby says.

Effect of Pre-Meal on Athlete

Endurance athletes are always in search of that added edge to push their training and racing forward. Endurance athletes will try it all, whether it's investing in stocks that promise to increase circulation, bracelets that are supposed to improve balance or special shoes that encourage efficiency. It's no wonder so much attention is paid to fuelling properly. Turns out, that performance isn't just tied to what endurance athletes eat, but when—especially when to eat breakfast. And whether to exercise before or after breakfast is a long-standing debate in the endurance sports world.

Researchers in Belgium put 28 healthy, active men on a high-fat, high-calorie diet. The men were split into three groups: The first group didn't exercise at all, the second exercised four times a week and ate breakfast prior to workouts, and the third worked out and ate the same amount, but waited to consume any calories until after their morning workouts.

The non-exercise group predictably put on the most weight. The compelling data was the difference in the weight gain of the two exercise groups. The results showed the group who waited to eat breakfast until after their workouts gained hardly any weight, while the ones who ate before still managed to pack it on. While these findings have garnered much attention, you'll be hard pressed to find a sports nutritionist who recommends fasting before working out. Indeed, to perform at your best, you need fuel.

"An athlete who is eating relatively healthy is not going to gain an edge by skipping breakfast," says sports nutritionist Barbara Lewin.

Without that fuel, endurance athletes lack the get-up-and-go to push themselves as hard. A hungry athlete's muscles won't respond as well either.

Fuelling for Workouts

"We take better care of our cars than our bodies," Lewin says. "Going out for a workout without fuelling can increase muscle tissue breakdown and that can do a lot of damage in the long run." While a car will simply stop when it runs out of gas, humans can push their bodies long after they've depleted their energy stores. Which means breakfast is more important than you might realize.

"You're burning calories at rest even when you're sleeping," Lewin says. This means by the time you step out of bed, your body is already at a glycogen deficit. If you don't eat before your morning workout, the lack of muscle-fuelling glycogen will lead to fatigue. Perceived exertion during exercise also skyrockets and everything feels more difficult. "You want to support your workout as much as possible," Lewin says. "If you are restricting calories before exercise, you're going to be running on empty." This glycogen depletion can cause you to bonk in the middle of a long effort and can even lead to injury as the result of fatigue. While a gut-busting

meal isn't necessary before a workout, a small amount of easily digestible calories will keep you up and running.

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The Role of Nutrition and Dietetics in Human Life

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Abstract :

Nutrition is the most important part of a balanced diet. Fruits and vegetables have vitamins, fiber and micro-nutrients, scientists are still discovering to this day. Dairy gives calcium and other vitamins, for strong bones. Grains contain fiber and carbohydrates, which regulate the digestive tract and fuel the body respectively meats, supply protein and iron which helps build muscles and move blood properly.

Knowledge of the nutrients and their functions in the body is necessary for understanding the importance of good nutrition. The six nutrients carbohydrates, fats, protein, vitamins, minerals and water are present in the foods we eat and contain chemical substances that function in one or more of three ways: they furnish the body with heat and energy they provide material for growth and repair of body tissues and they assist in the regulation of body processes. Food is the substance taken into the body that will help meet the body's needs for energy, maintenance of health, growth and reproduction.

Keyword : Nutrients, Dietetics, Balance diet, Optimum nutrition, Nutritional status, Nutrition planning.

Introduction :

Nutrition is the relationship of foods to the health of the human body. Proper nutrition implies receiving adequate foods and supplements to convey the nutrients required for optimal health. Without proper nutrition and exercise, optimal health and well-being cannot be attained.

Proper nutrition means that all the essential nutrients that is carbohydrates, fats, protein, vitamins, minerals and water are supplied and utilized in adequate balance to maintain optimal health and well being. Nutritional deficiencies result whenever inadequate amounts of essential nutrients are provided to tissues that must function normally over a long period of time. Good nutrition is essential for normal organ development and functioning for normal reproduction, growth and maintenance for optimum activity level and working efficiency for resistance to infection and disease and for the ability to repair bodily damage or injury.

Nutrition :

Nutrition is the science of food and its interaction with an organism to promote and maintain health. Thus nutrition is a combination of processes by which all parts of the body receive and utilize the materials necessary for the performance of their functions and for the growth and renewal of all the components.

Good nutritional status refers to the intake of a well balanced diet, which supplies all the essential nutrients to meet the body's requirements. Such a person may be said to be receiving optimum nutrition.

Signs of Good Nutritional Status:

Shiny hair, smooth skin, clear eyes and alert expression and firm flesh on well developed structure reflect good nutritional status of a person. A person ought to be of correct weight in relation to his height. His physical and mental responses should be normal. Good nutritional status of a person is also reflected by his stamina and resistance to diseases. Good nutrition also helps a person have regular sleep and elimination habits. It may increase a person's life span. In short a person with a good nutritional status can enjoy life fully.

Functions of Nutrients :

A nutrient must accomplish at least one of the following three functions: Supply energy to the body, Build and repair body tissues, Regulate body process.

Nutrient Requirement :

Can be defined as the minimum amount of the absorbed nutrient that is necessary for maintaining the normal physiological functions of the body.

Objectives of Nutritional Management :

To provide adequate nutrients in terms of energy, protein, vitamins and minerals according to the individual needs, To maintain fluid and electrolyte balance for optimum performance and also for proper hydration (to prevent dehydration), To formulate tailor made diets ideal for the sports person during training competitions and after competitive sports. Performance is an intricate combination of

factors like heredity, training, nutrition and coaching. The hereditary factors cannot be controlled but all the other factors can be combined for optimal performance.

Guidelines for Good Health :

The general guidelines to good health that may be followed are: Avoid eating the same kind of foods all the time, Eat a variety of foods. Maintain regularity in your routine, Eat as much natural foods as you can, Consume seasonal foods as far as possible, Eat well but do not overeat, Avoid excessive salt and spices, Avoid too much sweets, especially sugar, Eat foods which contain carbohydrates, especially starch and fibre, Avoid foods that contain large amounts of cholesterol and saturated fats, Watch your weight and maintain ideal weight.

Balance Diet :

A Balanced diet is one that provides an adequate intake of energy and nutrients for maintenance of the body and therefore good health. A diet can easily be adequate for normal bodily functioning yet may not be a balanced diet. An ideal human diet contains fat, protein, carbohydrates, vitamins, minerals, water and fiber all in correct proportions. These proportions vary for each individual because everyone has different metabolic rates and levels of activity.

Importance of a balance diet :

1) Importance of a Balanced Diet Preventing Infections and Diseases : Consuming all foods in a well balanced proportion will help your body to prevent many infections and disorders. If the body gets all the required nutrients, it will improve the functioning of the immune system which is responsible for the prevention of various infections. By following a balanced diet, you reduce the possibilities of some types of cancer, control blood sugar levels effectively and control blood pressure. It prevents diseases that are a result of either over consumption or under consumption of certain foods.

2) Healthy Body Growth : If the body is getting all the essential nutrients regularly it will certainly be fit. It would be away from infections and diseases, which in turn will promote a healthy body growth and maintenance. A balanced diet should be implemented in the routine of a growing child or a teenager. You would be able to easily perform physical tasks without any exertion on the body. It is a necessity nowadays, as there is so much physical and mental stress in the lives of people.

3) Controlling Weight : For the purpose of reducing and controlling weight people tend to forget why is a balanced diet important. They don't understand that a balanced diet is the key to reduce or increase weight. Those who want to reduce weight try different ways but don't succeed. The reason is that the routines they choose include consuming huge amounts of foods that don't contribute to weight loss.

4) Active Lifestyle : A balanced diet would also be beneficial to the state of mind. You would be able to live an active lifestyle. Because both the body and mind are in a good state they would coordinate effectively. It will help you to take immediate decisions and tackle problems efficiently. It is also proven to increase the remembering and memorizing capability of a person.

Nutrition Planning : For every physical activity the body requires energy and the amount depends on the duration and type of activity. Energy is obtained from the body stores or the food we eat. Energy is measure in calories and a calorie (cal) is the amount of heat energy required to raise the temperature of 1g of water 1degree Celsius from 14-15 degree Celsius. The energy required for the vigorous physical activities will be derived from a healthy and a balanced diet. Generally the people who are economically weak are deprived of balanced diet. Sometimes there is a problem of over nourishment leading to obesity which is a major cause of heart diseases. So we can say that a balanced diet is needed for every person irrespective of his or her financial or social background. The diet should neither be in excess nor less.

Conclusion :

Thus food play a prominent role in providing physical, mental and social well being which is otherwise known as health to the people. Health is reflected in a person's nutritional status. Nutritional status is the condition of the individual as influenced by the utilization of the nutrients. Dietary history, physical examination and laboratory examinations reveal it.

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The Role of Nutrition in Enhancing Sports Performance of Players

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Introduction

Nutrition plays a very important role in sports performance. It is important for health, adaptation to physical activity and exercise, weight maintenance, and exercise performance. Nutrition influences nearly every process in the body involved in energy production and recovery from exercise. Without adequate carbohydrate and fluid, an athlete will get tired very easily and quickly. Without all three of these plus adequate vitamins and minerals, an athlete will never be able to perform to their maximum potential. Proper nutrition must be available pre, during and post competition. You may have a great game or great workout, but if the proper nutrients are not consumed, your development will suffer. Think of your body as a high performance machine and that you must feed it right performance fuel. Sports nutrition has many goals to enhance performance. First it improves performance by improving body composition, which increases speed, quickness, mobility, and strength. Second it will help the speed of recovery, which will in turn create more capacity for practicing and competition as the body is becoming more fit and adjusted to the coupling of the good nutrition incorporated into the workout regimen. Third, it will allow one to increase energy for both practice and competition, which will definitely help one's performance.

What is Nutrition

Nutrition is a science that interprets the interaction of nutrients and other substances in food in relation to maintenance, growth, reproduction, health, and disease of an organism. It includes food intake, absorption, assimilation, biosynthesis, catabolism, and excretion.

What are the types of nutrition

There are two main types of nutrients, macronutrients and micronutrients. The three main categories of macronutrients include carbohydrate, protein, and fat. The two types of micronutrients are vitamins and minerals and these are extra molecules that cells need to make energy.

Why is nutrition important in sports performance:

At the most basic level, nutrition is important for athletes because it provides a source of energy to perform the activity. The food we eat impact on our strength, training, performance and recovery.

Role of various nutrients in sports performance:

Good nutrition must be a key part of training programmes if one has to succeed. The six major nutrients present in the food are mainly carbohydrates, protein, fats or lipids, vitamins, minerals and water. They are like team mates that work together to provide good nutrition. A lack of even one nutrient is a disadvantage to your body. Nutritional deficiencies can result in decreased player's performance.

The Awareness of Nutrition:

The awareness of nutrition playing an important role in sports performance. Many factors can impact the performance of a sports person during competition which may be related to different domains. The most commonly encountered nutritional related problem among sports person is their failure to consume sufficient total of food energy. The certain nutrition and dietary approaches enhance the sports performance and also nutrition is essential for an athlete's good performance. The athlete's diet should be high in carbohydrates, moderate in proteins and low in fat.

How does nutrition affect athletic performance:

Sporting performance and glycaemic index: more research is required to confirm the best recommendation for sports nutrition. However, there is a suggestion that low GI foods may be useful before exercise to provide a more sustained energy release. Moderate to high GI food and fluids may be the most beneficial during exercise and in the early recovery period. It is important to remember the type and timing of food eaten should be tailored to personal preference and to maximize the performance of the particular sports in which the person is involved.

Protein and sporting performance:

Protein is an important part of a training diet and plays a key role in post exercise recovery and repair. The amount of protein recommended for sporting people-

- General public and active people – the daily recommended amount of protein is 0.8 – 1.0 g/kg of body weight (a 60 kg person should eat around 45 – 60 g of protein daily)
- Sports people involved in non endurance events – people who exercise daily for 45 – 60 minutes should consume between 1.0 – 1.2 g/kg of body weight per day.
- Sports people involved in endurance events and strength events – (more than one hour) such as weight lifting should consume between 1.2 – 1.7 g/kg of protein of body weight per day.

Water and sporting performance:

Dehydration can impair athletic performance and, in extreme cases, may lead to collapse and even death. Drinking plenty of fluids before, during and after exercise is very important. Water is suitable drink, but sports drinks may be required, especially in endurance events and warm climates. Sports drinks contain some sodium, which helps absorption. A sodium content of 30 mmol/L (millimoles per liter) appears suitable in sports nutrition.

Using nutritional supplements to improve sporting performance:

Nutritional supplement can be found in pill, tablet, capsule, powder or liquid form, and cover a board range of products including-

- Vitamins
- Minerals
- Herbs
- Meal supplements
- Sports nutrition products
- Natural food supplements

Before using supplements, you should consider what else you can do to improve your sporting performance.

The athlete's diet:

An athlete's diet should be similar to that recommended for the general public, with energy intake divided into-

- More than 55 percent from carbohydrates
- About 12 to 15 percent from protein
- Less than 30 percent from fat.

Conclusion:

Good nutrition can enhance sporting performance

A well- planned, nutritious diet should meet most an athlete's vitamin and mineral need, and provide enough protein to promote muscle growth and repair. Food rich in unrefined carbohydrates, like wholegrain breads and cereals, should form the basis of the diet.

Water is a great choice of fluid for athletes to help performance and prevent dehydration.

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Research in Nutrition and Rehabilitation & Care for Health

By Dr .V.V.Pande
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Nutrition:

Introduction - Nutrition is the science that deals with food and its uses by the body, we, like all other living things, need food to live food supplies the energy for every action, and functions of organs and systems.

Definition : The balance diet is the intake of appropriate types and adequate amount of food containing carbohydrate, Proteins Fats, Vitamins And Minerals".

Or

" A balance diet is that contains the proper amounts of Nutrient"

Function of diet a) It provides energy for the various activities of the body.

b) It helps the body to grow and replace worn out tissues.

c) It has the chemicals, which help to control the body functions and protect the body from diseases.

Factors affecting diet : Diet depends on the following factors.

a) Caloric requirement for the person.

b) Proportion of various substances in diet.

a) Caloric requirement for the person :- The requirement of the calories depending on type of work, exercise, age, sex, temperature of surrounding.

Approximately the adult man required 2500 k.cal. and female required 2000 k.cal to be taken in the diet per day.

* 1 gm Carbohydrate = 4.1 K.Cal

* 1 gm proteins = 4.1 K. Cal

* 1 gm Fats = 9.3 K. Cal.

Carbohydrate :-

Carbohydrate is arguably the most important source of energy for athletes . No matter what sport you play, carbs provide the energy that fuels muscle contractions.

Fat :

Fat provide an athlete's main fuel source during long durations low moderate intensity exercise and endurance sport sports like marathons and ultra events.

Proteins :

Athletes need proteins primarily to repair and rebuild muscle that is broken down during exercise and to help optimise carbohydrate storage in the form of glycogen.

Minerals , Vitamins and water :

To avoid the risk of hyponatremia (Low blood sodium concentration) it is more important for athletes to get adequate minerals , vitamins water , during and after exercise.

According to IDEA foundation, the role of nutrition is even more important than just what you eat, when you eat is equally important. Now research indicate that what athletes eat before, during and after a training session make a big difference to performance and recovery.

All above helps for athletes care.

Injury Information : 1) Acute (Traumatic Injury)

2) Chronic (Overuse Injury)

▪ Account for more than 50% of injuries in primary care practises.

▪ Classification stages.

1. Pain after activity only

2. Pain during activity . Does not restrict performance.

3. Pain during activity , Restricts performance.

4. Chronic persistent pain, even at rest.

* **Injury First Aid** -

▪ Follow the advice of your doctor.

▪ These instructions are supplemental.

- Chronic injuries may require physical therapy after doctors diagnosis.

*** Prices Treatment**

- * First aid for strains , strains , contusions, dislocation or uncomplicated fractures.

*** P- Protections**

- 1) Infected area protect by using the available first Aid suppliments.

*** R- Rest**

- 1) Stop using injury part - Continued abilities could cause further injury, delay healing, increased pain and bleeding.
- 2) injury, delay healing, increased pain and bleeding.
- 3) Use crutches to avoid bearing weight on injuries of leg , kneed or foot.
- 4) Use splint for injuries of the arm, elbow, wrist

*** I - Ice :**

1. Reduce swelling around injury , sudden cold, contract blood vessels.
2. Helps stop internal bleeding from injured capillaries and blood vessels.
3. Keep damp or dry cloth between skin and ice pack.
4. Do not apply ice for longer than 15 to 20 minutes at a time
5. For 3 days after injury - apply every hour for 10 to 20 minutes.

*** C- Compression -**

- 1) Hastens (Hurry) healing time by reducing swelling around injury.
- 2) Decreases seeping of fluid into injured area from adjacent tissue.
- 3) Use elasticised bandage or cloth.
- 4) Do not impair blood supply, too tight of compession may cause more swelling.

*** E- Elevation**

1. Elevate injured part above level of heart.
 - a) Decreases swelling and pain.

*** S- Support**

- a) Use objects and pillows for props.

Medication - 1Some doctors may recommend the use of a non-steriod anti-inflammatory such as Ibuprofen through out the duration of the injury.

- 2) Check with your physician.

Heat Treatment Causes daily in healing if applied too soon after a injury

- Wait at least 72 hours (3 days) - Wait until swelling is gone.
- Some experts recommend cold and heat treatments.

*** Management of Inflammation -**

- Decrease healing time * Decrease scare tissue formation.
- Decrease chances (suddenly) of reinjury.

* There will be prolonged healing time if usual activities are resumed too soon.

- Proper care and sufficient healing time before resuming activity should prevent permanent disability if it is a first time injury.
- If it is a repeat injury, complication are more likely to occur.

The above mentioned, athletics care can be provided for the injuries , strain, contusions , dislocations etc.

*** Management of High Carbohydrate Diet :**

- a) Maximizes intensity and endurance of Exercise.
- b) Maintains muscle Glycogen.
- c) Added to fluids for faster absorption.

d) Increase Carbohydrate before Exercise (70% of calories)

- 1) Start increase the day before.
- 2) Consume upto 2-5 hours before competition.
- 3) Liquid carbohydrate may be taken 60 minutes before.
- 4) Benefit appears to be regardless of Glycemic Index.

e) Avoid reactive Hypoglycemia from Insulin Sugar.

- 1) Avoided carbohydrates within 60 minutes of Exercise.
- 2) Highest Hypoglycemia risk with high Glycemic foods.
 - a) Glucose b) Sucrose c) Maltodextrin.
- 3) Low Glycemic foods may not result in Insuline Sugar.

f) During endurance competitive event

- 1) Consider carbohydrate intake during endurance event.
- 2) Several studies show performance benefit.
- 3) Solid carbohydrate may be equivalent to liquid.
- 4) Maintaining adequate hydration is paramount.

g) After competitive event.

- 1) Drink or eat 50 gm. high glycemic carbohydrate as soon as possible.
- 2) Repeat high Glycemic foods every 2 hours.
- 3) Take in over 100 gms. carbohydrate in 4 hours.
- 4) Take in over 600 gms carbohydrate in 24 hours.

*** Management : Vitamins and minetals.**

- 1) Multivitamin used by up to 80% of Athletes.
- 2) Supplementation results in no performance improvement.
- 3) Supplementation may be beneficial in special case.
 - (a) Iron & Calcium may be deficient in women.
 - (b) Vitamin B12 may be deficient in strict vegetarians.

*** Management : Water**

(1) Stay Hydrated

- a) Drink 1 quart non- caffeinated fluid per 1000 calories.
- b) Preload water 10-30 minutes before competition.
 - (1) Drink 250 to 1000 ml of liquid.
- c) During Exercise
 - 1) Drink 150 to 250 ml every 15 minutes.
 - a) Over hydration risk Hyponatremia.
 - b) Some recommend limit of 800 ml per hour.

(2) Drink cool water.

- a) Temperature for maximal water absorption 40 F.

(3) Add 5-8% Carbohydrate if Exercise, >45 minutes i.e. carbohydrate intake totals 30 to 75 grams per hour.

(4) Post event

- 1) Replace each pound of weight loss with 480 ml.
- 2) Replace half fluid losses in first 4 hours.
- 3) Replace half fluid losses in next 8 hours.

*** Conclusion & Nutritional Tips -**

- 1) It is important to eat at regular intervals ideally every 3 to 5 hours . This helps to keep blood sugar levels stable.
- 2) Most of us do not drink enough water, symptoms of dehydration include dizziness , lack of concentration, irritability and headaches. Aim to drink 6 to 9 glass of water per day for stay well hydrated.
- 3) Beware the hidden fat foods which are normally those tasty party foods, like quiche , sausages (open pesety with more jam and sweet) and cake and biscuits be kept to a minimum.
- 4) Bread , potatoes are the carbohydrate foods, these foods do not make you fat on their own, If it is taken with cheese, butter, increase the amount of fat.
- 5) Dairy products are high sources of fat and cholesterol, the best approach is to buy "Low fat" as they will provide you with all nutrients without the fat element.

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Importance Of Yoga In Physical Education

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Abstract

Yoga has been practiced for around 5,000 years. Several schools and organizations of yoga have emerged over time to time. It can be overwhelming at first to find a style of yoga that resonates with you. If you are a competitive athlete, it is best to tailor your yoga practice to your training schedule because a particular sport can develop certain muscle groups while ignoring others. Over time, this process causes imbalances in the muscles and joints, leading to overuse injuries. Yoga helps the muscles, tendons, and ligaments move through a full range of motion, thus cultivating balance and core strength which is a huge benefit to athletes in their chosen sports. A tri-athlete from San Diego, Heidi Resiert said, "I'm glad I found yoga and added it to my weekly workout routine. Not only do I feel stronger, but I also feel more confident that I will continue to be injury free." Another essential element in yoga is breath work (pranayama). The attention to breath during yoga can be considered one of the most important benefits to athletes. Learning to stay focused and centered through uncomfortable poses by concentrating on even inhalations and exhalations sets up the athlete to stay focused during a race or challenging workout. The mind-body connection in yoga is essential to helping athletes develop mental acuity and concentration. In addition, yoga helps you to relax not just tight muscles, but also anxious and overstressed minds. Yoga works not just in the sagittal plane, but in the frontal and transverse planes as well, ensuring well-rounded development. Being more relaxed will also aid in athletic performance. So, why not enhance your game performance and prevent injury by adding yoga to your training plan now.

Keywords: Athlete, yoga, injury, muscle, performance.

Introduction

Yoga is both preventive and therapeutic and has shown to offer both physical and mental benefits to the body and mind. Yoga is distinctly different from other kinds of exercise as it generates motion without causing strain and imbalances in the body. Therefore the practice is an ideal complement to other forms of exercise and an extreme advantage to any sport. The "postures" are the physical positions that coordinate breath with movement and we hold these positions to stretch and strengthen different parts of the body. They systematically work all the major muscle groups, including the back, neck, and shoulders, deep abdominals, hip and buttock muscles and even ankles, feet, wrists and hands. Although most poses are non aerobic in nature, they do in fact send oxygen to the cells in the body by way of conscious deep breathing and sustained stretching & contraction of different muscle groups. Yoga can help to check any imbalance in muscular development and will enable the body to function more efficiently. If the body is flexible and supple, it will be less prone to sports injuries as the joints will be kept lubricated. "When the surface of a lake is still, one can see to the bottom very clearly" this is impossible when the surface is agitated by waves. In the same way, when the mind is still we can control mental agitation by focusing on perfect concentration.

Fitness and Yoga in sports

Improved Strength

Routine and consistent practice of the various yoga *asanas* has helped me build strength and improve lean muscle mass. Most notably with respect to several muscle groups under-utilized in my chosen athletic disciplines of swimming, cycling and running. These gains have enhanced core body stability and significantly impeded overuse injury by strengthening the supportive but otherwise under-developed muscles surrounding the more utilized muscles, creating a more balanced and optimally functional overall strength.

Balance

As a swimmer, I have always been rather flexible. But my balance is historically horrible. But through a consistent yoga practice, my coordination and balance have improved immensely. Why is this important? Better balance and coordination means enhanced control over how I move my body, which in turn leads to better technique and form -- the brass ring every athlete spends a career refining, whether your focus is a swim stroke, golf swing, running stride, and jumpshot or wrestling move.

Flexibility

Yoga invariably improves joint and muscular flexibility, which is crucial to the body's overall structural soundness. Enhanced joint and muscle pliancy translates to a greater range of motion, or an increase in the performance latitude for a particular movement or series of movements. For example, a swimmer with supple shoulder and hip joints is able to capture and pull more water than a swimmer with a more limited range of motion. The result is more forward movement per stroke as well as enhanced muscular economy. A particular muscle group due to the amelioration in overall force that can be exerted with each movement. And although there is some dispute about the advisability of "over" stretching (for runners in particular), I remain a huge advocate, finding that the more I work to maintain my flexibility (something that wanes with age), the less likely I am to suffer an overuse injury.

Free Your Mind

The ability to create a stress free mind is a significant benefit of yoga practice. The physical practice is used as a tool to enhance breath control, which helps improve focus and concentration, allowing clarity of thought and clear decision making. A valuable tool in any sporting arena. Mental practice in any sport will teach you how to gain control of your emotional states, so arousal levels and anxiety don't impede your performance.

Meditation is a mental practice proven to

- Reduce anxiety and stress.
- Reduce cortisol levels and increase calming hormones.
- Improve cognitive function.
- Reduce blood pressure and heart rate.
- Increase immune function.
- These benefits combine to allow for better rest, sleep and recovery, as well as provide the ability to think more clearly under pressure.

Health and Yoga in Sports

Yoga has both preventive and therapeutic benefits. It has been shown to offer both physical and mental benefits to the body and the mind. The many physical benefits of hatha yoga are: it improves flexibility and muscle joint mobility; strengthens, tones, and builds muscles; corrects posture; strengthens the spine; eases back pain; improves muscular-skeletal conditions such as bad knees, tight shoulders and neck, swayback and scoliosis; increases stamina; creates balance and grace; stimulates the glands of the endocrine system; improves digestion and elimination; increases circulation; improves heart conditions; improves breathing disorders; boosts immune response; decreases cholesterol and blood sugar levels; and encourages weight loss. The mental benefits include it increases body awareness; relieves chronic stress patterns in the body.

Health Benefits of Yoga

1. Stable autonomic nervous system equilibrium, with tendency toward parasympathetic nervous system dominance rather than the usual stress-induced sympathetic nervous system dominance.
2. Pulse rate decreases.
3. Respiratory rate decreases
4. Blood pressure decreases (of special significance for hypo reactors)
5. Galvanic Skin Response (GSR) increases
6. EEG-alpha waves increase (theta, delta and beta waves also increase during various stages of meditation)
7. Cardiovascular efficiency increases
8. Respiratory efficiency increases (respiratory amplitude and smoothness increase, tidal volume increases, vital capacity increases, breath-holding time increases).
9. Gastrointestinal function normalizes
10. Endocrine function normalizes
11. Excretory functions improve
12. Muscular-skeletal flexibility and joint range of motion increases

13. Posture improves
14. Strength and resiliency increase.

Yoga Improves

- Strengthens deep connective tissue preventing or minimizing injury.
- Creates an overall body flexibility. Increases range of motion and mobility.
- Dramatically enhances physical balance by developing the athlete's awareness of his body's center place, thus
- keeping their body balanced in action, moment by moment, giving the ability to recover from or prevent falls, while enhancing agility and maneuverability.
- Improves circulation, massages internal organs and glands for optimum health.
- The yoga breath circulates and detoxifies the LYMPH FLUID to speed up recovery time from training 15%
- faster, eliminating fatigue.
- The yoga breath builds up increases one's life force energy.
- Enhances sensory acuity, mental focus, concentration, mental clarity, will power, and determination.

Conclusion

As highlighted above, researchers find out that yoga in sports is as important as other things that help us in different ways and different levels in a sportsman's life. We have improved our performance by daily yoga practicing in order to perform sporting actions efficiently and effectively, a person needs to have a high degree of concentration and focus with a mind that is calm and controlled, Yoga can help a sportsman to have evenness of mind and control of their thoughts even during stress and/or adversity. Yoga can play a key role in cultivating mind control and concentration which helps a sportsman to perform at their peak levels and yoga helps us a lot.

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Comparison Of Resistive Exercises And Yogic Exercises On Body Weight Reduction Of College Boys

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Abstract:

The purpose of the present study was be to find out the Comparison of Resistive Exercises and Yogic Exercises on Body Weight Reduction of College Boys.. Source :The source of the data was college boys of Yavatmal district. Selection The selected the 40 college boys from Yavatmal district. The age of the subjects are ranging between 18 to 28 years. Sampling The subject selected by using simple random sampling method. Formation of Groups :To check the body weight reduction of Resistive exercise was given to the 20 male college students, yogic exercise was given to the 20 male college students formed and groups are : 1) Resistive Exercise Group 2) Yogic Exercise Group Analysis To determine the significant difference in the means of Resistive Exercise and Yoga Exercise on body weight reduction between the two groups t-test was employed. Level of Significance was set at 0.05 level of confidence: In significant difference found in Resistive Exercise group ($t = 0.791 < Tab_{t_{0.05(19)}} = 2.093$) means between the pre-test and post-test. Insignificant difference found in Yoga Exercise group ($t = 0.563 < Tab_{t_{0.05(19)}} = 2.093$) means between the pre-test and post-test. Also Insignificant difference found in Post-test ($t = 0.355 < Tab_{t_{0.05(38)}} = 2.024$) of Resistive Exercise and Yoga Exercise group. Because when training was given to the subjects it takes some time to adapt to the body then slowly it reduces the body weight. Conclusion-Resistive Exercise group and Yoga Exercise group did not show the significant difference pre-test and post-test. Also in Post-test of both the groups. Hence also it is concluded that Resistive Exercise and Yoga Exercise did not affect more to reduce the body weight.

Key word: Resistive Exercises; Yogic Exercises ; Body Weight Reduction

Introduction:

Fitness is a product of exercise and training have been shown through research to possess important implication in the general health or people. However, fitness is more than a product of exercise. While exercise is necessary to obtain and maintain fitness, there is more involved than more physical activity. This makes it every body's business. It is a part of education but it is also a part of life. How does one become fit and how can this fitness be maintained throughout life.

Yoga:

Yoga means the experience of oneness or unity with inner being. This unity comes after dissolving the duality of mind and matter into the supreme reality. It is a science by which the individual approaches truth. The aim of all yoga practice is to achieve truth where the individual soul identifies itself with the supreme soul or God. The attitude towards Yoga and its acceptance has undergone a change over the last twenty years. This is true not only of our country where Yoga originated a thousand years ago, but also of far-flung countries all over the world.

Materials And Methods :

Purpose: The purpose of the present study was be to find out the Effect of Resistive Exercises and Yogic Exercises on Body Weight Reduction of College Boys.. **Significance:** The result of this study helps the college boys to know the importance of resistive and yogic exercises on body weight reduction. It is also helpful to the coaches and college boys to make the training schedule improve the fitness. **Objectives:** 1.Resistive Exercises on Body Weight Reduction of college boys.2.Yogic Exercises on Body Weight Reduction of college boys. 3. Also to see the exercise will be more effective on reduction of body weight. **Hypothesis:** Hypothesised that, resistive exercise reduces more the body weight than the yogic exercises of college boys. **Scopes:** Only 40 male college boys from Yavatmal district were selected for the study. Age of the college boys vary between 18 to 28 years.

Design Of The Study

Source :The source of the data was college boys of Yavatmal district. **Selection** The selected the 40 college boys from Yavatmal district. The age of the subjects are ranging between 18 to 28 years. **Sampling :** The subject selected by using simple random sampling method. **Formation of Groups** To check the body weight reduction of Resistive exercise was given to the 20 college students, yogic

exercise was given to the 20 college students formed and groups are : 1) Resistive Exercise Group 2) Yogic Exercise Group

Selection of Test and Criterion Measures

B) Body Weight and 6 Weeks Training Programmes

Arrange the resistive and yogic exercises programme on the morning only. This training programme were 6 weeks only and 6 days a week and on Sunday rest.

Analysis And Interpretation

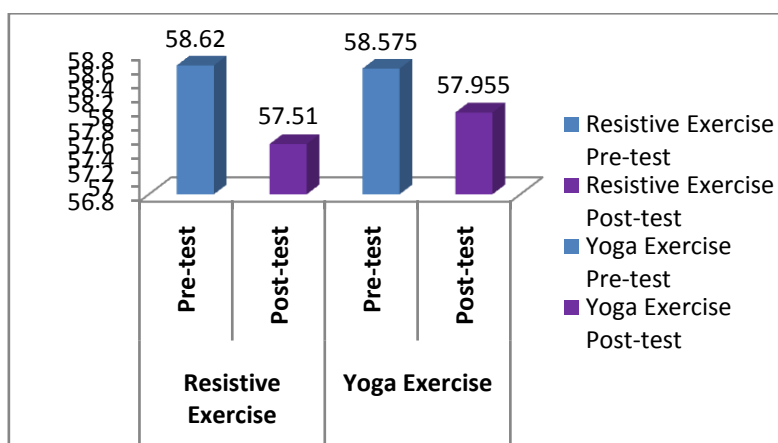
The conducted a comparison of resistive exercise and yogic exercises on body weight reduction of college boys. For the purpose of this study the researcher collected data on 40 male college students from Yavatmal city. **Analysis** :determine the significant difference in the means of Resistive Exercise and Yoga Exercise on body weight reduction between the two groups t-test was employed. **Level of Significance** was set at 0.05 level of confidence.

Summary of Mean, Standard Deviation and t-ratio for the Data on Body Weight Reduction of College Boys in Pre and Post-tests of Resistive Exercise and Yogic Exercise Group

Group	Test	Mean	Standard Deviation	Mean Difference	Standard Error	t-ratio
Resistive Exercise	Pre-test	58.620	4.407	1.110	1.403	0.791 [@]
	Post-test	57.510	4.464			
Yoga Exercise	Pre-test	58.575	3.577	0.620	1.101	0.563 [@]
	Post-test	57.955	3.385			

@ Not significant at 0.05 level

Tabulated $t_{0.05(19)} = 2.093$



Pre and Post-tests of Resistive Exercise and Yogic Exercise Group

The above table show that, Resistive Exercise group means between the pre-test and post-test is not significant, because the calculated t-value of 0.791 is less than the tabulated t-value of 2.093 at 0.05 level of confidence of 19 degree of freedom. Yoga Exercise group means between the pre-test and post-test is not significant, because the calculated t-value of 0.563 is less than the tabulated t-value of 2.093 at 0.05 level of confidence of 19 degree of freedom. Show that, the post-test means between Resistive Exercise and Yoga Exercise group is not significant, because the calculated t-value of 0.355 is less than the tabulated t-value of 2.024 at 0.05 level of confidence of 38 degree of freedom.

Findings :In significant difference found in Resistive Exercise group ($t = 0.791 < Tab t_{0.05(19)} = 2.093$) means between the pre-test and post-test. Insignificant difference found in Yoga Exercise group ($t = 0.563 < Tab t_{0.05(19)} = 2.093$) means between the pre-test and post-test. Also Insignificant difference found in Post-test ($t = 0.355 < Tab t_{0.05(38)} = 2.024$) of Resistive Exercise and Yoga Exercise group. Because when exercise training was given to the subjects it takes some time to adopt to the body then slowly it reduces the body weight.

Testing of Hypothesis

From the above findings it is observed that there is no significant difference found in resistive and yoga exercise groups also in not significant post test of both the groups. But through the mean

difference in pre and post test of both the groups it is observed that resistive exercise reduce more body weight than the yogic exercise of college boys. Hence the researcher hypothesis is accepted.

Conclusion-

Resistive Exercise group and Yoga Exercise group did not show the significant difference pre-test and post-test. Also in Post-test of both the groups. Hence also it is concluded that Resistive Exercise and Yoga Exercise did not affect more to reduce the body weight.

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Yoga And Stress Management

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Yoga originated in India From sanskrit word “yuj” meaning union between mind, body and spirit. Include ethical discipline, physical postures, breathing control and meditation .Yoga is not only stretching. There are 8 limbs of yoga. Physical postures called “Asana” is just one of the eight limbs of yoga Majority of types more concerned with mental and spiritual well being.

The Eight Limbs of Yoga

1. Yama

Five ethical guidelines regarding moral behavior towards others

- Ahimsa- Nonviolence
- Satya- Truthfulness
- Asteya- No stealing
- Brahmacharya- No lust or sexual activity within marriage.
- Aparigraha - Don't collect things that are not necessary.

2. Niyam

Five ethical guidelines regarding moral behavior towards others

- Sauch- Cleanliness
 - Santosh- Contentment
 - Tapas- Sustained Practice
 - Svadyay- Self Study
 - Ishvara Pranidhan- Surrender to God
3. **Asana-** Practice of yoga postures
4. **Pranayam-** Practice of breathing exercises
5. **Pratyahara-** Withdrawal of the senses, meaning that the exterior world is not distraction from the interior world within oneself
6. **Dharana-** Concentration, The ability to focus on something uninterrupted by external or internal distraction
7. **Dhyana -** Meditation
8. **Samadhi-** Bliss. Building upon Dhyana, the transcendence of the self through meditation. The merging of self with the universe.

What is Stress

The wear and tear our bodies experience. The state of heartene homeostasis. Stressors cause imbalance. Yoga can be a great help balance the imbalance. Stressors can be positive and negative.

Positive stressors- can help compel us to action, can result in a new perspective. Erg: Birth of a new baby, a job promotion, getting married.

Negative stressors- can result in feeling of distrust, rejection, anger etc. e.g.: death of a loved one, losing a job, getting divorced.

Clinical Significance of yoga

- | | |
|--|--|
| <ul style="list-style-type: none"> • Reduced stress • Spiritual growth • Sense of well being • Reduced anxiety and muscle tension • Increased strength and flexibility • Slowed aging • Sound sleep | <ul style="list-style-type: none"> • Improve many medical conditions: • Lower heart rate • Lower blood pressure • Allergy and asthma symptom relief • Smoking cessation help • Stress and Healthcare Providers |
|--|--|

How Yoga can help

Practicing yoga can be a best thing a provider can do for himself/herself. Doing simple “Pranayam” (breathing technique) in breaks can calm their mind. Practicing yoga for ½ hr. a day can make their body fit to take care of others. Yogic thought process- will teach not to work only for money Study at LTC, Mumbai , India to determine if practice of yoga has any effect on anxiety status

during routine activities and prior to exam done showed reduction in baseline anxiety as well as anxiety before exam.

Conclusion

A body with a stressful mind cannot be a healthy body. People who help others to keep their body healthy. Off course, to do so, first they need a healthy body without a stressful mind. Yoga helps the mind to become clear and pure and clear mind is not affected by stress.

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महिला कामगारांच्या कौटुंबिक ,आर्थिक व सामाजिक समस्या विषयक जाणीव जागृती

संशोधनकर्ता
डॉ.अर्चना शेखर देशमुख
एम.ए. गृहअर्थशास्त्र एम.फील

मार्गदर्शक
डॉ.संध्या देवळे
नागपुर

प्रस्तावना-

आज अर्थव्यवस्थेच्या सर्व क्षेत्रांमध्ये तसेच उद्योगांमध्ये पुरुषांच्या बरोबरीने महिला सुद्धा काम करित आहेत. उद्योग क्षेत्रांमध्ये महिला कामगारांना काम करतांना बौद्धिक श्रमापेक्षा शारीरिक श्रम जास्त प्रमाणात करावे लागतात. देशाची श्रमशक्ती हा त्याचा कोष असतो.

चुल व मुल या मुलभूत व पारंपारिक कार्यांशिवाय आज महिला अर्थार्जनाकडे वळल्या आहेत. कुटुंबाला आर्थिक साहाय्य करण्यासाठी महिला घराच्या बाहेर पडत आहेत. महिला कामगार हा एक स्वतंत्र वर्गच अस्तित्वात आलेला आहे. महिला कामगारांना मजुरी करतांना त्या शिक्षित असल्यास त्यांना शारीरिक श्रम जास्त करतांना दिसून येतात. वाढती लोकसंख्या, वाढती माहागाई, वाढते दारिद्र्य ,कुटुंबाचा मोठा आकार, पतीची व्यसनाधिनता इत्यादी कारणे त्यांना घराबाहेर अर्थार्जनासाठी काढण्यास जबाबदार आहेत.

ग्रामीण भागातील महिला या शेतीमध्ये सक्रीय सहभागी असलेल्या दिसून येतात. शिवणकाम, दुग्धपालन,अश्या विविध लघु व कुटीर उद्योगांमध्ये महिला कामगारांचा सहभाग दिसून येतो. परंतु हे सर्व करत असतांना तिला घरातील सर्व कामे सांभाळूनच करावे लागते. महिलांची या ठिकाणी दुहेरी भूमिका असते. अर्थार्जनासाठी बाहेर पडल्यावर त्यांच्या समोर विविध समस्या निर्माण होतात. त्यात कौटुंबिक समस्या, सामाजिक समस्या,व आर्थिक समस्या निर्माण होतात.

महिला कामगारांना घराच्या बाहेर पडल्यामुळे समाजाशी त्यांचा अगदी जवळून संपर्क येतो. तिची आर्थिक मिळकती मुळे कुटुंबात आर्थिक स्थैर्य येते, परंतु तिची शारीरिक ओढाताण खूप होते. एकुण तिला कौटुंबिक समस्यांना तोंड द्यावे लागते.

भारतीय महिला जीवनात राष्ट्रीय, सामाजिक, राजकीय व कौटुंबिक प्रगती घडवून आणत आहे. एकुण महिलांची कामाच्या क्षेत्रात प्रगती होत आहे .महिला कामगारांच्या समस्या निर्माण होतांना काही गोष्टी महत्वपूर्ण जबाबदार आहेत. जश्या काम करणा-या महिलापैकी ९४% टक्के महिला असंघटित क्षेत्रात काम करतात, असंघटित क्षेत्रात मजुरीचे दर कमी, काम मिळण्याची अनिश्चितता, अनियमितता तसेच वध्दापकाळासाठी कुठलीही तरतुद नसते.

गरीबी ही आपल्या देशातील सर्वच दुबल घटकांची प्रमुख समस्या आहे. घरातील महिला काम करण्यासाठी बाहेर पडल्या, त्यामुळे त्यांच्यामध्ये समाजाशी संबंध आल्याने समाजात काय घडामोडी घडत असतात, याची पूर्ण कल्पना येते व त्यामुळे त्यांच्या मध्ये निर्णय घेण्याची क्षमता निर्माण होते. कोणत्याही कठिण प्रसंग कुटुंबावर आल्यास त्या न घाबरता योग्य निर्णय घेवू शकतात. या सर्वांमुळे सामाजिक स्थितीमध्ये बदल झालेला दिसून येतो. महिला पुरुषांच्या बरोबरीने विविध क्षेत्रात काम करू शकतात. हे मान्य झालेले आहे. तरीही सामाजिक दुष्ट्या महिलांच्या बाबतीत महिला पुरुष समानतेच्या न्यायाने वागणुक दिली जात नाही. आर्थिक शैक्षणिक, सांस्कृतिक दुष्टीनेही दुय्यम स्थान दिले जाते. महिलांची गुणवत्ता पात्रता व कामाची पध्दत याविषयी वारंवार अविश्वास व्यक्त केला जातो.

विषयाचे महत्व-

आजच्या आधुनिक युगात आर्थिक क्षेत्रात महिला या पुरुषांच्या बरोबरीने अर्थार्जन करत आहेत. औद्योगिक क्षेत्रात काम करणा-या महिला कामगारांच्या समस्या वेगळ्या आहेत. कारण या ठिकाणी मालाचे उत्पादन होते व त्याठिकाणी एखादी चुक झाल्यास खूप मोठे नुकसान उत्पादन क्षेत्रात होते. त्यामुळे या महिला कामगारांच्या काम करतांना त्यांची मानसिकता, त्यांची शारीरिक क्षमता, त्यांना कामात येणा-या अडचणी चा विचार होणे अत्यंत आवश्यक आहे. देशाच्या आर्थिक क्षेत्रात या महिलांचे खूप मोठे योगदान आहे.

संशोधनाची उद्दिष्ट्ये-

१. महिला कामगारांच्या कौटुंबिक समस्या जाणून घेणे.
२. महिला कामगारांच्या आर्थिक प्राप्ती बाबत आणि त्यांच्या आर्थिक समस्यांचा अभ्यास करणे.
३. महिला कामगारांच्या सामाजिक समस्या जाणून घेणे.

संशोधनाची गृहितकृत्ये-

१. कामामुळे महिला कामगारांच्या कुटुंबाच्या आर्थिकस्थितीत सुधारणा होते.
२. कुटुंबातील सदस्यांच्या पोषणविषयी दर्जात सुधारणा होते.
३. अधिक शारीरिक श्रम करावे लागल्याने महिला कामगारांच्या आरोग्यावर दुष्परिणाम होतो.
४. आर्थिक स्थितीतील वाढ व राहणीमानाचा दर्जात वाढ त्यामुळे कुटुंबाच्या सामाजिक प्रतिष्ठेत वाढ.

तथ्य संकलना करीता - तथ्य संकलन दोन स्रोताव्दारे करण्यात आले. दुय्यम स्रोत व प्राथमिक स्रोत

प्राथमिक तथ्य संकलनाकरिता अनुसुचि व प्रश्नावली, मतावली चा वापर करण्यात आला. अनुसुचि तयार केल्यानंतर नमुना व्यतिरिक्त १० महिला कामगारांची निवड करुन पथदर्शक अध्ययन (pilot Study) करण्यात आले. महिला कामगारांची संशोधन अनुसुचिच्या आधारे प्रत्यक्ष मुलाखत घेण्यात आली. सहभागी झालेल्या या छोट्या समुहावर सर्व तथ्य तपासण्यात आले, आणि तपासात आढळलेल्या त्रुटी ओळखुन प्रमाणित पध्दतीचा वापर करुन त्यात सुधारणा करण्यात आल्या.

गुणपध्दती-

महिल्या कामगारांच्या कौटुंबिक समस्या, सामाजिक समस्या व आर्थिक समस्या यासंबंधी जागरुकतेसंबंधी विधाने करण्यात आली व त्या विधानांना गुणांकन करण्यात आले.

अं क्र	समस्या	विधान क्र	विधानांना करण्यात आलेले गुणांकन		
			पुर्णतः	अंशतः	असहमत
१	कौटु बिक	१,२,९	१	२	३
		३,४,५,६,७,८,१०	३	२	१
२	आर्थिक	१,२,३,४,५,६,	१	२	३
		७,८,९	३	२	१
३	सामाजिक	१,२,३,४,५	३	२	१

प्रस्तुत संशोधनासाठी १०० महिला कामगारांची निवड करण्यात आली.

निष्कर्ष-प्रस्तुत संशोधनाच्या प्राप्त परिणामाच्या आधाराने खालील निष्कर्ष काढता येतात.

१. महिला कामगारांना अनेक कौटुंबिक , आर्थिक व सामाजिक समस्या असतात.
२. मा हला कामगारांना शारिरीक श्रमामुळे त्यांच्या आरोग्यावर परि रणाम होतो.
३. मा हला कामगारांची आर्थिक स्थिती सुधारल्याने राहणीमानात मुलांच्या पालनपोषणाचा दर्जा सुधारतो.

चर्चा व परिणाम-

१. महिला कामगारांना काम व घरकाम यामधील ताणामुळे काम सोडावेसे वाटते
१.पुर्णत सहमत २. अंशत सहमत ३. असहमत
या विधानाशी महिला कामगार पुर्णत सहमत दिसुन आले.
२. महिला कामगारांना सामाजिक कार्यात कामामुळे सहभागी होता येत नाही.
१.पुर्णत सहमत २. अंशत सहमत ३. असहमत
या विधानाशी मा हला कामगार असहमत ि दिसुन आले.
३. महिला कामगारांना कु टुंबातील महत्वाच्या निर्णयात मत विचारले जाते
१.पुर्णत सहमत २. अंशत सहमत ३. असहमत
या विधानाशी मा हला कामगार .पुर्णत सहमत दिसुन आले.

शिफारसी-

१. अंसघठीत क्षेत्रातील महिला कामगारांच्या कौटुंबिक समस्यांवर सखोल अध्ययन
२. मा हला कामगारांचा विकास आणि आर्थिक स्वावलंबन ही उी दष्टये महत्वाची रोजच्या जगण्यात उपयोगी होतील व ज्यातून पैसेही मिळतील अशी कौशल्ये शिकवावीत.

संदर्भ ग्रंथ-

- १ नाडगोंडे गुरुनाथ, औद्योगी गक समाजशास्त्र, प्रकाशक- अनंत कु लकणी कॉन्टिनेन्टल प्रकाशन विजयातकर, पुणे १९७८
- २ फडणवीस मृणाि लनी देशपांडे प्राची,श्रमअर्थशास्त्र , पिंपळापुरे अॅन्ड कं पि ब्लिशर्स नागपुर, जुलै २००२.
- ३ जहागिरदार दि.व्य.आर्थिक जगत, प्रकाशक सेंटर फॉर एकोनॉमिक अॅन्ड सोशल स्टडीज १२,अमरावती जुलै २००५

योग: कर्मसु कौशलम्

डॉ. आशीष बिल्लौरै

ग्रंथपाल शास. महाविद्यालय बनखेड़ी
शास. गृहविज्ञान स्नातकोत्तर अग्रणी महा. होशंगाबाद

डॉ. ज्योति जुनगरे

क्रीड़ा अधिकारी,

सारांश

प्रमुख हिंदू ग्रंथ श्रीमद्भगवद् गीता में श्रीकृष्ण ने योगी शब्द को कुछ इस तरह से परिभाषित किया है- “व्यक्ति स्वयं से संयोग करके, मन को पूरी तरह से अनुशासित कर सभी इच्छाओं से स्वतंत्र हो कर, जब केवल स्वयं में ही लीन हो जाता है, उसे योगी कहा जाता है।” इसी तरह से योग के विषय में श्रीमद्भगवद् गीता में उल्लेखित किया गया है-“योगः कर्मसु कौशलम्” अर्थ स्पष्ट है कर्मयोग ही मुख्य है। कर्म के प्रति उचित भावनात्मक अभिकृति ही ज्ञान प्राप्ति का सर्वश्रेष्ठ साधन है। इससे खुशी, संतोष, व स्वयं में लीन होने की रूचि उत्पन्न होती है।

योग का वास्तविक अर्थ मनुष्य की जीवन शक्ति को ऊपर उठाना है। इस धरातल के समस्त प्राणियों में से मनुष्य ही एक मात्र ऐसा प्राणी है जो योगाभ्यास कर अपना ज्ञानवर्धन कर सकता है। कुछ व्यक्तियों के लिए योग आध्यात्म का एक रूप है। वे इसके माध्यम से ‘कुंडलिनी’ जागृत कर ईश्वर आराधना करते हैं। अधिकांश व्यक्तियों के लिए योग शारीरिक और मानसिक अभ्यासों का एक निष्कृत क्रम है, इसे अपना कर वे स्वस्थ लाभ प्राप्त करते हैं और ऐसा करने की प्रेरणा अन्य लोगों को भी देते हैं। शारीरिक स्तर पर इस पद्धति में विभिन्न योग मुद्राएं, ‘आसन’ शामिल हैं। जिनका प्रमुख उद्देश्य शरीर को स्वस्थ रखना है। मानसिक स्तर पर मन को अनुशासित करने के लिए श्वसन, व्यायाम, ‘प्राणायाम’ या ‘ध्यान’ शामिल हैं। कुल मिलाकर योग का अंतिम लक्ष्य व्यक्ति को स्वयं से ऊंचे उठा कर ज्ञानोदय की उच्चतम अवस्था प्राप्त करने में मदद करना है।

दुनियाके अधिकांश व्यक्ति लंबे समय तक योग को एक धर्म विशेष से जोड़कर देखते रहे। वास्तविकता यह है कि योग कोई धर्म नहीं है। यह जीवन जीने की एक कला है। जिसका लक्ष्य है- स्वस्थ शरीर में स्वस्थ मन को स्थापित करना है। मनुष्य का अस्तित्व शारीरिक, मानसिक और आध्यात्मिक है। योग इन तीनों को संतुलित कर स्वयं को विकास में मदद करता है। कोई भी व्यक्ति योग के शारीरिक व्यायाम के स्वरूप जैसे एरोबिक्स, आसन आदि को अपनाकर सुगठित काया प्राप्त कर सकता है। वहीं योग के ध्यान स्वरूप जैसे आसन, प्राणायाम, ध्यान आदि को अपना कर अपने शरीर की अंदरूनी तंदरूस्ती को भी सुनिश्चित कर सकता है। साथ ही वह अपने आध्यात्मिक या सूक्ष्म शरीर को विकास कर अपने ईश्वर की आराधना कर सकता है। इस प्रकार योग आपको किसी धर्म विशेष की ओर नहीं अपितु आपके शारीरिक और आंतरिक सौष्ठव के प्रति सचेत रखता है। योग अभ्यास शरीर में दुबारासे ब्रह्माण्डीय ऊर्जा भर देता है। योग के प्रभाव से सही संतुलन और सद्भाव प्राप्त करने में स्व-चिकित्सा को प्रोत्साहित करता है। योग ही वह माध्यम है जो शरीर से विषाक्त पदार्थ और मन से नकारात्मक विचार को बाहर निकाल देता है। योग व्यक्तिगत शक्ति में वृद्धि करता है, आत्मबोध में सुधार करता है, सजकता, ध्यान और एकाग्रता बढ़ाने में मदद करता है। यह बच्चों, बड़ों और निरंतर अभ्यास करने वालों के लिए विशेष रूप से महत्वपूर्ण है। इसके प्रभाव से परानुकंपी तंत्रिका तंत्र (पैरास्मिपैथिक नर्वस सिस्टम) सक्रिय होता है। जो तनाव और तनावग्रस्तता में कमी करता है। योग के प्रभाव की वजह से साधक फिर से युवा और उत्साहित महसूस करते हैं। इस प्रकार, योग प्रत्येक साधक को शरीर और मन को नियंत्रित करने के लिए शक्ति प्रदान कर एक अद्वितीय ज्ञान उत्पन्न करता है। इस ज्ञान के बल पर व्यक्ति की उन्नति तीव्रता से करता है।

मुख्य बिंदू

योग, तनाव, तनावग्रस्तता, परानुकंपी तंत्रिका तंत्र, कर्मयोग, भावनात्मक अभिकृति, स्वयं में लीन होना, योगाभ्यास, ज्ञान, ज्ञानवर्धन, मानसिक, आध्यात्मिक, एरोबिक्स, सूक्ष्म शरीर, ईश्वर, आराधना, धर्म विशेष, शारीरिक, आंतरिक सौष्ठव, ब्रह्माण्डीय ऊर्जा, स्व-चिकित्सा, विषाक्त पदार्थ, नकारात्मक, व्यक्तिगत शक्ति, आत्मबोध, सजकता,

ध्यान, एकाग्रता, लचीलापन, मांसपेशीयां, प्रतिरक्षा, प्राचीन परंपरा, समग्र दृष्टिकोण, वैज्ञानिक अविष्कारों, स्वास्थ्य सहलाकार, आत्मविश्वास, मनोविज्ञान, मनीषियो, सर्वांगीण, विकास के प्रक्रम,

प्रस्तावना

भारतीय मनोविज्ञान में हमारे मनीषियों ने योग के मानसिक एवं शारीरिक स्वास्थ्य के महत्वपूर्ण उपाय के रूप में विश्लेषित किया है। योग भारतीय धरातल पर उपजी वह तकनीक है जो मनुष्य के सर्वांगीण विकास के प्रक्रम का निर्धारण करती है और मानव की एक विद्या के रूप में भारतीय जनमानस ने इसे जीवन शैली के रूप में स्वीकार भी किया है यद्यपि संस्कृत के युज शब्द से उत्पन्न योग का अर्थ जोड़ना मिलना, या युग्मीकरण होता है तथापि योग, शब्दयोग, महायोग, दयायोग, राजयोग, कर्मयोग कई रूपों में यह प्रचलित है। योग कार्य के प्रति उचित भावनात्मक अभिकृति द्वारा खुशी, संतोष, प्रदान करता है। व्यक्ति में समय और शक्ति के मूल्य को पहचानने की क्षमता के विकास के अतिरिक्त शारीरिक, मानसिक, दैहिक, व बौद्धि संतुष्टि एवं ध्यान केन्द्रण की शक्ति विकसित करता है। अनेकों शारीरिक एवं मानसिक तनावों से बचाव हेतु योग महत्वपूर्ण तकनीक के रूप में प्रमाणित प्रविधि है।

योग और ज्ञानोदय

योग के अभ्यास की कला व्यक्ति के मन, शरीर और आत्मा को नियंत्रित करने में मदद करती है। यह भौतिक और मानसिक संतुलन कर शरीर और मन को प्रफुल्लित होने का ज्ञान करता है। तनाव और चिंता को कम करता है। यह शरीर में लचीलापन, मांसपेशियों को मजबूत करने और शारीरिक स्वास्थ्य को बढ़ाने ज्ञान भी प्रदान करता है। यह श्वसन, ऊर्जा और जीवन शक्ति में सुधार लाता है। योग आसन से शक्ति, लचीलापन और आत्मविश्वास का निर्माण होता है। योग का नियमित अभ्यास करने से वजन में कमी, तनाव से राहत, प्रतिरक्षा में सुधार और एक स्वस्थ जीवन शैली बनाए रखने में मदद प्राप्त हो सकती है। योग भारत की प्राचीन परंपरा का एक अमूल्य उपहार है। यह पांच हजार साल पुरानी परंपरा है। यह मन और शरीर की एकता, विचार और कार्य, संयम और पूर्ति, मनुष्य और प्रकृति के बीच सद्भाव, स्वास्थ्य और कल्याण के लिए एक समग्र दृष्टिकोण है। यह सिर्फ व्यायाम नहीं बल्कि अपने आप, दुनिया और प्रकृति के साथ एक होना है। योग हमारी जीवन शैली में बदल कर और चेतना विकसित कर, यह तंदरूस्ती प्रदान करने में मदद कर सकता है। आइए हम एक अंतर्राष्ट्रीय योग दिवस अपनाने की दिशा में काम करते हैं।“

विद्यार्थियों में योग से ज्ञानोदय

विद्यार्थियों के जीवन में योग शिक्षा अति महत्वपूर्ण है। जिस तरह शिक्षा के बिना जीवन अधूरा है ठीक उसी तरह योग के बिना अच्छे स्वास्थ्य की कल्पना भी बेकार है। यदि बचपन से ही बच्चों को योग शिक्षा मिले तो वे शारीरिक स्वास्थ्य का महत्व भलीभांति समझ सकेंगे। साथ ही उसे जीवन भर अपना सकेंगे। वैज्ञानिक अविष्कारों के इस युग में शरीर को फिट रखने के लिए असंख्य संसाधन हैं, लेकिन क्या यह साधन सभी के लिए समान रूप से मौजूद हैं ? शायद नहीं !! क्योंकि कुछ लोग इसका लाभ ही ले पा रहे हैं, लेकिन योग सभी के लिए समान रूप से उपलब्ध है। इसमें किसी भी तरह का कोई खर्चा नहीं है। योग का आनंद और स्वास्थ्य लाभ सभी व्यक्ति समान रूप से उठा सकते हैं बस जरूरत है सही तरह से योग को सीखने की है। विद्यार्थियों के लिए योग लाभदायक इसलिए भी है इससे बच्चों के मन-मस्तिष्क में स्थिरता आती है। बच्चे अपनी पढ़ाई में ध्यान केंद्रित कर पाते हैं। योग के प्रभावकारी गुणों को तो पूरी दुनिया ने स्वीकार किया है। इसी वजह से दुनिया के अधिकांश देशों में योग शिक्षा को अनिवार्य किया गया है। योग के प्रभाव को देखते हुए आज चिकित्सक एवं वैज्ञानिक योग के अभ्यास की सलाह देते हैं।

मानसिक रोग और योग ज्ञान

अनेक मानसिक रोगियों पर किए गए व्यक्तित्व अध्ययनों, प्रेक्षणों व अन्य शोध के आधार पर अब यह स्पष्ट हो चुका है कि शारीरिक तथा मानसिक अंतरक्रिया में मन की स्थिति की मुख्य भूमिका होती है। एक व्यक्ति में अनेको मानसिक योग्यताओं, दुर्बलताओं तथा मनोग्रंथियों से उसमें मनोविकृति उत्पन्न हो जाती है। ठीक उसी प्रकार उसमें, अनेक अर्जित मानसिक योग्यताओं, कुशलताओं व धनात्मक अभिकृतियों के विकास से उसमें मानसिक स्वास्थ्य होते देखा जाता है। इसके आधार पर ही वह जीवन की विभिन्न कठिनाईयों व चुनौतियों पर अपना सहज नियंत्रण स्थापित करते देखा जाता है और इस प्रक्रम में अपने व्यक्तिगत जीवन में एक सुखमय स्थिति का अनुभव करते हैं। तनाव या प्रतिबल आधुनिक समाज की एक बड़ी समस्या है। आधुनिक शोधों से पता चलता है कि करीब 75 प्रतिशत रोगों का कारण तनाव

ही है। यहां तक की हृदय रोग एवं कैंसर जैसे जान लेवा रोग में भी तनाव की भूमिका निर्धारित हो चुकी है। साधारण रूप से कहा जा सकता है कि कोई भी घटना या परिस्थिति जो व्यक्ति को असाधारण अनुक्रिया करने के लिए बाध्य करता है, तनाव कहताला है। जब व्यक्ति एक विशेष तरह की मनोवैज्ञानिक अनुक्रियाएं जैसे चिन्ता, क्रोध, आक्रमकता आदि एवं दैहिक माँगों (बीमारी की अवस्थायें, व्यायाम, अत्यधिक तापक्रम आदि) या वैसे पर्यावरण एवं सामाजिक परिस्थितियों जिसे सचमुच में हानिकारक, अनियंत्रण योग्य तथा निबटाने के मौजूद साधनों को चुनौती देने वाले कारक के रूप में मूल्यांकित किया जाता है।

मनोविज्ञानविद् रिचर्ड वाईजमैन का कहना है कि अपना भाग्य संवारने वाले लोग इस प्रक्रिया में चार मूलभूत सिद्धांतों को इस्तेमाल करते हैं। वैसे स्वयं इसके बारे में सचेत नहीं होते हर्टफोर्टशायर विश्वविद्यालय में एक शोध ईकाई के प्रमुख डॉ. वाईजमैन ने इस अध्ययन के दौरान सर्वाधिक भाग्यवान और सबसे ज्यादा अभागे माने जाने वाले 400 लोगों के जीवन का विस्तृति अध्ययन किया है और इस क्रम में उन्होंने अनेक तरह के मनोविश्लेषण, पदक, सवाल प्रयोगशाला तकनीकों और लम्बे-लम्बे साक्षात्कारों का इस्तेमाल किया है। इनका यह अध्ययन “द लक फेक्टर” के नाम से पुस्तक के रूप में प्रकाशित हुआ। डॉ. वाईजमैन कहते हैं कि भाग्यवान लोग वे होते हैं जो जीवन में मिले सुअवसरों और अनजाने ही चार मूलभूतसिद्धांतयह होता है कि वे अवसर बनाने, अवसरों का विस्तार कर लेते हैं, वे अपने संगी-साथियों से तालमेल के जरिए अपने लिए अवसर बनाने, अवसरों को पहचानने तथा उसका तुरंत लाभ उठाने में माहिर होते हैं। यह सब वे अत्यंत स्थिर चित्त एवं नये अनुभवों के प्रति एक तरह के खुलेपान के साथ करते हैं भाग्यशाली दिखने वाले लोगों का दूसरा सिद्धांत अपनी सहज बृद्धि और अहसासों के आधार पर प्रभावी तरीके से फैसला करने का होता है। उनकी यह योग्यता योग के नियमित अभ्यास से और भी बढ़ जाती है। इस अध्ययन के आधार पर हम कह सकते हैं कि मानसिक स्वास्थ्य और तनाव का संबंध गहरा है क्योंकि तनाव की स्थिति में व्यक्ति का मानसिक स्वास्थ्य ठीक नहीं कहा जा सकता। आज की व्यस्तता और भागती जिन्दगी में तनाव हमारे मस्तिष्क में स्थायी रूप से घर बना लेता है। तनाव किसी भी कारण से उत्पन्न हो सकता है, जैसे जीवन की संघर्षपूर्ण घटनायें प्रेरकों का संघर्ष, दिन-प्रतिदिन के कार्य, कार्य से उत्पन्न तनाव, व पर्यावरणी स्रोत। उक्त स्थितियों में योग हमें इनसे निबटने का ज्ञान प्रदान करता है।

मानसिक स्वस्थ तथा शारीरिक स्वस्थ एक दूसरेके पूरक है। सामान्यतः स्वस्थ शारीरिक व मस्तिष्कीय विकास पर ही सम्बंधित व्यक्ति का व्यापक रूप से मानसिक विकास आधारित रहता है। साथ ही मानसिक रूप से स्वस्थ व्यक्ति का शारीरिक स्वस्थ भी उत्तम स्तर का होता है। अतीत में प्रायः धारणा बनी रही है कि यदि शरीर पूर्णतः स्वस्थ है तभी मन भी पूर्णतः स्वस्थ रहता है। यदि शरीर निर्मल तथा शुद्ध रहता है, तब मन भी प्रायः स्वच्छ तथा शुद्ध ही रहता है। इस दृष्टिकोण के आगे कुछ अन्य संशोधित व विकसित रूप भी रहा है। इन दोनों में पारस्परिक प्रतिक्रियाओं का संबंध है और शरीर तथा मन परिस्थिति के अनुसार, एक दूसरे को निरंतर प्रभावित करते रहते हैं। अतः शारीरिक और मानसिक प्रक्रियाओं में पारस्परिक रूप से गहन संबंध रहता है।

योग की आवश्यकता क्यों

आपके मन में एक प्रश्न बार-बार आता होगा की हम योग क्यों करें ? जबकि हमें तो मानसिक और शारीरिक रूप से भी कोई समस्या भी नहीं है। जब हमारे पास समय ही नहीं है और हम स्वस्थ भी हैं तो फिर हमें योग की क्या आवश्यकता ?

योग हमारे शरीर के साथ-साथ हमारे मन को भी स्वस्थ रखता है। योग से आनंद की अनुभूति होती है जैसे एक तरफ सुख और दूसरी तरफ दुःख होता है जबकि आनंद सुख से भी ऊपर होता है। जब पहली बार योग करते हैं तब समझ में आता है आनंद क्या होता है। योग शब्द के दो अर्थ बताये गये हैं और दोनों ही अर्थ जीवन के लिए बेहद महत्वपूर्ण हैं। पहला अर्थ है - जोड़ और दूसरा अर्थ है - समाधि (ध्यान)। जब तक हम अपने शरीर को योग कला से नहीं जोड़ते, ध्यान तक जाना असंभव है। ऊपर हमने जिस आनंद की चर्चा की उसकी सीढ़ी योग के दूसरे अर्थ ध्यान से शुरू होती है। ध्यान योग का अतिमहत्वपूर्ण भाग है। ध्यान के माध्यम से शरीर और मस्तिष्क का संगम होता है। ध्यान यानि मेडिटेशन का डंका हमारे देश से भी ज्यादा विदेशों में गूंज रहा है। आज के समय में जीवनयापन के लिए दिन-रात भाग-दौड़, काम का प्रेशर, रिश्तों में अविश्वास और दूरी आदि के कारण तनाव बहुत ही तेजी से बढ़ रहा है। ऐसे माहौल में मेडिटेशन से बेहतर और कोई विकल्प नहीं है। ध्यान से मानसिक तनाव दूर होता है और मन को गहन आत्मिक शांति महसूस होती है जिससे

कार्य शक्ति में वृद्धि होती है, नींद अच्छी आती है, मन की एकाग्रता एवं धारणा शक्ति बढ़ती है। योग का प्रमुख कार्य व्यक्ति की क्षमता का विकास करना है इससे निम्न लाभ होते हैं।

1. “योगः कर्मसु कौशलम्”- गीता का कर्म योग ही इसका मूल है योग कर्म के प्रति उचित भावनात्मक अभिकृति उत्पन्न करता है। इससे खुशी, संतोष, व रूचि उत्पन्न होती है।
2. योग के द्वारा व्यक्ति “समय और शक्ति” के मूल्य को पहचान सकने में सक्षम हो सकता है। समय और शक्ति का तालमेल रखते समय व्यक्ति कम शक्ति लगाकर अधिक कार्य सम्पन्न कर सकता है।
3. कर्मयोग अहंकार रहित होता है, तथा वह मुक्त कर्म या समन्वित कर्म होता है। इससे शारीरिक, मानसिक, दैहिक व बौद्धिक रूप से आराम पहुंचता है।
4. योग में अभ्यास तथा धर्मविधि के माध्यम से व्यक्ति अपनी सांस को नियंत्रित एवं नियमित करने की कोशिश करता है, अपने ध्यान को किसी बिन्दु पर केन्द्रित करने की कोशिश करता है, बाह्य वातावरण पर से ध्यान हटा लेता है। मन में किसी विशेष प्रतीक या घटना की प्रतिमा रखता है तथा विशेष यौगिक मुद्रा में शरीर को लगभग 15 मिनट आत्म के अन्द्रियता से वह एक परिवर्तित चेतना को अनुभव करने लगता है। आनंद चन्ना एवं सिंह ने अध्ययनों में पाया कि नियमित योग की स्थिति में तनाव या बैचेनी के भावा की अवस्था होने पर जल्द ही सामान्य स्थिति प्राप्त हो जाती है।
5. योग का मौलिक अर्थ मन से है पर आजकल इसका अर्थ “ज्ञानोदय” से जाना जाता है।
6. योग का एक प्रचलित रूप “अंतर्ज्ञानमन” है जो 1970 के दशक में महर्षि महेश योगी द्वारा प्रतिपादित है जो “मंत्रम योग” का एक प्रारूप है जिसमें व्यक्ति कुछ मंत्रों को बार-बार दोहराता है और वह अपना ध्यान पूर्णता: इसी क्रिया मंत्र पर देता है न कि इधर-उधर की चीजों पर। इससे ध्यान एकाग्रता बढ़ती है जो तनाव में कमी लगती है।
7. कानेलाकोस, फर्ग्युसनल के अनुसार इससे व्यक्ति द्वारा सीखने के निष्पादन में वृद्धि हो जाती है तथा आक्रमता विद्वेष तथा दुश्चिंताके स्वर में कमी हो जाती है।

संदर्भसूची:-

1. आधुनिक सामान्य मनोविज्ञान, प्रीति वर्मा
2. आधुनिक सामान्य मनोविज्ञान, अरूण कुमार सिंह
3. योगासन और स्वास्थ्य, राजेश दीक्षित
4. नैदानिक मनोविज्ञान, अरूण कुमार सिंह
5. सामाज मनोविज्ञान, डॉ. डी.एन. श्रीवास्तव
6. मनोवैज्ञानिक सम्प्रदाय, डॉ. केदारनाथ शर्मा

आदिवासी आश्रम शाळेतील विद्यार्थ्यांच्या शारीरिक स्वास्थ्य करिता योगाची भूमिका

डॉ. पुनम राम देशमुख

प्रस्तावना :-

उत्तम स्वास्थ्य मिळविण्यासाठी जेवढे महत्त्व संतुलित आहाराचे आहे. तेवढेच महत्त्व व्यायामाचेही आहे. दररोज व्यायाम करण्याने शरीर स्वास्थ्य सुंदर आणि बलीष्ट बनते. रक्ताचे शुद्धीकरण होते. शरीर हलके फुलके बनते शक्ती वाढते.

लहान मुले ही प्रत्येक राष्ट्राची अमूल्य संपत्ती असते. या संपत्तीचे जतन करणे राष्ट्रहीताच्या दृष्टीने महत्वाचे असते. त्यामुळेच स्वास्थ्य त्रिकोणाला (आहार, योगा, निद्रा) अतिशय महत्त्व प्राप्त झाले आहे. आदिवासी विद्यार्थ्यांची वाढ, पोषण, उत्तम स्वास्थ्य, आहार, योगा व निद्रा या सर्व बाबी स्वास्थ्य त्रिकोणात समाविष्ट होतात. विद्यार्थ्यांच्या या गरजापूर्ण होणे किंवा न होणे हे मुख्यतः कुटूंबाच्या आर्थिक, सामाजिक परिस्थितीवर अवलंबून असते.

उद्दिष्टे :-

- १) आदिवासी आश्रमशाळेतील विद्यार्थ्यांचे शारीरिक स्वास्थ्य चांगले राहण्यासाठी राबविले जाणारे कार्यक्रमाची माहिती जाणून घेणे.
- २) स्वास्थ्य त्रिकोणाची आहार, योगा, निद्रा विद्यार्थ्यांच्या शारीरिक स्वास्थ्यावर झालेला परिणाम अभ्यासणे.

वाडःमयावलोकन :-

प्रस्तुत अध्ययनातील साहित्याचे पुर्नवावलोकन या प्रकरणात संशोधनासाठी निवडलेल्या विषयाच्या अनुषंगाने निगडीत बाबींवरील प्रकाशित, अप्रकाशित, संशोधनातील परिणाम, पुस्तकातील निगडीत माहिती इत्यादींचा समावेश करण्यात आला.

प्रा. नेहा हिरुरकर (२०१२) यांनी अमरावती जिल्ह्यामध्ये नियमित योगासन करणाऱ्या विद्यार्थ्यांचे मानसिक स्वास्थ्यांचे अध्ययन केले असतांना योगा करणारे एकूण ३० विद्यार्थी व योगा न करणारे ३० विद्यार्थ्यांनी अभ्यासाकरिता घेतलेले असता, योगा करणाऱ्या विद्यार्थ्यांचे सकारात्मक मानसिक स्वास्थ्य, एकाग्रता हे योगा न करणाऱ्या विद्यार्थ्यांच्या तुलनेत अतिशय उत्तम आढळली. याची निष्कर्षाची सार्थकता पातळी अभ्यासली असता ती १ ते ०.०१ पातळीवर सार्थ आढळली. योगासने करणाऱ्या विद्यार्थ्यांमध्ये एकाग्रता वाढलेली व पचनसंस्थेचे विकार, थकवा या समस्या कमी झाल्याचे निदर्शनास आले.

जॉन्सन (२००२) यांनी अध्ययनासाठी निवडलेल्या मुलांचे दोन गट केले. दोन्ही गटांना आरोग्य शिक्षण कार्यक्रमांतर्गत काही घटकच राबविले पाहिल्या गटाला फक्त आहारच दिला तर दुसऱ्या गटाला फक्त व्यायामच दिला परिणाम अंती असे निर्देशनास आले की, कमी असलेले वजन अपेक्षेपेक्षा जास्त वाढल्याचे दिसून आले.

शहा (२००३) यांनी कोलकता येथे शासकीय व निम शासकीय आश्रमशाळेतील १० ते १५ वर्ष वयोगटातील मुलांसाठी एकवर्षीय आरोग्य शिक्षण कार्यक्रम राबविला यामध्ये आरोग्य व व्यायाम संबंधीत असणारे घटक, प्राणायाम, आहार, पर्यावरण, व्यसनला आळा घालणे, इ. बाबी आरोग्यासाठी व रोगाला प्रतिबंध घालण्यासाठी आवश्यक आहे. यावर भर देण्यात आला. या कार्यक्रमाची परिणामकारकता अभ्यासली असता याचा सकारात्मक परिणाम मुलांवर होऊन मुलांचे आरोग्य सुधारलेले निर्देशनास आले. या कार्यक्रमांमुळे मुलांमध्ये रोगप्रतिकार शक्ती वाढल्याचे आढळले.

संशोधन पध्दती :-

प्रस्तुत संशोधन हे अमरावती जिल्ह्यातील मेळघाट या क्षेत्रापुरते मर्यादित असून या क्षेत्रामध्ये चिखलदरा व धारणी या दोन तालुक्यांचा समावेश आहे.

नमुना निवड :-

अध्ययनासाठी १५ शाळांची निवड करण्यात आली. प्रत्येक शाळेतून विद्यार्थ्यांची निवड करतांना (PPS) या निवड पध्दतीचा अवलंब करून एकूण ६२८९ विद्यार्थ्यांपैकी ५०० विद्यार्थ्यांची निवड अध्ययनासाठी करण्यात आली आहे. आरोग्य शिक्षण कार्यक्रमांतर्गत आहार, योगा व निद्रा या ३ विषयी आदिवासी आश्रमशाळेतील विद्यार्थ्यांना शिक्षण देण्यात आले असून ह्या प्रशिक्षणाचा कालावधी ३ महिने होता.

परिणाम चर्चा :-

आदिवासी विद्यार्थ्यांमध्ये शारीरिक स्वास्थ्य चांगले राखण्याकरिता कवायती व योगाभ्यास या विषयी आवड निर्माण झाली असून या कार्यक्रमानंतर विद्यार्थ्यांनी दिलेल्या संकलीत अभिप्रायाची मांडणी खालील सारणीत करण्यात आलेली आहे.

सारणी
आरोग्य शिक्षण व योगाभ्यास यामधील बदल

अ. क्र.	प्रश्न	पुर्णतः सहमत	सहमत	सांगता येत नाही	असहमत	पुर्णतः असहमत
१.	आठवड्याला तुम्हाला पी.टी. चे तास असतात.	२१२ (४२.४)	२८८ (५७.३)	००	००	००
२.	तुमच्या कडून नियमित कवायती करून घेतल्या जातात.	१७९ (३५.८)	२९१ (५८.२)	३० (६)	००	००
३.	तुम्ही रोज फिरायला जाता.	११५ (२३)	१५४ (३०.८)	२०० (४०)	२० (४)	११ (२.२)
४.	पी.टी. च्या तासात योगा घेतल्या जाते.	२८९ (५७.८)	१८८ (३७.३)	३ (०.६)	११ (२.२)	९ (१.८)
५.	तुम्ही व्यायाम करता.	१९६ (३८.४)	२१२ (४२.४)	२५ (५)	४७ (९.४)	२० (४)
६.	तुम्ही व्यायाम उपाशी पोटी करता.	१८५ (३७)	२३५ (४७)	३४ (६.८)	४६ (९.२)	००
७.	व्यायामाला बसण्यासाठी चटई चा / सतरंजीचा वापर करता.	१९२ (३८.४)	१९७ (३९.४)	३६ (७.२)	६० (१२)	००
८.	तुम्हास थकवा आला असता व्यायाम करता.	१८९ (३७.८)	१९७ (३९.४)	७४ (१४.८)	४० (८)	२० (४)
९.	झोप पुर्ण झाली नाही तरी व्यायामाला येता.	२२६ (४२.२)	१५१ (३०.२)	९८ (१९.६)	१३ (२.६)	१२ (२.४)
१०.	व्यायाम केल्यानंतर तुम्हाला दिवसभर उत्साही वाटते.	३३४ (६६.८)	१२८ (२५.६)	३८ (७.३)	००	००

वरील सारणीवरून असे निर्देशनास आले की, आरोग्य शिक्षण कार्यक्रमांतर्गत योगा या स्वास्थ्य त्रिकोणातील कोनाला सहमती देणाऱ्या विद्यार्थ्यांमध्ये वृद्धी झाल्याचे दिसून येते. हे शकडा प्रमाण दुर्लक्षित करता येणार नाही हीच संशोधकने राबविलेल्या आरोग्य शिक्षण कार्यक्रमाची फलश्रुती आहे असे म्हटल्यास अतिशयोक्ती होणार नाही.

सारणी
अध्ययनातील विद्यार्थ्यांना आरोग्य शिक्षण कार्यक्रमापुर्वी व नंतरचे
आरोग्य शिक्षण व योगा

अ. क्र.	तपशिल	आरोग्य शिक्षण कार्यक्रमापुर्वी		आरोग्य शिक्षण कार्यक्रमानंतर		Z test मूल्य
		सरासरी	प्रमाणीचल	सरासरी	प्रमाणीचल	
१.	आठवड्याला तुम्हाला पी.टी. चे तास असतात.	४.०३	०.८३	४.८८	०.६४	२५.८५**
२.	तुमच्या कडून नियमित कवायती करून घेतल्या जातात.	३.८९	०.७८	४.५९	०.६३	२२.२०**
३.	तुम्ही रोज फिरायला जाता.	२.४२	१.१७	४.१४	०.८९	३७.३३**
४.	पी.टी. तासात योगा घेतल्या जाते.	३.५०	१.०३	४.३८	०.८१	२१.३८**
५.	तुम्ही व्यायाम करता.	३.१८	१.१२	४.२५	०.९१	२३.५७**
६.	तुम्ही व्यायाम उपाशी पोटी करता.	३.१२	१.०९	४.२९	०.८८	२६.५६**
७.	व्यायामाला बसण्यासाठी चटईचा / सतरंजीचा वापर करता.	३.०४	१.१०	४.२१	०.६२	२८.७८**
८.	तुम्हास थकवा आला असता व्यायाम	२.५४	०.९१	४.२६	०.८१	४४.९८**

	करता.					
९.	झोप पुर्ण झाली नाही तर व्यायामाला येता.	२.५०	०.९७	४.४२	०.६९	९९.६०**
१०.	व्यायाम केल्यानंतर तुम्हाला दिवसभर उत्साही वाटते.	३.१७	१.२४	४.६३	०.८४	९९.९५**

आरोग्य शिक्षण कार्यक्रमांतर्गत योगा या विषयी आदिवासी आश्रमशाळेतील विद्यार्थ्यांना शिक्षण देण्यात आले असून ह्या प्रशिक्षणाचा कालावधी ३ महिने होता. विद्यार्थ्यांचे आरोग्य शिक्षण कार्यक्रमापूर्वीचे अभिप्राय याचे गुणांकन करण्यात आले असून सरासरी प्रमाण विचलन सारणीत दिलेले आहे. सारणीतील शेवटच्या कोष्टकात Z test मूल्य दिलेले असून हे मूल्य १ % शाश्वत पातळीवर सांख्यिकीय दृष्ट्या महत्वपूर्ण आहे.

निष्कर्ष :-

प्रस्तुत अध्ययनामध्ये आरोग्य शिक्षण कार्यक्रमांतर्गत योगाचा समावेशमुळे विद्यार्थ्यांमध्ये क्रियाशिलता वाढून त्यांचा पोषणस्तर वाढण्यास मदत झाली. तद्वतच सकारात्मक व एकाग्रता वृद्धीगत झाल्याचे निर्देशनास आले.

संदर्भ ग्रंथ सूची :-

- १) प्रा. नेहा हिरुळकर (२०१२), नियमित योगासन करणाऱ्या विद्यार्थ्यांचे मानसिक स्वास्थ्याचे अध्ययन.
- २) उज्वला केळकर (२०१२), स्वास्थ्य त्रिकोण, वॉ व पब्लिकेशन प्रा.लि.

किशोरावस्थेतील पोषक आहार

प्रा. संगीता गंगाराम मेश्राम
आर.डि.आय.के. महाविद्यालय, बडनेरा

प्रस्तावना -

मानवाचा विकास हा टप्या टप्याने होत असतो साधारणतः गर्भावस्था, शैशवावस्था, बाल्यावस्था, किशोरावस्था, प्रौढावस्था आणि वृद्धावस्था या सर्व अवस्था पार करण्याकरीता मानवाला आहाराचा नितांत आवश्यकता आहे कारण संपूर्ण शरीराची जडण घडण आणि वर्तणूक आहारावरच अवलंबून आहे. प्रत्येक अवस्थेत आहार किती घ्यावा ? कसा घ्यावा ? याची सविस्तर माहिती प्रत्येकाला असायला पाहिजे.

किशोरावस्था ही मानवाच्या जीवनातील अत्यंत महत्वाची अवस्था आहे. कारण संपूर्ण आयुष्याचा पाया या अवस्थेत घातला जातो ही अवस्था म्हणजे धकाधकीची व वादळाची आहे. उत्साह भरभरून वाहतो, इच्छाशक्ती प्रबळ असते, काहीतरी करण्याची उमंग असते. ही अवस्था खळखळत वाहणा-या झ-याप्रमाणे असते. अशा या दमदार अवस्थेचा आहार देखील तेवढ्याच दमदार उर्जादायी व संपूर्ण अन्नघटक युक्त असावा जेणे करून या सळसळणा-या अवस्थेचे उत्तम पोषण होईल. ही अवस्था साधारणपणे १२ ते १८ या वयोगटात असते उंची व वजनात अचानक वाढ होते शारीरिक व मानसिक बदलही या काळात होतात. या वयोगटातील मुले आपल्या आहाराकडे दुर्लक्ष करतात. आवश्यक कॅलरीयुक्त आहार घेत नाही. संपूर्ण पोषक घटकांचा आहारात समावेश नसल्याने अन्न घटकांच्या अभावांचे दुष्परीणाम त्यांच्या शारीरिक व मानसिक विकासावर म्हणजेच सर्वांगीण विकासावर दिसून येतात.

उद्दिष्टे -

१. किशोरावस्थेतील आहारावरच शरीराची जडण - घडण असणे.
२. सर्व पोषक घटकांचा आहारात समावेश करणे.
३. किशोरावस्थेतील मुलांना संतुलित आहाराचे महत्त्व पटवून देणे.
४. पोषक आहार आणि आरोग्य यांचा संबंध अभ्यासणे.

किशोरावस्थेत शारीरिक वाढ अती जलद गतीने होत असते या काळात शारीरिक व मानसिक बदल होतात. हि अवस्था सुरु झाल्यावर दोन तीन वर्षात प्रौढांप्रमाणे शारीरिक स्वरूप प्राप्त होते अस्थी मजबुत होऊन त्यांची लांबी वाढते खांदे रुंद होतात त्वचेखाली चरबीचे थर जमायला लागतात, हार्मोन्स मध्ये होणा-या बदलामुळे मुलींमध्ये शारीरिक बदल जाणवतात व मासिक पाळी सुरु होते. मुलांमध्ये पुरुषी लक्षणे दिसू लागतात या अवस्थेतील मुला-मुलींना आपण मोठे इ पालो असे वाटते त्यामुळे त्यांना आहार घेण्याविषयी स्वातंत्र्य हवे असते. मुली वजन वाढू नये, लठ्ठपणा येवू नये म्हणून चुकीचा आहार घेतात त्यामुळे आरोग्य विषयक काही समस्या निर्माण होण्याची शक्यता वाढते. तिव्र गतीने निर्माण होणा-या हार्मोन्समुळे काही समस्या उद्भवतात. पोषक संतुलीत आहारामुळे त्वचा, केस, डोळे निरोगी आणि चमकदार राहू शकतात.

या वयात भुक्त तिव्र असते पोषणासंबंधी गरज वाढलेली असते विशिष्ट प्रकारचे चमचमी पदार्थ खाण्याकडे कल वाढलेला असतो. अन्न घेण्याच्या सवयी निश्चित झालेल्या असतात, चुकीच्या आहार विषयक सवयी असल्यास त्यात बदल करणे गरजेचे आहे. मुलींचा गर्भाशयाचा तसेच इतर अवयवांचा विकास या काळात होत असतो. म्हणून योग्य प्रकारे विकास होण्यासाठी पोषक आहार घेणे महत्वाचे असते. या अवस्थेत आहाराकडे प्रामुख्याने लक्ष द्यावयास पाहिजे. जेणे करून शरीराची जडण-घडण योग्य होईल.

किशोरावस्थेतील मुलीमुलींचा आहार जर योग्य नसेल तर पोषण उत्तम होणार नाही. अन्न घटकाविषयी पुरेपुर माहिती नसली, पोषक तत्वांचे कार्य, अभावाचे परिणाम तसेच अंधश्रद्धा, रुढी, परंपरा, सामाजिक चालीरिती यांचा देखील परिणाम आहारावर होतो. पोषणाविषयी जागरूक नसणे, अन्न शिजविण्याच्या चुकीच्या पध्दती, गैरसमजूती तसेच दुध व फळे आवडत नाही, पालेभाज्या खात नाही, फास्टफुड खाण्याकडे अधिक कल असतो साधारणतः मुली मांसाहार घेत नाही यामुळे संपूर्ण प्रथिनांचा पुरवठा होत नाही, खनिज द्रव्य व जीवनसत्वाची कमतरता जाणवते. मुली लोहाच्या कमतरतेमुळे रक्तक्षय सारख्या आजाराला बळी पडतात. वय, लिंग, शारीरिक कार्य यानुसार आहार दिल्या जात नाही. योग्य व समतोल आहाराच्या अभावी होणारे दुष्परीणाम आपल्याला टाळता येतात. काय खावं ? किती खावं ? कसं खावं ? या सर्वांचे ज्ञान असणे अतिशय आवश्यक आहे.

विविध अन्न घटकांची एकत्र गुंफन करून पाहिजे त्या प्रमाणात संघटन करून आरोग्यवर्धकता खाद्य पदार्थातून प्राप्त करणे, धान्याला मोड आणून त्याचा दैनंदिन आहारात उपयोग करणे, खमिरीकरण, भट्टीत भाजलेले पदार्थ व

विड्याच्या पानाला चुना लावून खाने यामुळे कॅल्शियम व लोह मिळण्यास मदत होते. रागी या धान्याचे माल्टींग करून उपयोग केल्या जातो. धान्य उकळविणे, एकत्रिकरण तसेच खाद्य पुरवणी करून या अवस्थेत मुला-मुलींना द्यावयास पाहिजे.

किशोरावस्थेतील आहार हा विशेष महत्वाचा आहे. कारण संपूर्ण आयुष्याचा पाया घातला जातो. शरीराची बांधणी १३ ते १७ या वयोगटात शिघ्र गतीने होते. या अवस्थेत मुलींना लोहाची आवश्यकता अधिक असते. अशावेळी लोह - प्रथिने युक्त खाद्य पदार्थांचा आहारात समावेश करावा.

उत्तम लोहप्राप्तीचे स्रोत

खाद्यपदार्थ	लोह
१०० ग्रॅम पुदिना	१५.६ मिली. ग्रॅ
१०० ग्रॅम अळिव पाने	१० मिली. ग्रॅ
१०० ग्रॅम शेंपू	१७.४ मिली. ग्रॅ

वरील पालेभाज्यांचा आहारात समावेश केल्यास आवश्यक लोहाची पूर्तता होईल. या अवस्थेतील मुला-मुलींना गहू आणि स्निग्ध प्रथिनेयुक्त शेंगदाण्याची ढेप मिश्रीत करून दिल्यास प्रथिने आणि स्निग्धे ही भोज्य मूल्ये मिळू शकतात. किशोरावस्थेतील मुले-मुली विशेष उत्साही क्रियाशिल असतात. त्याकरीता त्यांचा आहार अधिक सकस व समतोल असावा.

किशोरवयीन मुलांची आहार विषयक गरज -

शारीरिक वाढीच्या प्रमाणात या वयात आहाराचे प्रमाण वाढविणे अनिवार्य असते. आहार केवळ दोन वेळा घेवून पूर्ण पोषण होऊ शकत नाही. परिणामी मुलांच्या वाढ व विकासामध्ये बाधा येते त्यासाठी या वयात लाढणा-या आहाराची, पोषक घटकांची विशेषतः कर्बोदके, प्रथिने यांची दिवसभरात योग्य प्रकारे विभागणी करावी. स्वतंत्र अशी विचार सरणी याच वयात प्रस्थापित होत असल्यामुळे पालकांचे न ऐकण्याकडे मुलांचा कल आढळून येत असला तरीही आहार विषयक योग्य मार्गदर्शन त्यांना करायला हवे.

या वयात आहाराबाबत मुले - मुली यांचे ठराविक दृष्टिकोन आढळून येतात. मुलींना सडपातळ असावे असे वाटते. तर उलट मुलांचा कल शरीर सौष्ठव कमावण्याकडे असतो. त्यामुळे ब-याचवेळा खुप कमी खाने किंवा खुप जास्त खाने अशी मानसिकता दिसून येते. अशावेळी त्यांना पोषक घटकांची गरज आणि महत्त्व पटवून दिल्यास ते आहारात बदल करण्यास तयार होतील.

कॅलरी -

झपाट्याने होणारी वाढ आणि वाढलेली चयापचयाची गती यामुळे या वयातील मुलींची कॅलरीजची आवश्यकता पुर्वीपेक्षा मोठ्या प्रमाणात वाढलेली असते.

दैनिक आवश्यकता

मुली	२०६० ते २४०० कि. कॅलरी
मुले	२९४० ते ३००० कि. कॅलरी

प्रथिने -

या वयात शारीरिक विकासाची तिब्र गती, स्नायुंची निर्मिती व झिज भरून काढण्यासाठी तब्दतच हार्मोन्सच्या निर्मितीसाठी प्रथिनांची गरज वाढलेली असते. एक किलोग्रॅम वजनाकरीता दिड ते दोन ग्रॅम प्रथिनांची आवश्यकता असते.

प्रथिनांची दैनिक आवश्यकता

मुले १३ ते १५ वर्ष	५४.३ ग्रॅम
१६ ते १८ वर्षे	६१.५ ग्रॅम
मुली १३ ते १५ वर्ष	५१.९ ग्रॅम
१६ ते १८ वर्ष	५५.५ ग्रॅम

खनिज द्रव्ये -

हाडांचीवाढ व विकास आणि वाढते रक्ताचे प्रमाण यांच्या पुर्ती करीता या वयात मुख्यत्वे कॅल्शियम व लोहाची तसेच आयोडिनची गरज वाढलेली असते.

अ) कॅल्शियम -

या वयात कॅल्शियमची धारण शक्ती जास्त असते. वजन उंचीत वाढ होत असल्याने हाडांच्या वाढीसाठी व बळकटीकरणासाठी मुलांना रोज ५०० ते ६०० मिली ग्रॅम कॅल्शियमची गरज असते. त्याकरीता आहारात रोज हिरव्या भालेभाज्या, दुध, दुधाचे पदार्थ, तिळ, सुरलेले मासे, रागी इत्यादीचा समावेश करावा.

ब) लोह -

रक्तात हिमोग्लोबिन तयार होण्यासाठी आणि शरीरातील रक्ताच्या प्रमाणात लक्षणिय वाढ होऊन स्नायुंच्या वाढीसाठी आवश्यक असणा-या मायोग्लोबिनच्या निर्मितीसाठी लोहाची या काळात अधिक आवश्यकता असते.

लोहाची दैनिक आवश्यकता

मुले १३ ते १८ वर्ष	२५ मिली ग्रॅम
मुली १३ ते १८ वर्ष	३५ मिली ग्रॅम

या अवस्थेत मुलींची मासिकपाळी सुरु झालेली असते. रक्तस्त्रावातून ०.५ मिली ग्रॅम लोहाचा नाश होतो तो भरून काढण्याकरीता तसेच हिमोग्लोबिनच्या निर्मिती करीता लोह आणि प्रथिनांची गरज असते.

जीवनसत्त्वे -

वाढीच्या या वयात नवचैतन्य आणि उत्साह टिकून राहण्यासाठी तव्दतच क्रियाशिलतेसाठी मुला-मुलींना सर्वच जलद्राव्य व स्निग्ध द्राव्य जीवन सत्त्वांची जास्त गरज असते.

अ) जीवनसत्व 'अ' -

सुदृढ आरोग्यासाठी तसेच दृष्टि सातत्या टिकविण्यासाठी किशोरांना या वयात जीवनसत्व 'अ' ची अधिक आवश्यकता असते.

दैनिक आवश्यकता

मुले १३ ते १८ वर्ष	रेटिनॉल ७५० मायक्रो ग्रॅम	बिटाकेरोटीन ३००० मायक्रो ग्रॅम
मुली १३ ते १८ वर्ष	रेटिनॉल ७५० मायक्रो ग्रॅम	बिटाकेरोटीन ३००० मायक्रो ग्रॅम

या करीता आहारात दुध, अंडी, हिरव्या पालेभाज्या, पनिर, शेवग्याच्या शेंगा, गाजर, लाल भोपळा, शिमला मिर्ची, लोणी, माश्यांचे तेल यांचा समावेश करावा.

ब) जीवनसत्व 'क' -

शरीरात रोगप्रतिकारक शक्ती वाढविण्यासाठी, जखमा भरून काढण्याकरीता जीवनसत्व 'क' महत्वपूर्ण भूमिका बजावते. लोहाच्या शोषनास आवश्यक आहे सर्व आंबट व रसाळ फळे यामध्ये आवळे, लिंबू, संत्रे या फळापासून जीवनसत्व 'क' अधिक प्रमाणात मिळते. किशोरावस्थेत ४० मिली ग्रॅम जीवनसत्व 'क' आहारातून मिळणे आवश्यक आहे.

क) जीवनसत्व 'ब' संयुक्त -

जीवनसत्व 'ब' च्या अभावी बेरीबेरी हा आजार होऊ नये म्हणून आहारात तृणधान्य, खनिज यांचा उपयोग करावा त्याच प्रमाणे 'ब' मिळविण्याकरीता संपूर्ण तृणधान्ये तीळ, गाजराची पाने यांचा आहारात समावेश करावा.

दैनिक आवश्यकता -

मुले १३ ते १८ वर्ष	१.५ ते १.९ मिली ग्रॅम
मुली १३ ते १८ वर्ष	१.२ मिली ग्रॅम

या वयातील मुला-मुलींना उष्मांकाच्या प्रमाणात 'ब' गटातील जीवनसत्त्वे मिळणे गरजेचे आहे.

फोलीक आम्ल -

किशोरावस्थेत रक्ताम्लता निर्माण होऊ नये म्हणून फोलीक आम्लाचा आहारात समावेश असावा. या करीता आहारात अंडे, यकृत, तीळ, भेंडी, शेंगदाने, बाजरी हे पदार्थ असावे. या अवस्थेत रोज १०० मिली ग्रॅम फोलीस आम्ल मिळायला हवी.

किशोरावयीन मुला-मुलींना आहार देतांना घ्यावयाची काळजी -

१. किशोरवयीन आहाराचा भविष्य कालीन पोषणावर परीणाम होत असल्यामुळे त्यांचा आहार विशेष महत्वाचा असतो.
२. वाढीस पुरक असे उष्मांक व प्रथिनेयुक्त पदार्थ आहारात असावे.
३. विशेषतः किशोरवयीन मुलांच्या आहारात कॅल्शियमयुक्त पदार्थांचा समावेश करावा.
४. लोहाच्या आभावी होणारा रक्तक्षय टाळण्यासाठी मुलींच्या आहारात हिरव्या पालेभाज्या, गुळ फुटाणे, मोड आलेली कडधान्य, खजुर, मनुका यांचा समावेश असावा.
५. लठ्ठपणा व अपुरे पोषण टाळण्यासाठी मुलांना संतुलित पौष्टिक आहार द्यावा.
६. आहारात जीवनसत्वे व क्षाराच्या प्राप्तीसाठी फळे व भाज्यांचा भरपुर उपयोग करावा.
७. डायटिंगचे दुष्परिणाम मुलांना लक्षात आणून द्यावे.
८. बाहेरचे दुषित पदार्थ खाण्यापेक्षा शक्यतोवर मुलांना घरीच विविध रुचिपूर्ण पदार्थ करून द्यावे.
९. आहार विषयक पदार्थांची खरेदी करण्याची आवडीनुसार मुलांना मुभा द्यावी.
१०. खान्याविषयीचे समज - गैरसमज दुर करण्याचा प्रयत्न करावा.
११. खान्याच्यावेळा नियमित पाळणे व खान्याच्या योग्य सवयीबाबत मुलांना मार्गदर्शन करावे.

निष्कर्ष -

किशोरावस्थेतील मुलांना त्यांचा सर्वांगिन विकास होण्याच्या दृष्टिने समतोल आहाराचे महत्त्व त्यांना पटवून दिले आणि आरोग्य विषयक सवयी सांगितले.

संदर्भ -

- १) मानवी पोषण व आहारशास्त्र - इंदिरा खडसे
- २) पोषण आणि आहारशास्त्र - त्रिवेणी फरकाडे, सुलभा गोंगे
- ३) मानवी पोषण आणि आहारशास्त्र - डॉ. सांगिता जवंजाळ, डॉ. किरण बेलुरकर
- ४) नेटवरून घेतलेली माहिती

आहार व आरोग्याच्या दृष्टीकोणातून तेलाचा उपयोग

प्रा. डॉ. सुजाता सबाणे
(गृहअर्थशास्त्र विभाग प्रमुख)

श्री शिवाजी कला व वाणिज्य महाविद्यालय
अमरावती

प्रस्तावना :-

रोजच्या आहारात कोणते तेल वापरावे ? रिफाईंड कि घाण्याचे तेल घ्यावे असा आजकाल सगळ्यांच्याच मनात संभ्रम असतो. मोठमोठ्या कंपन्या आकर्षक पॅकिंग करून बेसुमार जाहिराती करतात. त्यामुळे दिवसेंदिवस हा संभ्रम आणखीनच वाढत जात आहे. काही सुशिक्षित कुटुंबांमध्ये तर तेल म्हणजे जणू विषच अशी धारणा झालेली आढळते. तेलाने कोलेस्टेरॉल वाढते आणि हृदयाला रक्तपुरवठा करणाऱ्या रक्त वाहिन्यांमध्ये अडथळा येऊन हार्ट अटॅक येणारच अशी भीती मनात कुठे तरी घर करून बसली आहे. परंतु अति सर्वत्र वर्जयते हे वाक्य कायम ध्यानात ठेवावे.

स्निग्ध पदार्थ हृदयाला घातक आहेत ही भीती पश्चिमी देशांकडून आपल्याकडे आली. ज्यांच्या आहारात फक्त आणि फक्त मांसाहार असतो त्यांना ही भीती असणे साहजिक आहे. मांसाहारातून (रेड मीट) अप्रत्यक्षपणे अवाजवी प्रमाणात घातक स्निग्धांश शरीरात जातो आणि त्यामुळे अशांना तेल तूप खाऊ नका हे आवर्जून सांगणे जरूरीचे आहे. शाकाहारी लोकांना याची भीती कमी प्रमाणात असते. तरीही व्यायामाच्या माध्यमातून कॅलरीज बर्न करणे अधिक जरूरीचे असते.

उद्दिष्ट :-

आहार व आरोग्याच्या दृष्टिकोनातून तेलाचा उपयोग अभ्यासणे.

तेलाचा आरोग्याच्या दृष्टिकोनातून आहारातील उपयोग :-

स्वयंपाकात कोणते तेल वापरले जात आहे. यापेक्षा अधिक महत्त्वाची बाब म्हणजे तेलाचा वापर किती प्रमाणात आहे. कितीही आरोग्यदायी तेल असले तरी त्याचा अतिरेक हा त्रासदायक ठरतो. तेलाच्या बाबतीत जितके कमी- तितके चांगले हे धोरण अवलंबावे. सर्वसाधारणपणे एका प्रौढ व्यक्तीमागे महिन्याला एक लिटर इतका तेलाचा वापर स्वयंपाकात असावा. समजा घरात दोन प्रौढ व्यक्ती व दोन लहान मुले आहेत, तर इथे महिन्याला तीन लिटर तेलाची मर्यादा पाळावी स्थूल्य, हृदयविकार, मधुमेह, उच्च रक्तदाब किंवा तत्सम लार्डफ स्टार्चल आजार असल्यास हे प्रमाण प्रत्येक व्यक्तीमागे महिन्याला ६०० मिली (दिवसाला २० मिली = ४ चमचे) इतकेच हवे. आहारात साजूक तुप, लोणी, मांसाहार असे प्राणिजन्य मेद असल्यास देखील वनस्पती तेलाचा वापर कमी ठेवावा.

तेलांचे आहारशास्त्रीय वर्गीकरण :-

वनस्पतीजन्य तेलांचे शास्त्रीय वर्गीकरण हे दोन प्रकारात केले जाते.

१) मोनो अनसॅच्युरेटेड फॅटी ॲसिड्स (मुफा)

२) पॉली सॅच्युरेटेड फॅटी ॲसिड्स (पुफा)

१) मुफा तेल :-

ऑलिव्ह, कॅनोला, राईसब्रॅन मोहरी, शेंगदाणा व तीळ ही सर्व तेल मुफा (MUFA) या प्रकारातील आहेत. या तेलांमधील मेद हे शरीरातील एकुण कोलेस्टेरॉल व वाईट कोलेस्टेरॉल या दोन्हीचे प्रमाण घटवते. चांगल्या कोलेस्टेरॉलचे प्रमाण मात्र हे तेल तितकेच राखते किंवा वाढवते. या महत्त्वाच्या गुणामुळे मुफा तेल ही पुफा तेलापेक्षा अधिक आरोग्यदायी मानले जाते.

२) पुफा तेल :-

सुर्यफुल, सोयाबीन, करडई इत्यादी तेल पुफा (PUFA) या प्रकारात मोडतात. या प्रकारातील तेल वाईट कोलेस्टेरॉल कमी करतेच पण त्याच बरोबर चांगले कोलेस्टेरॉलदेखील खाली आणते. त्यामुळे या तेलाचा उपयोग एकुण उपयोग फारसा चांगला नाही. मुफा व पुफा तेल मिश्र स्वरूपात वापरणे किंवा आलटून पालटून वापरणे आरोग्याच्या दृष्टीने अधिक हितकारक आहे सकाळी व संध्याकाळच्या स्वयंपाकाला वेगवेगळे तेल वापरणे हा देखील एक चांगला पर्याय आहे.

ओमेगा मेदाम्ले :-

ओमेगा-३ ओमेगा-६ या मेदाम्लांनुसार देखील तेलीय पदार्थांचे वर्गीकरण केले जाते. ही दोन्ही मेदाम्ले शरीरात उपयुक्त आहेत. परंतु त्यांचे आहारातील प्रमाण हे ओमेगा ३, ओमेगा ६ एकास सहा या गुणोत्तरात असावे लागते. सामान्यतः आपल्या आहारात ओमेगा-३ फॅटी ॲसिडचे प्रमाण खूपच कमी असते. त्यामुळे मुळे हा रेशो बिघडतो. अक्रोड, जवस, मोहरी, पालेभाजी, मेंथी ओमेगा-३ फॅटी ॲसिड असतात. सोयाबीन, करडई, सुर्यफुल, तीळ, शेंदना यापासून केलेल्या तेलामध्ये ओमेगा-६ फॅटी ॲसिड्सचे प्रमाण अधिक असते. ओमेगा-६ मेदाम्लाचा अतिरेक झाल्यास रक्त गोठण्याच्या क्रियेला चालना मिळते. यामुळे हृदयविकाराचा इ टका येण्याचा धोका वाढतो. म्हणूनच आहारात ओमेगा-३ व ओमेगा -६ यांचा समतोल साधणे गरजेचे असते. त्याचबरोबर माफक प्रमाणात साजूक तुपाचा वापर, मोहरी, जवस याचा समावेश तसेच मांसाहारींनी तेलीय मासे (बांगडा, सुरमई, रोहू) व शाकाहारींनी पालेभाज्यांचे नियमित सेवन ठेवल्यास आहारातील ओमेगा-३ चे प्रमाण निश्चितपणे वाढेल.

भारतीय आहारात खालील तेलांचा वापर मुख्यत्वाने होतो. त्यातील घटकांमधील रसायनांचा तक्ता

अ.क्र.	तेलाचे नाव	सॅच्युरेटेड स्निग्धांश	MUFA	PUFA
१	तीळ तेल (Sesame oil)	१४%	४३%	४३%
२	भुईमुग तेल (Peanut oil)	१८%	४९%	३२%
३	पामतेल (Palm oil)	५२%	३८%	१०%
४	सोयाबीन तेल (Soyabean oil)	१५%	२४%	६१%
५	सूर्यफुल तेल (Sunflower oil)	११%	२०%	६९%
६	सरकी तेल (Cotton oil)	२४%	२६%	५०%
७	खोबरेल तेल (Coconut oil)	९२%	०६%	०२%
८	करडई तेल (Safflower oil)	१०%	१३%	७७%
९	ऑलिव्ह तेल (Olive oil)	१४%	७३%	११%
१०	राईचे तेल (Mustard oil)	१३%	६०%	२१%
११	तांदुळाच्या कोंड्याचे तेल (Rice Bran oil)	२०%	७४%	३३%
१२	मक्याचे तेल (Corn oil)	१३%	२५%	६२%
१३	जवसाचे तेल (Flax seed oil)	११%	२१%	६८%

तीळ तेल :-

सेंद्रिय, रिफाईंड न केलेले तिळाचे तेल आपल्या अन्नाला मोहक सुगंध देते. तीळ तेलात मोनो आणि पॉलीसॅच्युरेटेड फॅटी अॅसिड्स असतात या तेलामध्ये कोलेस्टेरॉलची पातळी कमी करण्याचे गुण आहे. तीळ तेल चिंता करणाऱ्यांसाठी तसेच आपल्या नसा (नर्व्ह) आणि हाडांच्या रोगांवर उपयुक्त आहे.

शेंगदाणा तेल :-

यामध्ये जवळपास सगळ्या प्रकारच्या फॅट्सचं उत्तम मिश्रण आहे. शेंगदाण्याच्या तेलात नैसर्गिक अँटीऑक्सिडन्ट्स असतात जे फ्री रेडिकल्स तयार होण्यापासून रोखतात. आणि विविध प्रकारच्या कर्करोगांपासून रक्षण करतात ते शरीरातले वाढलेले कोलेस्टेरॉल आणि वाईट कोलेस्टेरॉलचीही पातळी कमी करतात.

पाम तेल :-

घात ट्रान्स फॅट व सॅच्युरेटेड स्निग्धांशाचे प्रमाण मोठे आहे व हृदयाच्या रक्ताभिसरणासाठी योग्य नाही असे जागतिक आरोग्य संस्थेने प्रसिद्ध केले आहे.

सोयाबीन तेल :-

यात प्रथिनांचे प्रमाण उत्तम असते. सोयाबीनमधील अँटिऑक्सिडंट घटक विशिष्ट कॅन्सर पेशींना आळा घालून त्यांची वाढ रोखतात, प्रथिनांचा उत्तम स्रोत असल्याने शुद्ध शाकाहारी लोकांनी ह्याचा वापर करावा.

सनफ्लॉवर तेल :-

या तेलामध्ये जीवनसत्व ई जास्त आणि सॅच्युरेटेड फॅट कमी असते. हे तेल हृदयास हितकारक आहे. हे कोलेस्टेरॉलची पातळी कमी करते. कारण त्यात पॉलि सॅच्युरेटेड फॅट आणि मोनोसॅच्युरेटेड फॅट योग्य प्रमाणात असतात.

ऑलिव्ह तेल :-

ऑलिव्ह तेल आरोग्यकारी मानले जाते. रोजच्या अन्नात ऑलिव्ह तेलाचा उपयोग केल्यास हृदयविकाराचा धोका कमी होतो हे सिद्ध झाले आहे.

राईस ब्रान तेल :-

या तेलात पॉलिअनसॅच्युरेटेड फॅट्स असतात आणि ट्रान्स फॅट नसतात. त्यात जीवनसत्व आणि अँटी ऑक्सिडंटसही असतात. त्यामुळे ते कॉलेस्टेरॉलची पातळी कमी करते आणि रोगप्रतिकारक शक्ती वाढवते.

मक्याचे तेल :-

मक्याच्या अंकुरापासून तेल काढतात. याच्यात कोलेस्टेरॉलचे प्रमाण खूप कमी असल्याने हृदयरोगावरती उपयुक्त आहे.

जवसाचे तेल :-

जवसाच्या बिया अत्यंत आरोग्यदायी आहेत. जवसातून ओमेगा-३ हे मेदाम्ल योग्य प्रमाणात मिळते. हे आम्ल विशेषत्वाने हृदय व त्याच्या धमन्यांचे आरोग्य राखण्याचे काम करते. त्याच प्रमाणे उच्च रक्तदाब, संधी विकार कर्करोग व स्थुलता या पासून संरक्षण मिळते. स्मरणशक्ती वाढते व डोकेदुखी कमी, नैराश्य कमी होते.

सारांश :- खाद्य तेलांबद्दल एवढी माहिती वाचल्यावर मी कोणते ते वापरु हा प्रश्न आपल्याला नक्कीच भेडसावणार आहे.

- १) लेबलवर हायड्रोजनरेड शब्द दिसला तर असे तेल वापरु नये.
- २) तळणीसाठी एकदा वापरलेले तेल परत वापरु नये.
- ३) ट्रान्स फॅट्स असलेले तेल वापरु नये.
- ४) मांसाहाराचे बंधन नसेल तर मधूनच फिश ऑईलचा आहारात वापर करावा.
- ५) सॅच्युरेटेड फॅट्सचे प्रमाण अधिक असलेले तेल टाळावे.
- ६) नॉन-रिफाईंड तेलांना नैसर्गिक गंध असतो व ती तेल अधिक पौष्टिक असतात. परंतु तुलनेने लवकर खवट होतात. तळणासाठी अशा तेलांचा वापर शक्यतो करु नये.
- ७) रिफाईंड तेलाचा वापर तळणासाठी अधिक योग्य असतो.
- ८) ज्या ज्या ठिकाणी गायीचे तुप वापरता येईल त्या त्या ठिकाणी तेलाऐवजी अशा तुपाचा वापर करावा.
- ९) तेलाचा वापर बदलून बदलून करावा एकच एक तेल कधीही खाण्यात वापरु नये.
- १०) आहारात कोणतेही तेल घ्या पण ४५ मिनिट नियमित व्यायाम करणे हा नियम कधीही विसरु नका.

संदर्भ :-

- १) खाद्य तेल- आयुर्वेदाच्या चष्यातुन- <https://www.marathirushti.com.artical>
- २) रोजच्या आहारात कोणते तेल चांगले... परिपूर्ण आरोग्य myb१०९२३७१९६७.blo९spot.com.२०१७/०८
- ३) साप्ताहिक सकाळ ३० मार्च २०१३- स्वयंपाकातील तेल
- ४) Oil-oiled Ghost/ तेला तुपाचे भुत ? www.lokmat.com. सखी
- ५) अन्नशास्त्र आणि पोषण, त्रिवेणी फरकाडे/ सुलभा गोंगे, जुलै २०१८

सुदृढ आरोग्याकरिता मानवी जीवनात आहाराचे

प्रा. डॉ. निना सा. चवरे
विभाग प्रमुख गृहअर्थशास्त्र विभाग
कै. ना. अ. देशमुख महा. चांदूर बाजार

प्रस्तावना:-

मानवाची बातमी कर्ज नसून तो कशा प्रकारे अन्न सेवन करतो यावर त्याचे मत्व अवलंबून असते तसेच व्यक्तीमत्त्व पाया स्वरूपात दिसून येत नाही तर मानसिक भावनिक टेक नैपुण्य स्वभाव इत्यादी सर्व बाबी अन्नावर अवलंबून असतात

जागतिक आरोग्य संघटना स्वास्थ्य :-

म्हणजे केवळ रोगांचा अभाव नसून शारीरिक मानसिक व सामाजिक व आध्यात्मिक आरोग्याची ती पूर्णावस्था आहे. पोषणामध्ये अन्नाचे सेवन पचन शोषण वहन आयोग उपयोग आणि अनावश्यक द्रव्याची निष्कासन या बाबींची समावेश होतो. याकरिता भारतीय महिलांची योग्य आहार पद्धती असावी योगाचे कुटुंबाचे समाजाचे शहराच्या व पर्यायाने देशाचे आरोग्य सुदृढ आरोग्य ही सुखमय जीवनाची गुरुकिल्ली आहे

समतोल व सामान्य आहार :-

मानवाचे शरीर सतत कार्यशील असते त्यामुळे ते झीज पावते. ही झीज भरून काढण्यासाठी अन्नपाणी ऊर्जा आणि हवा यांचा उपयोग आणि शरीरातील रक्तस आणि धातू यांची निर्मिती होऊन शरीर यंत्र सुरळीत चालते प्रत्येक जातीच्या सजीवाचे अन्न वेगवेगळ्या प्रकारचे असले तरी त्याचे कार्य सारखे असते. समतोल आहाराचे आयोजन करताना सर्व पोषक घटक योग्य प्रमाणात मिळवण्यासाठी अनेक प्रकारचे खाद्य पदार्थ उपयोगात आणावे लागतात. भारतातील असाध्य योग्य म्हणजे दारिद्र्य याला प्रमुख कारण वाढती लोकसंख्या व बेकारी आहे भारतामध्ये विविध जातीचे धर्माचे लोक राहतात, त्यांच्या कमी उत्पादनामुळे ते पुरेसा व सकस आहार घेऊ शकत नाही त्यामुळे त्यांची शारीरिक व मानसिक आरोग्य बिघडलेले दिसते त्यासाठी योग्य आहाराची गरज आहे ती गरज कशी पूर्ण करता येईल मानवी जीवनात आहाराचे महत्त्व जाणून घेऊन मानवाला सक्षम आहार प्रदान करून सुदृढ आहाराची गरज आहे. आरोग्य निर्माण करणे हीच खरी आजची गरज आहे.

उद्दिष्ट :-

महत्त्व भारतीयांच्या आहार पद्धतीचे अध्ययन करणे.

- १) आहार व आरोग्य यांच्याबद्दल माहिती जाणून घेणे
- २) आहारा अभावी निर्माण होणाऱ्या समस्या जाणून घेणे.
- ३) महिला व बालकांच्या आहाराकडे विशेष लक्ष पुरविणे.

सात्विक आहार:-

मानवाचा आहार ज्या भागामध्ये राहतो त्या भागातील वातावरण व उपलब्ध अन्नपदार्थ यांचा मेळ घालून असावा आहारासंबंधी स्वामी विवेकानंद महात्मा गांधी, सुभाषचंद्र बोस आचार्य विनोबा भावे, गौतम बुद्ध, राष्ट्रसंत तुकडोजी महाराज यांनी आपल्या तत्त्वज्ञानातून व साहित्यातून मानवी जीवनाचे महत्त्व स्पष्ट केले आहे तेव्हा उपलब्ध अन्न शिजविण्याच्या पद्धती, अन्नला योग्य रुची आणणे, ताजे अन्न सेवन करणे, सात्विक भावना मनात ठेवून अन्न शिजवणे व खाणे, जेवण करताना मन व चित्त शांत ठेवणे, यावर संत-महात्मे थोर पुरुषांनी महत्त्व दिले आहे

सात्विक आहाराने मानवाचे आरोग्य निरोगी, ध्येयशील, बलवान, आरोग्यसंपन्न व सुखी होते सात्विक आहार सेवन करणारे बुद्धिमान, ओजस, स्थित प्रत, उदारमहात्वादी असतात. त्यामुळे भावनिक दृष्ट्या ते सुदृढ असल्याने जीवनात येणाऱ्या प्रत्येक संकटाचा सामना करण्यासाठी ते समक्ष असतात.

विद्यार्थी जीवनात मुलांचा सात्विक आहार:-

मुलगा अभ्यासाला लागला की त्याला सात्विक खायला द्यावे. खारट, आंबट तिखट, मसाला, खूप गरम, कोरडे, रुक्ष, चमचमीत कुत्रिम पदार्थ मिश्रित अन्न देऊ नये, व ताजे अन्न घ्यावे. जेवणामध्ये शाकाहारी पदार्थ, गाईचे दूध, डाळी यांचा समावेश असावा, असं त्यांनी सुद्धा आपल्या मार्गदर्शनातून स्पष्टकेलेले आहे

अन्नपदार्थातीलघटक :-

आपल्या रोजच्या आहारात वरण, भात, भाजी, पोळी, गोड पदार्थ, आंबट पदार्थ, दूध, लोणी, ताक असे विविध पदार्थ असतात. यामध्ये प्रथिने, कर्बोदके, स्निग्धे, जीवनसत्वे, खनिज द्रव्य, व पाणी ही पोषक द्रव्ये मिळतात. शरीराचे पोषण होण्यासाठी व तसेच शरीराची वाढ होण्यासाठी आहारामध्ये कडधान्य, तेलबिया असावी. जोड पदार्थांमुळे वनस्पतिजन्य अपूर्ण प्रथिनांचे पूर्ण प्रथिने रूपांतर होतेनवीन जीवनशैलीत फक्त पोट भरते, जिभेला चव वाटते, परंतु खऱ्या दृष्टीने शरीर उपाशी राहते

आहाराचा अभाव:-

भारतात साधारणपणे चांगला आहार मिळणे दुरापास्त आहे बालकाला त्याच्या जन्मापासून योग्य आहाराची गरज आहे. योग्य आहारा अभावी बाळाची आई कमजोर आहे. तिचे कुपोषण झाल्याने ती ज्या बाळांना जन्म देते ते बाळ कुपोषित होते.

आहारा विषयी जागरूकता :-

समाजात विविध प्रकारच्या श्रद्धा, अंधश्रद्धा, अज्ञान आहे. त्यामुळे आहार खानपान सुखद व चैनीच्या वस्तू कडे कल यामुळे मानवी जीवन असाह्य होत आहे. याचा मानवाच्या आरोग्यावर विपरीत परिणाम होताना दिसतो. प्रत्येकाला त्वरित झटपट तयार होणारा आहार हवा आहे. यामुळे निष्कृष्ट अन्नाचे सेवन होताना दिसते.

प्रत्येक मानवाला अन्न, वस्त्र, निवारा, शिक्षण व आरोग्य या मूलभूत बाबींची परंतु स्पर्धेच्या काळात जास्तीत जास्त हव्यासापोटी तयार अन्न हि तो सेवन करताना दिसत नाही. जेव्हा योग्य वेळी योग्य प्रकारचा आहार सेवन करणे, आहारात सर्वच घटकांचे प्रमाण असणे, आहार सेवन करताना मन शांत ठेवणे, या सर्व बाबी त्याच्या आरोग्यावर परिणाम करतात. एकीकडे काही व्यक्तींना पुरेसा आहार मिळत नसल्याने आजार वाढतात. तर दुसरीकडे सर्व सोय उपलब्ध असूनही ते योग्य आहार सेवन केल्याने चयापचय शक्तीची झीज होऊन अनेक आजारांना बळी पडतात यासाठी सर्वांनी सर्वतोपरी प्रयत्न करावे.

आहारासोबत व्यायामाची गरज -

मानवाला जगण्यासाठी आहाराची जशी आवश्यकता आहे तशीच सेवन केलेल्या आहाराचे पचन होण्यासाठी व शरीर सुदृढ धड-धाकट राहण्याकरिता व्यायामाची गरज आहे. आजच्या धावपळीच्या जगात मानव यंत्रवत बनलेला आहे. त्यामुळे अधिक पैशाच्या हव्यासापोटी तो नेहमी धावपळ करतो. त्यामुळे त्याचे स्वतःच्या शरीरावर दुर्लक्ष होते आजच्या जीवन पद्धतीने प्रत्येकाला व्यायामाचा अभाव मोठ्या प्रमाणात जाणवतो. चांगले फिरणे, बोलणे कमी होऊन प्रसंगावरून हास्य, क्रोध, रडणे कमी झालेले दिसते त्याच्या आरोग्यावर सुद्धा परिणाम होऊन त्याला अनेक आजारांनी ग्रासलेले दिसते दिवसेंदिवस मनुष्य यांच्यावर अवलंबून असल्यामुळे त्याचे जागोजागी बैठे काम बौद्धिक काम, मानसिक ताण वाढविणारे कार्य करताना आढळतो. त्यासाठी आवश्यक आहार व व्यायाम याला मिळत नाही त्याचाही आरोग्यावर विपरीत परिणाम झालेला दिसतो. बदलत्या काळात संगणक, मोबाईल, टीव्ही यासारख्या अत्याधुनिक साधने याचा लहरी प्रदूषण भेसळ युक्त आहार शुद्ध पाण्याचा अभाव या विविध कारणांनी मानवाचे आरोग्य बिघडत असलेले दिसते.

प्राणायाम व आहार -

आजच्या जीवनशैलीत व्यायामाचा अभाव आहे. तो पूर्ण करण्यासाठी साधारणपणे योगा करणे व विशेषता प्राणायाम विषयना यातूनही सेवन केलेला आहारपचविण्यासाठी व योग्य शील पद्धतीने जीवन जगण्याची शक्ती प्रदान होते. श्वास आत घेणे, श्वास बाहेर सोडणे, आत रोखून धरणे श्वास बाहेर रोखून धरणे यामधूनही शरीर सुडौल करण्यास मदत होते.

निष्कर्ष

- १) मानव कोणता आहार कसा घेतो यावर त्याची शारीरिक मानसिक बौद्धिक क्षमता अवलंबून असते
- २) आहारावर व्यक्तीचे व्यक्तिमत्त्व अवलंबून असून त्यानुसार त्याचा राग लोक हाव या बाबी स्पष्ट होतात
- ३) योग्य आहारावर मानवाचे आरोग्य व विशेषता स्त्रियांचे आरोग्य अवलंबून असते स्त्री सुदृढ असेल तर देश सुखी व समृद्ध होऊ शकतो योग्य आहार व विदेशात कुपोषण बेरोजगारी निर्माण झाली आहे.

आहार विहार व्यायाम प्राणायाम यांचा प्रचार तसा व भारतासारख्या गरीब विकसित देशात समाजातील अज्ञान अंधश्रद्धा घालविण्यासाठी जागता करण्याची गरज आहे. मानवी आरोग्य सुदृढ करण्यासाठी मानवाला सकस सात्विक आहार त्याचे चलन-वल्न नैतिकताशील याची आवश्यकता आहे. ते पूर्ण करण्यासाठी मानवात प्राज्ञाशीलकरुणेची भावना निर्माण व्हावी यासाठी सर्व प्रकारचे घटक समाविष्ट असणारा आहार त्यासोबत योग्य व्यायाम प्राणायाम विषमता वाचन कृती असावी यासाठी शारीरिक स्तरावर तसेच समाजातील सांस्कृतिक क्षेत्रात मोठ्या प्रमाणात क्रांती होणार हीच ख-या आरोग्याची गुरुकिल्ली आहे.

संदर्भसूची:-

- उदरभरण नव्हे. :- डॉ. संध्या जोशी.
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पोषण व आहार :- शोभा वाघमारे.
परिपूर्ण आहार :- दिनांक 4 एप्रिल 2011 युवा विशेष हिंदुस्तान
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लोकराज्य अर्थ मंथन विपश्यना मासिक.
योगाने रोग दुरुस्ती :- द. ग. सोहनी 27 मार्च 2006 हिंदुस्तान

हवामानबदलामुळे मानवी आरोग्यावर होणारा परिणाम**राजेश पा. मेथ्राम**

सहाय्यक प्राध्यापक

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प्रस्तावना

हवामान व मानव यांचा संबंध प्राचीन काळापासून असून तो अतुट असा आहे. मानवाची कार्यक्षमता, मानसिकशक्ती व आरोग्य हे हवामानावर अवलंबून आहे. तापमान, सुर्यप्रकाश, आद्रता व वादळीस्थिती ह्या हवामान घटकांचा प्रामुख्याने परिणाम होतो. हवेतील तीव्र बदल मानवाच्या शरीरावर व मनावर परिणाम करतो. मानवी आरोग्याच्या दृष्टीने हवामानाची एक आदर्श स्थिती असते. ही आदर्शस्थिती त्यामनुष्याचा व्यवसाय, वय, जीवनमान यानुसार भिन्नभिन्न असते. प्रा. हॉटिंग्टनच्या मतानुसार 15⁰सें.ग्रे. सरासरी तापमान मनुष्याच्या स्फुर्तीसाठी व 21⁰सें.ग्रे. तापमान शरीरस्वास्थासाठी आवश्यक आहे. मनुष्याच्या शरीरावर तापमान व आर्द्रता यांचा संयुक्तपणे प्रभाव पडतो. वातावरणात सापेक्ष आर्द्रता वाढल्यास सुस्ती येते. 21⁰सें.ग्रे. तापमान व 20⁰ आर्द्रता शरीरस्वास्थास चांगले असते. परंतु सापेक्ष आर्द्रता 90% पेक्षा जास्त झाल्यास तेच तापमान कष्टदायक होते.

अभ्यासाची उद्दिष्टे

- 1) हवामानबदलामुळे मानवी आरोग्यावर होणा-या परिणामाचा अभ्यास करणे.
- 2) हवामानबदलामुळे पर्यावरणावर होणा-या परिणामाचा अभ्यास करणे.

अभ्यास क्षेत्र

अभ्यास क्षेत्रामध्ये संपुर्ण पृथ्वीवरील जगाचा अभ्यास करण्याचा प्रयत्न केला. पृथ्वीवरील बदलत्या हवामानाचा मानवी आरोग्यावर कशाप्रकारे परिणाम होतो हे स्पष्ट करण्याचा प्रयत्न केला.

अभ्यासाची संशोधन पध्दती

प्रस्तुत शोधनिबंधासाठी आवश्यक असणारी माहिती प्रामुख्याने मासिके, दैनिक वर्तमानपत्र व विषयाच्या संबंधीत संदर्भग्रंथ इत्यादींचा वापर करण्यात आला आहे.

हवामान व मानवी आरोग्य

कोणत्याही ठिकाणच्या दैनंदिन हवेचे अनेक वर्षनिरीक्षण करून वातावरणाच्या स्थितीची सरासरी काढल्यानंतर हवामान समजते. एखाद्या ठिकाणचे हवामान ठरवितांना तेथील हवेचे 30-35 वर्षांपर्यंत सतत निरीक्षण करावे लागते. हवेच्या तुलनेत हवामान अधिक स्थायी स्वरूपाचे आहे.

मानवाच्या सर्वक्रीयावर हवामानाचा प्रभाव खोलवर पडतो. काही हवामानाच्या प्रदेशात मलेरिया, हिवाताप अशा आजारांच्या डासाचे प्रमाण अधिक दिसते. जगातील जपानचे हवामान आरोग्याच्या दृष्टीने चांगले असूनही भर उन्हाळ्यात अतीदमट हवेमुळे लोकांना अशक्तपणा येतो. तसेच मृत्युचे प्रमाण ही वाढते. इजिप्तमधील कैरो येथील उष्ण व कोरड्या हवामानामुळे मृत्युचे प्रमाण जगातील इतरस्थळापेक्षा अधिक आहे. उष्ण हवामानातील मनुष्य सुस्त व आळशी बनतो तर थंड हवामानात अधिक कार्यकरण्याची कार्यक्षमता असते. आर्द्र व उष्ण हवामानात श्रमकरतांना शरिरातून घाम अधिक प्रमाणात बाहेर पडतो त्यामुळे कार्यक्षमता कमी होते. कुष्ठरोग व मलेरिया हे उष्णप्रदेशातील नेहमीचे रोग आहेत. फ्लुनिमोनिया हे रोग मध्य अक्षवृत्तीय प्रदेशातील आहे. वायुदाब आर्द्रता यात जास्तपरिवर्तन झाल्यास श्वास रोग व मासपेशीचा त्रास होतो. थंड व कोरड्या हवेत ओठ, गाल, पायफाटतात. हवेतील घनते तिब्र बदल पडल्यास चक्कर येतो.

वातावरणाती बाष्प मानवी शरीरातील तापमानाचे संतुलन कायम ठेवते. स्वच्छ व भरपूर सुर्यप्रकाशामुळे डी जीवनसत्व शरीराला मिळते. पचमडी, मसुरी, लोणावळा, स्विट्झरलँडमधील झुरीच ही शहरे तेथील आरोग्यवर्धक व निरोगी हवामानामुळे आरोग्यधामे म्हणून प्रसिध्द झाली. प्रसिध्द भूगोलत एल्सवर्थ हॉटिंग्टन यांनी हवामान व मानवी जीवन यांचा कार्यकारणभाव स्पष्ट करून जर्मनी, जपान, इंग्लंड व न्युझिलंड येथील समशितोष्ण हवामानामुळे त्यांची कार्यक्षमता वाढून दिवसातून 15-16 तास न दमता कार्य करतात. वातावरणातील वाढत्या प्रदुषणामुळे पृथ्वीवरील ओझोनचे आवरण कमी होऊन वातावरणात हानीकारक घटक वाढत आहे. त्यामुळे मानवाच्या त्वचेतील व्हिटामिन ई चे प्रमाण कमी होत जाऊन आरोग्याची हानी होते. सुर्याचे अतिनिल किरणे शरीरावर पडल्यास वाढत्या तापमानामुळे शरीरावर सुरकुत्या पडतात. चेह-यावर काळसर डाग पडतात. अशासमस्या तिब्र तापमानामुळे निर्माण होतात. हिवाताप हा एक प्रमुख रोग उष्णकटीबंधातील असून दरवर्षी यारोगाने हजारो लोक मरतात. पर्वतीय उंच भागात डासाचे प्रमाण कमी असते. परंतु वाढत्या उंची बराबर हवेच्या घनतेत व दाबात होणा-या कमतरतेमुळे मानवाला

ऑक्सीजनची गरज पडते. उंचीनुसार तापमान कमीहोण्याचे प्रमाण साधारणतः दर 160 मीटरला 1⁰से.ग्रे.आहे.त्यामुळे उंचीवर थंडीने गारठुन मृत्यु होतो.

इंग्लंडमधील सेंट्रल सायन्स लेबॉरिटीचे अभ्यासक रिचर्ड बेकर यांच्यामतानुसार जर युरोपथंडाचे तापमान 2.5⁰से.ग्रे.इतके झाल्यास इ.स. 2050 पर्यंत इंग्लंडमध्ये घातक जिवाणुची संख्या दुप्पटीने वाढेल. निरनिराळ्या उद्योग धंद्यामुळे हवेमध्ये धुर, सल्फर-डाय-ऑक्साईड सारखे निरनिराळ्या विषारी वायुयाचे प्रमाण गेल्या 50 वर्षांमध्ये खुपच वाढले आहे. मोटारीच्या वाढत्या संखेमुळेवातावरणात विषारी वायुचा भर पडत आहे. यामुळ स्मॉग सारख्या उपद्रवी धुक्याची निर्मिती होते या घटकाचा परिणाम मानवाच्या आरोग्यावर होतो.

उपाययोजना

- 1) पर्यावरणाचे संतुलनटिकुन ठेवणे महत्वाचे आहे.
- 2) वृक्षाची लागवड व संवर्धनकरणे.
- 3) हवामान बदलानुसार कृषीचे नियोजन व व्यवस्थापन करणे.
- 4) कार्बन-डाय-ऑक्साईड, मिथेन, सीएफसीएस इत्यादी वायुंवर नियंत्रण असणे.

निष्कर्ष

- 1) सतत तापमानात वाढ होत राहिल्यास हवामानात सुक्ष्म बदल होत जाईल.
- 2) हवामानबदलामुळे जैवविविधता –हास पावेल.
- 3) हवामानबदलामुळे पीक प्रारूप व पीकपध्दतीत बदल संभवतो.
- 4) हवामान बदलामुळे मानवी जीवन, राहणीमान, अन्न, पोषाख यामध्ये बदल होतो.

संदर्भग्रंथ

- 1) जागतिक तापमान : डॉ. पी.एम.नागतोडे, पिंपळापुरेअँडकंपनी पब्लीशर्स, नागपूर
- 2) पर्यावरणशास्त्र : रमेश उमाटे, डॉ. रेखा ठाकरे, विसाबुक्स, नागपूर
- 3) संपूर्णपर्यावरणशास्त्र : प्रा. ए. पी. चौधरी, प्रा.सौ.अर्चना चौधरी, प्रशांत पब्लीकेशन्स, जळगाव
- 4) भूगोल व पर्यावरण : 2013, प्रा. ए. बी. सवदी, निराळी प्रकाशन, पुणे
- 5) योजना मासिक : जुन 2013

आहार आणि पोषण मूल्य

डॉ. सिमा बा. अढाऊ

इंदिराबाई मेघे महिला महाविद्यालय, अमरावती.

सारांश :-

पोषण ही मानवी जीवनातील महत्वाचा व अविभाज्य घटक आहे. शरीराला ज्या प्रकारचा आहार मिळेल त्यावर शरीराचे सौष्ठव आरोग्य पुर्ननिर्मिती कार्य अवलंबून राहते. मानवाला सुखी, समाधानी आणि दिर्घ आयुष्य करिता उत्तम पोषणनतूनच प्राप्त होते. म्हणून पोषण हे आहार कशा प्रकारचा आहे तसेच कोणत्या वयात कोणता, किती कशा प्रकारचा आहार घेतला पाहिजे या संबंधात मानवी समुह वैज्ञानिक युगात सुध्दा परिपूर्ण ज्ञान प्राप्त करू शकला नाही. त्यामुळे समाजात आज सुध्दा कुपोषणा सारख्या विभिन्न समस्या मध्ये दिवसेंदिवस वाढ होत असून मानवाच्या विकासातील प्रमुख अडचण ठरत आहे. यावर उपाय निघावा म्हणून अभ्यासाकरीता आहार आणि पोषण मूल्य संबंध हा विषय अभ्यासकीने अभ्यासाकरीता निवड केली त्याकरीता गरोदर स्त्रिया हा प्रमुख घटक मानून १०० स्त्रियांची निवड केली. गरोदर स्त्रियांनी कोणती किती प्रमाणात आहार घ्यावा जेणेकरून निर्माण होणारे बाळ सुदृढ व सशक्त राहिल या दृष्टीने अभ्यास केला असता ८० % स्त्रियांना गरोदर काळात व प्रस्तुती नंतर ६ महिने पर्यंत कोणता किती प्रमाणात कशाप्रकारे आहार घ्यावा याबाबत माहिती नसते तर २० % स्त्रिया याबाबत पूर्णपणे माहितीगार असतात. त्यामुळे दिवसेंदिवस कुपोषणाचे प्रमाण वाढत आहे असा निष्कर्ष निघाला.

Key Words आहार, पोषण मूल्य

उद्देश :-

१. पोषण मूल्य आणि आहार संबंधाचा अभ्यास करावा.
२. आहारावर शरीराची सुदृढता कशी अवलंबून असते याचा अभ्यास करणे.
३. गरोदर स्त्रियांच्या आहाराचा गर्भाव्र होणाऱ्या परिणामाचा अभ्यास करणे.

पध्दती :- प्रश्नावली / मुलाखत सूची / निरीक्षण

कालावधी :- ५ महिन्यांच्या गरोदर स्त्रिया पासून तर बाळाच्या ६ महिन्यापर्यंत कालावधी.

निवड :- ५ महिने गरोदर असलेल्या १०० स्त्रियांची निवड करण्यात आली.

माहिती :- मानवी जीवनात आहार ही मुलभूत बाब आहे. अन्न, वस्त्र, निवारा या प्राथमिक गरजामध्ये आहार प्रथम स्थानी आहे. याचे कारण मानवी शरीराची जडण- घडण आणि पोषण ही आहारावर अवलंबून असते. अन्न हे केवळ पोट भरण्याचे माध्यम नाही तर आरोग्यादायी जीवन लाभाचे यासाठी पोषण आणि आहारशास्त्र जाणून घेणे आणि त्याप्रमाणे आपल्या आहारात उपयोजना करणे ही बाब महत्वाची आहे. याचे कारण स्वास्थ्य आणि कार्यक्षमता य दोन बाबींचा निकटचा सहसंबंध आहे.

शरीराची शारीरिक, मानसिक, कार्य सुरळीत चालविण्यासाठी जो परिपूर्ण व संतुलित आहार घेतला त्यास आपण सामान्य आहार म्हणतो.

आहाराचा दर्जा :- व्यक्तीच्या शरीरस्थिती प्रमाणे अन्नाचा उपयोग आणि त्याचे पचन यावर आहार दर्जा अवलंबून असतो.

आहाराच्या स्तरावरून व्यक्तीच्या आरोग्याची कल्पना येते. अन्न घटक हे अन्नापासून शरीराच्या वाढीसाठी शरीर संवर्धनासाठी प्राप्त होणारे रासायनिक संघटन आहे. हे अन्नघटक अन्नाद्वारे योग्य व आवश्यक त्याचप्रमाणात शरीरास नियमित मिळावयास पाहिजे. प्रथिने कर्बोदके स्निग्धे खनिजे जीवनसत्त्वे या अन्नघटकाची विशेष कार्य आपल्या शरीरास चालते. शरीराला उष्णता शक्ती देणे शरीराची संवर्धन व नियंत्रण हे सर्व अन्नघटकाच्या स्तरावर अवलंबून असते.

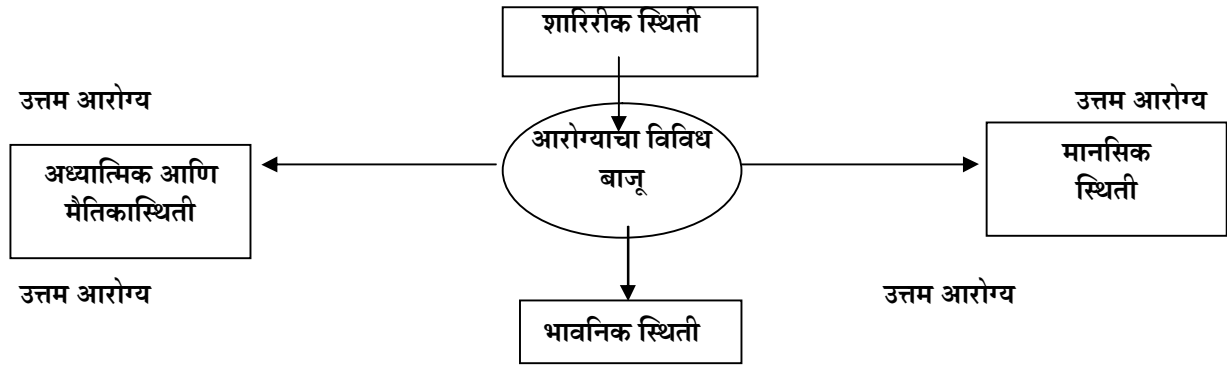
कुपोषण :- कुपोषण म्हणजे एक किंवा त्यापेक्षा अधिक पोषक तत्वाची दिर्घकाळाकरीता उणीव असणे त्याचे दुष्परिणाम शारीरिक वाढ विकासावर दिसून येतात. त्याला कुपोषण म्हणतो.

आहार नियमन शास्त्र :- विशिष्ट शारीरिक गर्भकाळात व अपत्यप्राप्ती नंतर ६ महिने पर्यंत कोणते अन्नपदार्थ टाकावेत कोणत्या अन्नपदार्थाचे सेवन करावे म्हणजे जेणेकरून आहार व पोषणाचा मेळ बसून बालक हे सुदृढ सक्षम निर्माण होवून सुदृढ देश निर्माण होण्यास सहकार्य कसे होईल या दृष्टीने अभ्यास घेणे अमरावती शहरातील गर्भधारणा नंतरच्या ५ महिन्यांनंतरचा कालावधी व अपत्य प्राप्ती नंतर ६ महिन्यांपर्यंत स्त्रिया कोणत्या आहार घेतात कशाप्रकारे घेतात व आहार आणि पोषणाचे सहसंबंधाची माहिती आहे काय ? आहाराचे बाळाच्या शरीर वाढीवर काय परिणाम होतात ? संबंधित कालावधीत घ्यावयाच्या आहारातील घटका संबंधात गर्भधारणेची स्त्रिया ह्या सद्ज्ञान असतात काय ? संबंधित कालावधीत घेत असलेल्या आहारात कोणते किती घटक असतात त्यातून किती उष्णता, कॅलरी, शक्ती किती निर्माण होते पेशींचे सर्वधन किती होते आणि त्याची किती गरज आहे तसेच विशिष्ट स्वरूपाचा आहार न घेतल्यास त्याचा गरोदर स्त्री च्या बालकांच्या शरीरावर काय परिणाम होतो ह्या विभिन्न पैलूनतून १०० स्त्रियांची माहिती प्राप्त करण्याकरीता स्त्रियांची मुलाखत घेवून खालील प्रमाणे माहिती प्राप्त झाली.

अ.क्र.	तपशिल	होय	%	नाही	%	एकुण
१.	गर्भधारणे नंतरच्या कालावधीत कोणता आहार घ्यावा.	१५	८५ %	१५	८५ %	१००
२.	आहार कशा प्रकारे घ्यायला पाहिजे हे माहित आहे का ?	१०	९० %	१०	९० %	१००
३.	किती आहार घ्यायला पाहिजे हे माहित आहे काय ?	१५	८५ %	१५	८५ %	१००
४.	आहार व पोषणाचा सहसंबंध काय आहे ? हे माहित आहे काय ?	२०	८० %	२०	८० %	१००
५.	आहाराच्या शरीर वाढीवर काय परिणाम होते हे माहिती आहे काय ?	१५	८५ %	१५	८५ %	१००
६.	कोणत्या आहारातून कॅल्शियम कॅल्सी प्रथिने लोह मिळते माहित आहे काय ?	२०	८० %	२०	८० %	१००
७.	आहारामधून किती कॅल्सी निर्माण होतात ?	१५	८५ %	१५	८५ %	१००
८.	आहारामधून किती कॅल्सी निर्माण होतात ?	१५	८५ %	१५	८५ %	१००
९.	संबंधित कालावधीत किती कॅल्सीची गरज असते याची माहिती आहे काय ?	१५	८५ %	१५	८५ %	१००
१०.	कॅल्सीची बालकांच्या शरीर वाढीकरीता काय गरज आहे याची माहिती आहे काय ?	१०	९० %	१०	९० %	१००

सारणी क्रमांक

वरील सारणी वरील गरोधर स्त्रिचे व बालकांचे आरोग्य आरसा समोर ठेवतला असता उत्तम आरोग्याची संकल्पना ही खालील आकृतीवरून लक्षात येते.



सारणीशी आरोग्याचा विविध पैलूचा संकल्पनेचा तुलनात्मक बाब विचारात घेवून सारणी वरून जी माहिती प्राप्त झाली त्या अनुषंगाने ८५ % स्त्रियांकडून नकारात्मक माहिती मिळाली तर २० % स्त्रियांकडून होकारार्थ माहिती प्राप्त झाली यावरून गर्भधारणे नंतरच्या काळात आहाराचा उद्देशानुसार खालील निर्देश प्राप्त होतात.

निष्कर्ष :-

८५ % स्त्रियांना पोषणमूल्य व आहार याचे ज्ञान नाही. ९० % स्त्रियांना आहार व शरीर सुदृढता यांच्या संबंधाची तयारी नाही. घेत असलेला आहार व त्यातील पोषण स्तर त्याचा गर्भावर व गर्भवतीवर काय परिणाम होतो याची ८५ % स्त्रियांना काही माहिती नाही.

शिफारशी :-

सुदृढ देशाच्या निर्मिती करीता शिक्षण घेत असणाऱ्या प्रत्येक घटकाला आधी पोषण आहार मुल्यांची ज्ञान कसे प्राप्त होईल या दृष्टीने अभ्यास प्रकारात समावेश निश्चित करण्यात यावा.

संदर्भ :-

१. प्रा. त्रिवेणी फरकाडे व सुलभा गांगे, कौटुंबिक संसाधनाचे व्यवस्थापन आणि आंतर समाजवट, पिंपळापूर अॅण्ड कं. पब्लिशर्स, नागपूर
२. डॉ. प्रदिप आगलो, संशोधन पध्दतीशास्त्र व तंत्र, विद्या प्रकाशन प्रथम आवृत्ती २००५.
३. प्रा. मावत कवी महिला कल्याण आणि विकास, विद्या प्रकाशन नागपूर.
४. प्रा. त्रिवेणी फरकाडे, पोषण व आहार शास्त्र.

गर्भावस्थेतील स्त्रीकरीता समृद्ध समतोल आहारची गरज

डॉ. किर्ती ज. गांधी

कला व विज्ञान महाविद्यालय, कुन्हा

सारांश :-

मानवी जीवनातला आहार हा अविभाज्य घटक आहे. शरीराला ज्या प्रकारचा आहार मिळेल त्यावर शरीर सौष्टव, आरोग्य, पुननिर्माती कार्यशक्ती अवलंबून असते.

आरोग्य चांगले राहण्यासाठी समतोल आहाराची आवश्यकता असते. मानवी जीवनात अनेक अवस्था आहे. त्यामध्ये गर्भवस्था ही स्त्री करीता अत्यंत महत्वाची अवस्था आहे. या अवस्थेमध्ये समतोल आहाराची आवश्यकता ही अधिक असते. त्यानुसार कॅल्शियम, जीवनसत्त्वे, प्रथिने, खनिजे, स्निग्धपदार्थ आणि लोह यानुसार पोषक घटकयुक्त आहार द्यावा. जेणेकरून प्रसूती होताना कोणतीही अडचण येणार नाही.

गर्भवस्थामध्ये स्त्रीला जास्त काळजी घ्यावी लागते कारण - गर्भवस्थेमध्ये स्त्रिला स्वतःचे व गर्भामध्ये असणाऱ्या बाळाचे पोषण करावे लागते म्हणून या अवस्थेमध्ये जास्त काळजी घेणे, समतोल आहार घेणे अत्यंत आवश्यक आहे. या अवस्थेमध्ये जर गर्भवती स्त्रीला समतोल आहार मिळाला नाही तर प्रसूती नंतर जन्माला येणारे बालक हे अपरिपक्व जन्माला येईल. आणि बालकांना आणि मानेला त्यांच्या आरोग्यास घेवून अनेक समस्या निर्माण होतात. या समस्यांना आळा घालण्यासाठी गर्भवती स्त्रीला पोषक घटकांची दैनंदिन आवश्यकता लक्षात घेवून ज्यांची पूर्ती करणे आवश्यक आहे.

प्रस्तावना :-

मानव ही निसर्गाची एक अत्यंत सुंदर कलाकृती आहे सर्व सजीव सृष्टीमध्ये मानव हा घटक महत्त्वपूर्ण आहे आणि 'मातृत्व' ही स्त्रीला मिळालेली देणगी आहे. स्त्रीच्या जीवनात मातृत्वाला अतिशय महत्वाचे स्थान आहे. मातृत्वा अभावी स्त्रीला आपले निरस अपूर्ण वाटते असे हे जीवनाला नविन अभारी आणणारे मातृत्व मिळण्याकरीता स्त्रीला गर्भावस्थेमध्ये पुरेशी काळजी घेणे आवश्यक असते. गर्भावस्थेमध्ये स्त्री समाधानी, आनंदी बनते घरामध्ये चैतन्य निर्माण होते. याकरीता स्त्रीचे मानसिक व शारीरिक स्वास्थ्य चांगले असणे आवश्यक असते.

गर्भावस्थेमध्ये स्त्रीच्या आरोग्यावर बाळाचा जन्मपूर्व व जन्मानंतरचा सर्वांगीण विकास अवलंबून असतो. त्याकरीता गर्भावस्थेमध्ये स्त्रीला आपल्या आरोग्याची योग्य काळजी घ्यावी लागते. गर्भावस्थेमध्ये गर्भवती स्त्रीचा आहार, व्यायाम, विश्रांती, नियमित वैद्यकीय तपासणी व्यक्तीगत स्वच्छता, पादत्राणे, कपडे याकडे पुरेसे लक्ष दिल्यास स्त्रीचे आरोग्य चांगले राहण्यास मदत होते. स्त्रीला गर्भावस्था सुसह्य होऊन बालकाचा विकास योग्य होण्यास मदत होईल.

हे अभ्यासण्याचे एक मुख्य शास्त्र म्हणजे गृहअर्थशास्त्राची एक शाखा पोषण व आहारशास्त्र आणि मानव विकास ही होय.

प्रस्तुत संशोधनामध्ये गर्भावस्थेतील स्त्रीकरीता समृद्ध समतोल आहार कसा असावा हे समजून घेण्याचा प्रयत्न केलेला आहे.

आहार (Diet) :- "जे पदार्थ द्रव किंवा घन स्वरूपात मुखाद्वारे मानवाकडून सेवन केले जातात. त्यांचे पचन शोषण होऊन मानवी शरीराचा वाढीवर व आरोग्यावर परिणाम होतो अशा अन्नपदार्थांना मिळून आहार असे म्हणतात."

आहार हे लक्षात आल्यानंतर आपल्याला समतोल आहार म्हणजे काय हे समजून घेणे अत्यंत महत्वाचे आहे.

समतोल आहाराला संतुलित आहार किंवा चौरस आहार असेही म्हणतात. सुदृढ, सुखी व स्वास्थ्यपूर्ण जीवन जगण्यासाठी दररोज आहारात सर्व पोषक घटकयुक्त आहार घेणे आवश्यक आहे त्यामुळे शरीराची विविध कार्य सुरळीतपणे पार पाडली जातात. हा समतोल आहार कमी प्रमाणात घेतल्याने त्यांचा परिणाम त्यांच्या शरीरावर दिसून येतो. त्यामुळे मानवाने योग्य प्रमाणात समतोल आहार घेणे आवश्यक आहे. त्यासाठी दररोज आहारात सर्व पोषक घटके उदा. :- प्रथिने, कर्बोदके, स्निग्ध जीवनसत्त्वे, खनिज द्रव्ये व पाणी हे योग्य प्रमाणात मिळण्यासाठी सर्व अन्नघटकांचा योग्य प्रमाणात तृणधान्य, कडधान्ये, सर्व प्रकारच्या भाज्या, फळे, तेलतुप, दुध, मास, मासे, अंडी, साखर व गुळ यांचा समावेश असणे अत्यंत आवश्यक आहे आयाच समतोल आहार, संतुलित आहार किंवा चौरस आहार असे म्हणतात.

संतुलित आहाराची व्याख्या :-

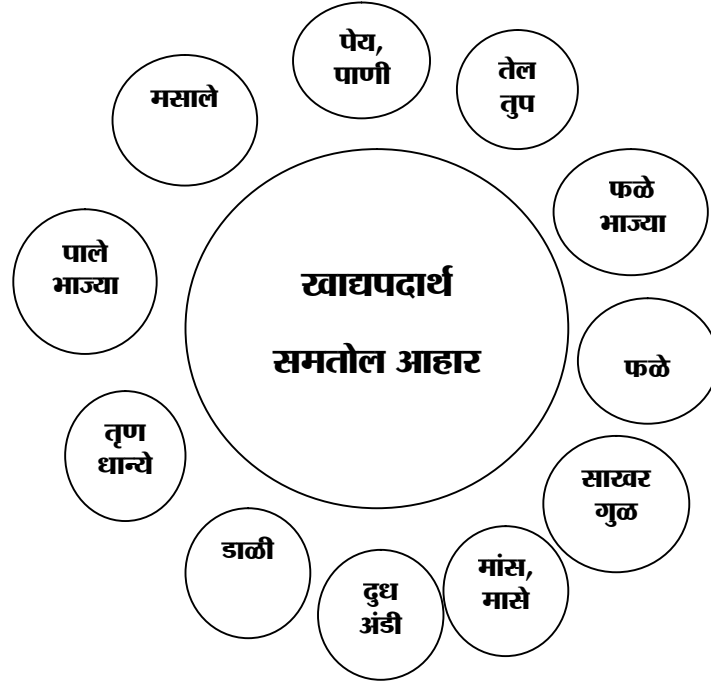
१) त्रिवेणी फरकाडे, सुलभा गोंगे यांच्या मते, "समतोल आहार म्हणजे शरीराला आवश्यक असणारे पोषकत्वे वा व्यक्तीच्या वयानुसार शरीर स्थितीनुसार, कार्यानुसार तसेच प्राप्त भौगोलिक परिस्थितीत गरजेनुसार पाहिजे त्या मात्रेमध्ये

प्रमाणात असणे तसेच त्या आहारात कमी कालावधी करीता शरीर पोषणाच्या भविष्याकरीता तरतुद असणे अशा आहाराला समतोल आहार असे म्हणतात."

२) प्रा. सौ. शोभा वाघमारे (नार्डक) यांचया मते, "समतोल आहार म्हणजे असा आहार ज्यात सर्व अन्नपदार्थांचा योग्य त्या प्रमाणात समावेश असतो ज्यातुन सर्व पोष घटके योग्य त्या प्रमाणात मिळुन शरीराची तिन्ही कार्य सुरळीतपणे पार पाडली जातात."

३) मानवी शरीरास आवश्यक असे अन्नघटक (पोषक घटक) आवश्यक त्या परिणामात विविध खाद्यपदार्थांच्याद्वारे ज्या आहारातुन मिळतात त्या आहारास समतोल आहार म्हणतात."

समतोल आरातील खाद्यपदार्थ समुहातील घटक नोंदविण्यासाठी त्रिवेणी फरकाडे व सुलभा गोंगे यांच्या पुस्ताकातील तक्ता अभ्यासणीय आहे.



गर्भावस्थेची लक्षणे (Symptoms of Pregnancy) :-सर्वसाधारणपणे गर्भावस्थेमध्ये खालील लक्षणे प्रामुख्याने आढळतात.

१) **मासिक पाळी बंद होणे (Amenorrhoe) :-** याला अनार्तन असे देखील म्हणतात. स्त्रीला दरमहिन्याला नियमित येणारी मासिक पाळी बंद झाल्यास तिला गर्भधारणा झाली असे समजण्यात येते परंतु काही स्त्रियांची पाळी पूर्णपणे बंद होत नाही. अगदी थोड्या प्रमाणात रक्तस्राव सुरु राहतो, पोटात दुखते, शिवाय काही स्त्रियांची मासिक पाळी अनियमित असते. त्यामुळे जर दोन महिने मासिक पाळी आली नाही तर वैद्यकीय तपासणी केल्यास स्त्री गर्भवती आहे किंवा नाही हे निश्चितपणे कळू शकते. कारण रक्तक्षय, क्षय या रोगांमुळे देखील मासिक पाळी बंद होवू शकते त्यामुळे वैद्यकीय तपासणी करणे आवश्यक ठरते.

२) **प्रातः वमन (:Morning Sickness) :-** गर्भ - धारण झालेल्या स्त्रीला सकाही उठल्यापासुन मळमळल्यासारखे व अस्वस्थ वाटते, कोरड्या उलट्या येतात. काही खाल्यास उलटुन पडते. पदार्थांचा वास सहन होत नाही. या वासामुळे अस्वस्थ वाटते. उतुन उभे राहिल्यास चक्कर आल्यासारखे वाटते. असा त्रास काही स्त्रियांना संध्याकाळी देखील होतो. साधारणपणे सुरुवातीला दोन तीन महिन्यात हा त्रास होतो. काही स्त्रियांमध्ये हा त्रास सुरुवातीपासुन शेवटपर्यंत होतो. अशावेळी स्त्री अतिशय अशक्त होते.

३) **स्तनातील बदल (Mammary Changer) :-** गर्भधारणा झाल्यापासुन साधारणपणे ६ व्या आठवड्यापासुन स्तनांमध्ये बदल व्हावयास सुरुवात होते. स्तनांचा आकार मोठा होतो. त्याच्या शिरा ताणल्या जावुन ती टणक होतात. स्तनात चुणचुण (Tingling) अशी संवेदना निर्माण होते स्तने भरल्यासारखी वाटतात. हात लावल्यास दुखतात स्तनाग्रांच्या सभोवतालच्या छोट्या ग्रंथीची तोंडे स्पष्टपणे दिसतात व ३.८ से. मी. ची जागा काळसर होते. स्तनाग्राला भेगा पडतात. १२ आठवड्यांनंतर स्तनाग्रे दाबल्यास कोलोस्ट्रम (Colostrum) नावाचा पिवळसर स्राव बाहेर पडतो. गर्भावस्थेमध्ये स्तनांना

होणारा रक्ताचा पुरवठा वाढतो व त्वेचखालील शीरा निळसर दिसतात. स्तनातील हे बदल प्रथम गर्भावस्थेमध्ये अधिक प्रकर्षाने जाणवतात.

४) **थकवा (Feeling of Fatigue) :-** गर्भधारणेनंतर काही दिवस स्त्रीला अतिशय झोप व थकवा येतो. काही करण्याची इच्छा किंवा उत्साह नसतो. शरीरात होणाऱ्या बदलामुळे हा त्रास स्त्रीला होतो काही महिन्यांनंतर हा त्रास हळूहळू कमी होतो.

५) **वारंवार लघवीला जाणे (Frequency in Grination) :-** तीन महिन्यांनंतर गर्भशय पुढे झुकलेले व मुत्राक्षयावर टेकते. ओटीपोटाचा आकार वाढतो. त्यामुळे त्याचा दाब मुत्रशयावर येतो त्यामुळे वारंवार लघवीला जावे लागते. सुरुवातीच्या तीन महिने व शेवटच्या २ - ३ महिन्यात हा त्रास अधिक होतो.

६) **मानसिक असंतुलन (Mental Disturbances) :-** स्त्रीमध्ये होणाऱ्या शारीरिक बदलाशी समायोजन साधने स्त्रीला जड जाते. त्यामुळे स्त्रीवर मानसिक ताण येतो. खाण्यापिण्याच्या बदललेल्या सवयी, हड्डीपणा, चिडचिडेपणा, एकातवास या प्रवृत्ती वाढीस लागतात कालांतराने गर्भाचे स्त्रीच्या शरीरात समायोजन झाले की ही लक्षणे नाहीशी होतात.

७) **गर्भचन ज्ञान (Quickening) :-** साधारणपणे १८ आठवड्यांनंतर गर्भ गर्भाशयामध्ये पहिल्यांदा फिरल्याचा भास होतो. यालाच गर्भचलन ज्ञान म्हणतात. १८ व्या आठवड्यापर्यंत गर्भोदक आधिक असल्याने गर्भाच्या हालचालीची जाणीव होत नाही. प्रथम गर्भवती असलेल्या स्त्रीला ही हालचाल लवकर लक्षात येत नाही.

८) **उदरातील बदल (Change in Abdomen) :-** गर्भधारणा झाल्यानंतर गर्भाशयात होणाऱ्या वाढीमुळे पोटाचा आकार वाढतो. सुरुवातीला पहिले ३ महिने गर्भ कटीर पोकळीत असल्याने उदराच्या आकारामध्ये फारसा बदल जाणवत नाही. त्यानंतर मात्र गर्भाशयाचा आकार वाढतो. गर्भावस्थेतील उदराची वाढ ही निश्चित काळात व नियमित प्रमाणात होते. यावरून कोणता महिना आहे हे लक्षात येते.

गर्भावस्थेमध्ये घ्यावयाची काळजी :-

गर्भावस्थेमध्ये स्त्रीचे आरोग्य चांगले राहणे व बाळाच्या निकोप वाढीकरीता खालील बाबीकडे लक्ष घावे.

(१) **आहार :-** आहार व आरोग्याचा घनिष्ट संबंध असल्याने गर्भावस्थेतील आहारावरच बालकांच्या भावी जीवनाचा पाया घातला जातो. गर्भवती स्त्रीचा आहार समतोल पौष्टिक व पर्याप्त अन्न घटक प्राप्त होणारा असल्यास गर्भाची वाढ तर योग्यप्रकारे होतेच याशिवाय आईची प्रकृती निरोगी राहते. प्रसूतीच्या वेळी कमी त्रास होतो व त्रास सहन करण्याची ताकद स्त्रीमध्ये निर्माण होते दुग्धसर्जन काळात नवजात शिशूची आहाराची आवश्यकता पूर्ण होऊ शकते. यादृष्टीने गर्भावस्थेतील आहाराला विशेष महत्व आहे. या अवस्थेमध्ये गर्भाचे ९ महिने पोषण स्त्रीला करावे लागते. त्यामुळे स्त्रीची कॅलरीची आवश्यकता वाढलेली असते. या अवस्थेमध्ये सामान्य अवस्थेपेक्षा ३०० कॅलरी अधिक लागतात. साधारणतः गर्भवती स्त्रीला रोज २२५० ते ३००० कॅलरीची आवश्यकता असते. या कॅलरीची पूर्तता होण्याच्या दृष्टीने आहारामध्ये प्रथिने, स्निग्ध पदार्थ, कार्बोदके, जीवनसत्वे, क्षार व पाणी यांचा समावेश योग्य प्रमाणात करणे आवश्यक आहे.

(२) **व्यायाम :-** निरोगी व सुदृढ शरीराकरीता व आनंदी जीवन जगण्याकरीता पुरेसा व्यायाम करणे, प्रत्येकाला आवश्यक असते. गर्भवती ही स्त्रीचा जीवनातील नैसर्गिक अवस्था आहे. स्त्रीने घरातील सर्व कामे केल्यास तिचा व्यायाम होतो. व गर्भाची वाढ योग्य होण्यास कदत होते परंतु अधिक श्रमाची, कष्टदायक कामे टाळावीत. रोजची हलकी कामे केल्याने स्त्रीने शरीर व स्नायू कार्यक्षम राहतात. सकाळी व संध्याकाळी फिरायला जावे. त्यामुळे शरीराला शुद्ध हवा मिळेल व रक्ताभिसरण क्रिया, पचनक्रिया योग्य होण्यास मदत होईल. शरीरामध्ये हलकेपणा, स्फुर्ती कायम राहण्यास मदत होईल.

स्त्रीने आपल्या उभे राहणे, बसणे, झोपणे, या क्रिया करतांना शरीराची स्थिती योग्य ठेवावी. जेणेकरून ताण पडून थकवा येणार नाही. विश्रांती मिळेल. गर्भविरचेमध्ये गर्भवती स्त्रीने कोणता व्यायाम करावा याकरीता डॉक्टरांचा सल्ला घ्यावा.

(३) **विश्रांती व झोप :-** गर्भावस्थेमध्ये स्त्रीला व्यायामासोबतच विश्रांती व झोपेची गरज असते. गर्भवती स्त्रीला रात्रीची ८ तास झोप आवश्यक असते रात्री झोपतांना पायाखाली उशी घ्यावी. त्यामुळे गर्भाशयाचा ओटीपोटी, अंतर्गत इंद्रिये, व पायावर पडणारा भार कमी होऊन पोटाकडे रक्तभिसरण क्रिया अधिक चांगल्या प्रकारे होऊ शकेल. रात्री झोपण्यास फार उशीर करू नये व सकाळी लवकर उठावे तसेच ५ महिन्यांनंतर स्त्रीला वारंवार लघवीला जाण्याकरीता उठावे लागते त्यामुळे झोपमोड होते तेव्हा दुपारी जेवण झाल्यानंतर थोडावेळ विश्रांती घ्यावी.

दुपारी झोप आली तरी १ - २ तास अंतरावर पडून रहावे दुपारी झोप येत नसल्यास गंमतीशीर, मन प्रफुल्लित करणारी पुस्तके वाचावीत. थोर व्यक्तींचे चरित्र वाचावे याचा नकळत चांगला परिणाम गर्भावर होत असतो.

(४) **ताजी हवा व सुर्यप्रकाश :-** गर्भवती स्त्रीने स्वच्छ हवा व सुर्यप्रकाश घरामध्ये येईल याची दक्षता घ्यावी. सकाळी ताज्या व शुद्ध हवेमध्ये फिरावयास जावे. जीवनसत्व 'ड' च्या प्राप्तीकरिता सकाळच्या कोवळ्या सुर्यकिरणांमध्ये हलकी कामे करावीत. शुद्ध हवा व सुर्यकिरण यामुळे गर्भवती स्त्रीचे आरोग्य चांगले राहण्यास मदत होते.

(५) **व्यक्तीगत स्वच्छता :-** व्यक्तीचे शरीर निरोगी राहण्याकरीता व्यक्तीगत स्वच्छता असणे आवश्यक असते गर्भवती स्त्रीने मात्र व्यक्तीगत स्वच्छतेकडे अधिक लक्ष द्यावे. यामध्ये शरीरिक स्वच्छता, स्तनांची काळजी, दांताची काळजी, कपडे, पादत्राणे, यांचा समावेश होतो.

(६) **धुम्रपान :-**

ही समस्या आपल्याकडे फारशी आढळत नसली तरी ग्रामीण भागातील काही स्त्रिया तंबाखुचे सेवन करतात. याचे वाईट परिणाम गर्भावर होत असल्याने शक्यतोवर गर्भवतीने तंबाखु सेवन किंवा धुम्रपान टाळावे.

(७) **नियमित वैद्यकीय तपासणी :-**

गर्भवती स्त्रीचा शारीरिक व मानसिक आरोग्याची काळजी घेतांना नियमित वैद्यकीय तपासणी करणे आवश्यक असते स्त्रीला गर्भधारण झाल्यानंतर दीड महिनानंतर तिने डॉक्टरांकडे तपासणीकरीता यावे. यावेळी डॉक्टरांकडे तिची नोंदणी केली जाते. यामध्ये नाव, वय, व्यवसाय, राहण्याचे ठिकाण याची नोंद केली जाते. स्त्रीच्या वयावरून डॉक्टरांना प्रसुतीबद्दलचे अनुमान काढण्यास मदत होते. यादृष्टीने गर्भवती स्त्रीचे वजन, मुत्राची तपासणी, रक्ताची तपासणी, रक्तदाब यांचा समावेश करण्यात येतो.

(८) **प्रवास :-**

गर्भवती स्त्रीची शारीरिक स्थिती, आरोग्य कसे आहे यावर तिने प्रवास करावा किंवा नाही हे ठरते. स्त्रीची प्रकृती चांगली असल्यास विमान, रेल्वे, गाडी यांनी प्रवास करण्यास हरकत नसते ७ व्या महिन्यानंतर मात्र लांबचा प्रवास टाळावा प्रकृती नाजूक असल्यास मात्र डॉक्टरांच्या सल्ल्यानुसार प्रवास टाळावा.

अशाप्रकारे गर्भवती स्त्रीची काळजी घेतल्यास गर्भावस्था सुसह्य होऊन प्रसुती त्रासदायक होणार नाही. गर्भावस्था हा ९ महिन्यांचा कालावधी आनंददायी, सुसह्य होण्याच्या दृष्टीने बऱ्याच गोष्टी महत्वाच्या ठरतात. त्याकरीता गर्भावस्थाचे कुटुंबातील इतर सदस्यांचे सहकार्य व त्यांची सकारात्मक प्रवृत्ती असणे आवश्यक ठरते.

गर्भावस्थेतील पोषक घटकांची आवश्यकता

आहार व आरोग्याचा घनिष्ठ संबंध असल्याने गर्भावस्थेतील आहारावरच बालकाच्या आणि जिवनाचा पाया घातला जातो. गर्भवती स्त्रीचा आहार समतोल व पौष्टिक व पर्याप्त अन्न घटक प्राप्त होणारा असल्यास गर्भाची वाढ योग्य प्रकारे होते. स्त्रीच्या आहारामध्ये प्रथीने स्निग्ध पदार्थ कर्बोदके जीनवसत्वे क्षार व पाणी यांचा समावेश योग्य प्रमाणात करणे आवश्यक आहे ते खालील प्रमाणे :-

अ) **प्रथिने (Protein) :-**

प्रथिने हे शरीरामध्ये नवीन पेशींच्या निर्मितीचे कार्य करीत असतात. गर्भावस्थेच्या कालावधीत शरीरामध्ये नवीन पेशींच्या तीव्र गतीने होत असते. गर्भाची वाढ होणे. नवीन अवयवांची निर्मिती योग्य प्रमाणात होण्याकरीता आहारामध्ये प्रथिनांचे प्रमाणे अधिक असावे. सर्वसाधारण स्त्रीला प्रत्येक किलो वजनाला १ ग्रॅम प्रथिनांची आवश्यकता असते. उदा. स्त्रीचे वजन ३२ किलो असेल तर तिला ५२ किलो प्रथिनांची गरज असते. परंतु गर्भावस्थेमध्ये ही आवश्यकता ८० ते ९० ग्रॅम पर्यंत वाढते ICMR नुसार गर्भावस्थेमध्ये ९० ग्रॅम प्रथिनांची बालकाचे स्नायु, त्वचा, रक्त, मज्जासंस्था व शरीर बांधणीकरीता प्रथिनांची गरज असते. तसेच नखे, केस यांची निर्मिती देखील केली जाते.

आहारामध्ये प्रथीनांची कमतरता असल्यास गर्भाचा शारीरिक व मानसिक विकास योग्य होत नाही. गर्भाशयाचे स्नायु कमजोर व शिथिल होतात. वारेची व गर्भाची वाढ होत नाही.

प्रथिने प्राप्तीकरीता स्त्रीने आहारात अंडी, मांस, मासे, दुध या प्राणिज प्रथीनांचा समावेश करावा. सर्व डाळी, कडधान्ये, शेंगदाणे सोयाबीन, मोड आलेली कडधान्ये तसेच इतर अन्न समृद्धी करण्याच्या विविध पद्धतीचा वापर करून आवश्यक अमीनो ॲसिड प्राप्तीचा प्रयत्न करावा. खमिकरीकरण, एकत्रीकरण या प्रक्रियाद्वारे भोज्य पदार्थातील प्रथिने वाढवावी.

ब) **कर्बोदके (Carbohydrates) :-**

भारतीय आहारामध्ये कर्बोदकाचे प्रमाणे अधिक असते. त्यामुळे त्यांच्या प्राप्तीसाठी विशेष काळजी घ्यावी लागत नाही. तृणधान्ये, साखर, गुल यापासून कर्बोदके विपूल प्रमाणात मिळतात. गर्भवती स्त्रीला साधारणपणे ३२९ कर्बोदकांची आवश्यकता असते. गर्भवती स्त्रीला मधूमेह हा आकार असल्यास मात्र कर्बोदकांचे आहारातील प्रमाण डॉक्टरांच्या सल्ल्यानुसार ठरवावे.

ब) **स्निग्ध पदार्थ (Fats) :-**

कॅलरीची प्राप्ती व वजन वाढविण्याकरीता स्निग्ध पदार्थाची आहारात आवश्यकता असते. सर्वसाधारणपणे ९० ग्रॅम प्रथिनांची गर्भवतीला दैनंदिन आवश्यकता असते. गर्भाची वाढ होणे, हृदय, मुत्रपिंड यासारखे नाजूक इंद्रियांची निर्मिती व

संरक्षणासाठी त्वचेखाली चरबीयुक्त पेशींचा थर तयार करण्याकरीता स्निग्ध पदार्थाची गरज असते. आहारात स्निग्ध पदार्थ असल्यास अ,ड,ई,के या स्निग्ध द्राव्य जीवनसत्वाचे पचन व शोषण होण्यास मदत होते. याकरीता अंडी, यकृत, दूध, माशाचे तेल, भुईमुंग, जवस, तीळ, तेल, तूप, जाडकवचाची फळे याचा वापर करावा.

क) जीवनसत्वे (Vitamin) :-

अभावाच्या रोगांपासून संरक्षण करण्याकरीता, शरीराची वाढ व शरीराचे कार्य सुरळीत चालण्याकरीता जीवनसत्वाची आवश्यकता असते. गर्भावस्थेमध्ये अ,ड,ई,के,क,ब या जीवनसत्वाची आवश्यकता असते.

i) जीवनसत्व अ :-

बालकाची शारीरिक वाढ योग्य होणे, डोळे व त्वचा निरोगी राहण्याकरीता, रोगप्रतिकार शक्ती निर्माण करण्याकरीता जीवनसत्व अ ची आवश्यकता असते. ६००० I.U. जीवनसत्व अ दररोज आहारातून प्राप्त व्हावे, त्याच्या प्राप्तीकरीता पालक, मेथी यासारख्या हिरव्या पालेभाज्या, पपई, लाल भोपळा, गाजर, टोमॅटो, अंडी, यकृत, दूध, लोणी यांचा समावेश करावा.

ii) जीवनसत्व ड :-

निलातील सुर्यकिरण, माशाचे तेल, चीज, अंडी यापासून प्राप्त होते. गर्भवती स्त्रीला ४०० I.U. जीवनसत्व ड ची गरज असते. कॅल्शियम व फॉस्फोरसचे शोषण व दातांची वाढ व मजबुती याकरीता या जीवनसत्वाची आवश्यकता असते.

iii) जीवनसत्व ई, के :-

गर्भाच्या वाढीकरीता व स्वास्थ्याकरीता आवश्यक असते.

iv) जीवनसत्व क :-

रक्तकणातील हिमोग्लोबीनची निर्मिती रोगप्रतिकार शक्ती वाढविणे लोहाचे अभिशोषण याकरीता जीवनसत्व क ची आवश्यकता असते. रोज १०० ग्रॅम जीवनसत्व क गर्भवती स्त्रीला मिळावयास हवे. आवळे, संत्री, लिंबू, पेरू, टोमॅटो, कोथिंबीर, गोडलिंब, शेवग्यांची पाने, पानकोबी, मुळा, यांचा आहारात समावेश करावा. वरील सर्व घटकांचा समावेश असलेला आहार गर्भवतीने घेणे आवश्यक आहे.

प्रसुतीपूर्व विकासावर/गर्भावस्थेवर परिणाम करणारे घटक :-

बालकांच्या जन्मपूर्व विकासावर स्त्रीच्या शरीरांतर्गत घटक व बाहेरील घटकांचा चांगला व वाईट परिणाम होत असतो हे शास्त्रज्ञांचा संशोधनावरून सिद्ध केले आहे.

१. आईचा आहार :-

गर्भाच्या विकासाचा वेग त्यांच्या जन्मानंतर होणाऱ्या सर्व टप्प्यातील विकासाच्या गतीच्या तुलनेत सर्वाधिक असतो त्यामुळे बालकाला अधिक पोषक घटकांची गरज असते. त्यादृष्टीने आईचा आहार व बालकाचा जन्मपूर्व विकास याचा घनिष्ट संबंध आहे आईचा आहार पौष्टिक समतोल असणे आवश्यक आहे समतोल आहारामुळे स्त्रीची प्रकृती उत्तम राहून सुदृढ बालकाची निर्मिती होऊ शकते बालक आपला आहार आईच्या रक्तातून प्राप्त करतो.

टोरोन्डो विद्यापीठामध्ये केलेल्या संशोधनानुसार ज्या स्त्रियांचा आहार योग्य व पुरेसा होता. त्यांची प्रकृती गर्भावस्थेमध्ये चांगली होती. या स्त्रियांमध्ये गर्भपात, रक्तदाब, अशा समस्या आढळल्या नाही. तर ज्या स्त्रियांचा आहार अपर्याप्त, अयोग्य व असमतोल होता. त्यांच्या बाबतीत वरील समस्या आढळून आल्यात. या स्त्रियांनी अशक्त कमी वजनाची व वारंवार आजारी पडणाऱ्या बालकांना जन्म दिला. त्याचप्रमाणे गर्भवती स्त्रीला आहारातून पुरेशा कॅल्शियम प्राप्त होत नसल्यास त्याचा परीणाम आईच्या स्वास्थ्यावर होतो. पर्यायाने बालकाला अवयव निर्मितीकरीता आवश्यक घटक प्राप्त होऊ शकत नाही. यादृष्टीने आईचा आहारात प्रथिने, कर्बोदके, खनीज पदार्थ व जीवनसत्वे या अन्न घटकांचा समावेश अत्यंत आवश्यक आहे.

२. मातापित्यांचे वय :-

गर्भाची वाढ निकोप होणे व मातृत्वाची जबाबदारी समर्थपणे पूर्ण करण्याकरीता स्त्रीचा प्रजनन संस्थेमध्ये परिपक्वता येणे आवश्यक असते. त्याकरीता २२ ते २९ वर्ष ह्या वयामध्ये गर्भाचा विकास व प्रसुतीची प्रक्रिया सुरळीत व सुलभ होण्यास मदत होते. कारण २२ वर्ष पर्यंत स्त्रीचा प्रजनन संस्थेचा विकास पूर्ण झाला असतो याउलट आईचे वय १६ वर्षांच्या आत असल्यास बालमृत्युची संख्या अधिक असते. असा निष्कर्ष Doll phels आणि Meleler यांनी काढला आहे तसेच १९ ते २१ वर्ष त्यामध्ये प्रजनन संस्थेचे अवयव अपरिपक्व असतात. त्यामुळे गर्भाची वाढ अयोग्य होते स्त्रीच्या शारीरिक विकासावर परिणाम होतो.

३. जीवनसत्व कमतरता :-

जीवनसत्व क, ब ६, ब १२, ई,के यांची कमतरता असल्यास नेहमीच्या विकासाच्या निश्चीत आकृतीबंधापेक्षा बालकाचा विकास कमी होतो.

४. **आईचे आरोग्य :-**

गर्भावस्थेमध्ये आईचा आरोग्याच्या गर्भाच्या वाढीवर अतिशय प्रभाव पडतो स्त्रीचे वजन अतिशय कमी किंवा अतिशय जास्त असणे गर्भवती स्त्रीला रुबेला, कावीळ, मधुमेह यासारखे आजार झाल्यास आंतरस्रावी ग्रंथीच्या कार्यामध्ये बिघाड झाल्यास गर्भाच्या वाढीवर विपरीत परिणाम होतो.

५. **मादक पदार्थाचे सेवन :-**

गर्भवती स्त्रीने अंमली पदार्थ तंबाखू, धुम्रपान, मद्यपान यासारख्या मादक पदार्थांचे सेवन केल्यास गर्भाच्या विकासावर त्यांचा विपरीत परिणाम पडतो.

Thompson यांच्या मतानुसार, आईच्या व बालकाच्या रक्तप्रवाहामध्ये संबंध असतो या प्रवाहामुळे आईच्या रक्तामध्ये असलेल्या परकीय रसायने गर्भाकडे निश्चितच संक्रमित केली जातात. स्त्रीने नियमित व अधिक मद्यपान केल्यास त्याचा परिणाम बालकाच्या शारिरीक व मानसिक विकासाला हानी पोहचते. तंबाखू किंवा धुम्रपान केल्याने गर्भाच्या हृदयाच्या गती व रक्तातील रासायनिक संतुलनावर परिणाम होतो कमी वजनाचे बालक व अकाली जन्माला येते. गर्भवती स्त्रीने मादक व अंमली पदार्थांचे सेवन केल्यास पांघळे बालक जन्माला येते.

६. **औषध :-**

भारतीय संस्कृतीमध्ये गर्भवती स्त्रीने औषध घेऊ नये असा यापूर्वी समज होता परंतु आजकाल गर्भावस्थेमध्ये स्त्रियांना भरपूर प्रमाणात औषधे देण्यात येते याचा गर्भाच्या वाढीवर निश्चितच परिणाम होतो गर्भावस्थेमध्ये मलेरियावर क्विनाईन, सकाळचे मळमळणे यावर थॅलीडोमाईड शिवाय स्ट्रुप्टोमाथसिन टेट्रासायक्लिन ही औषधे घेतल्यास गर्भावर खालील परिणाम झालेले दिसून येतात यामध्ये डोळ्यांचा दोष, बहिरेपणा, पाय, मुत्रमार्ग यामध्ये दोष दात व नखे पिवळी पडणे यासारखे अनिष्ट परिणाम दिसून येतात.

७. **क्ष किरण :-**

मानवाला होणाऱ्या काही रोगाचे निदान करण्यासाठी क्ष किरणांचा वापर करून फोटो काढावे लागतात गर्भवती स्त्रीच्या आजाराचे निदान करण्यासाठी क्ष किरणांच्या साहाय्याने फोटो काढल्यास त्याचा गर्भावर अनिष्ट परिणाम होतो या किरणांच्या अधिक वापरामुळे बालकामध्ये शारिरीक व मानसिक विकृती निर्माण होते. मज्जा संस्थेमध्ये विकृती मंदबुद्धीत्व व शारिरीक व्यंग, कमी वजन, बहिरेपणा, आंधळेपणा या सारख्या विकृती निर्माण होतात. असे Thompson यांना केलेल्या अभ्यासामध्ये आढळले अशा बालकांच्या जन्मपूर्व विकासावर अनेक घटकांचा परिणाम झालेला दिसून येतो.

गर्भवती स्त्रीकरीता एक दिवसाची आहारतालिका

वेळ	पदार्थाची यादी	प्रमाण
सकाळी ६ वाजता	चहा	१ कप
सकाळी ८.३० वाजता	इडल्या मध्यम आकाराच्या	३
	सांभार (भाज्या घालून)	१ वाटी
	नारळाची चटणी	२ चमचा
	लोणी	१ चमचा
	दही	१ वाटी
सकाळचे जेवण ११.३० वाजता	भात	१ वाटी
	तुरीचे वरण	१/२ वाटी
	पोळी	२
	मेथीचे आळण	३
	मुंगाची उसळ	१ वाटी
	गाजर टोमॅटो फुलकोबी	
	हिरवा कांदा कोशिंबीर फ्रुट सॅलॅड	१/४ वाटी
दुपारी ३ वाजता	चहा	१ कप
	बिस्कीट	२ नग
नाश्ता ५ वाजता	पोहे/उमपा	१ प्लेट
	ऋतुनुसार फळ	१
रात्रीचे जेवण ८.३० वाजता	मिश्र डाळीचे वरण	१/२ वाटी
	भात	१/२ वाटी

	पोळी	२ नग
	शेवग्याच्या शेंगाची भाजी	१/२ वाटी
	कोशिंबीर	१/४ वाटी
	फळ	१
रात्री १० वाजता	दुध	१ कप

निष्कर्ष

गर्भावस्था हे जिवनातील अत्यंत महत्वाची अवस्था आहे. या अवस्थेमध्ये अत्यंत काळजी घ्यावी लागते. गर्भधारण झाल्यापासून ते मुल जन्माला येईपर्यंतचा काळ होय. प्रसूतीपूर्व अवस्था आनंददायी असेल तर प्रसूती देखील सुलभ होते. गर्भावस्थामध्ये स्त्रीला स्वतःच्या पोषणासोबत बाळाचे पोषण सुध्दा करावे लागते. त्यामुळे आईला समतोल व पोषक आहार घेणे आवश्यक आहे. असे म्हटल्या जाते की सुदृढ आई सुदृढ बाळाला जन्म देई. त्यासोबतच गर्भवती स्त्रीने विश्रांती झोप, व्यायाम, तसेच जितकी पोषक घटक लागतील तितक्या पोषक घटकांचा आहारात उपयोग करावा. तसेच आरोग्य चांगले राहण्यासाठी समतोल आहार घेणे अत्यंत आवश्यक आहे. या सत्र गोष्टीची तीने काळजी घ्यावी. जर गर्भवती स्त्री सुदृढ अमेए तर जन्माला येणारी मुले आणि मुली सुदृढ होईल. आणि आपल्या देशाचा विकास होण्यास मदत होईल.

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Analysis of Physical Education and sports in India

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Introduction:

Physical Education and Sports is one of the important yardsticks and also integral part of education for any country at any point of time. Thus each country should try to set out a framework of action plan for promotion and development of Physical Education and Sports Paradoxically, sports is witnessing a spectacular boom in the media spotlight all over the world including India while it is being seriously neglected within the educational system. Physical Education act as well as the provision of resources for the nation and in the construction of evaluation system in education developments and it promotes the development physical education in a country. At present compare to earlier years and now we can come across the decline of physical education in education compare to present is one needs to overcome the hurdles and battles to improve the structure and infrastructure status in around to develop the overall discipline in physical education and sport

Physical Education in Post Globalization Era:

Despite efforts by member state to promote and develop Physical Education and Sports with international cooperation; its distinctive nature and importance to education remains a constant source of concern. Physical Education and Sports proved alarming (particularly within educational system), which given the social importance and media-coverage of sports. Its impact may be seen in the shift by Physical Education and Sport Public authorities towards high performance and high media friendly sports (at a national level, across the public and private system). A significant example in the absence of clear separation between the Ministries of Youth Affairs and Sports and Ministries of Education. The status of Physical Education and Sports convened the Physical Education World Summit in Berlin this initiative was promoted by reports revealing the increasing critical situation of Physical Education and Sports in many countries. A world wide comparative study collect data and literature for nearly 120 countries came out with following significant findings.

- a. Reduced time devoted to Physical Education in Educational Programmed.
- b. Reduced budgets plus inadequate financial, material and staff resources.
- c. The subject suffers from low status.
- d. In many countries teachers are not properly trained.
- e. Existing Physical Education guidelines are not properly applied.

Role of Physical Education & Sports:

The Physical Education and Sports preserves the vital clue that exists between Physical Education and Sports. The reciprocal guarantee highlighted the provisions of as such it is necessary to consider Physical Education and Sports as an intrinsic part of education in all schools and colleges in a country, where sports should be compulsory right from elementary school level to till college level. In fact, quality education involves the dispensing the essential requirements of life skills i.e. learning to

- (i) Self-motivation, creativity and problem solving
- (ii) Use interactive tools (communication, physical and IT)
- (iii) To join and live within sociality divers groups. All these Board based life skills are precisely what Physical Education and Sports can develop. Therefore, it goes without saying that Physical Education and Sports must be actively promoted by International organizations, state governments, local authorities. The field of education must coordinate and streamline these efforts to defend the cause of Physical Education and Sports. This will include helping to redress the balance of Physical Education and sport in Education in its drive to improve the situation of Physical Education and Sports worldwide

Physical Education & Sports:

Indian scenario: Physical Education & Sports forms an important part of educational system even when it never received the importance it deserves. Even though it is included as part of the curriculum from the early stages of education, it has never been taken seriously by the educational administrators, the academicians and the students. Physical Education is the only profession where

you talk as well as play perform. The concept of Physical Education in the mind of general public is big round, play& play and no work. Abraham Lincoln quoted in one of his address, "Sportsman is the best Ambassador of the Nation." Hence, the Physical Education Director/Teacher can also be the best Ambassador of our Institution / University. The problem of defining Physical Education is not only that the term is broad based and complex, including so many kinds of phenomena, but also it means different things to different people. Sports leads to development of total personality of the child and its fulfillment and perfection in body, mind and spirit. Even though this definition differs significantly with regards to emphasis on different aspects, they still have many common elements. Some of them may be noted as: Physical Education is a phase of total Education process. It is sum of total experience and their related responses. Experience grown and responses developed out of participation in big muscular activities. All-round development of individual" – physical, mental, social, moral is the real aim of Physical Education. It is the same as in General Education. In the Indian context, Physical Education is perhaps the only aspect of education which has not been given due attention. That is due, most probably to the fact that we have remained satisfied with what the British have handed over to us, with no sincere efforts on our part to prepare any concrete and far-reaching program for Physical Education specially suited to our conditions The School has the responsibility to see that all students achieve and maintain optimum health, not only from a moral point of view, but from the standard point that educational experience will be much more meaningful if optimum health exists. A child learns easier and better when he is in a state of good health. Even ones" values have much to do with health building and destroying activities. They understand dhow alcohol affects the driving ability, yet they drive in a state of drunkenness. They appreciate the role of regular exercise in weight control yet they do little to alter their sedentary way of living. Education and health & medical authorities have therefore, long recognized the need for a programs of Director Physical Education activities in school curriculum. It is during the formative and rapidly growing period of elementary school-age that foundation of proper habits, attitude sand appreciations toward all physical activities, including play is implied and desirable citizenship traits acquired, so that in adulthood he will be equipped with the knowledge, sound thinking processes, physical stamina and emotional maturity to live effectively in an ever changing and highly complex society. In that respect, teachers bear a major responsibility in answering that challenge effectively.

Need of Physical Education & Sports:

To study Physical Education and sports is not merely to discuss performance, technique or records journalistic-ally but to look at some of the implicit assumptions held by the general population about Physical Education and Sports. Despite the significance of sports, it has been primarily vehicle of „escape“ more than an avenue of education. A sport has been viewed as a distraction from the trials of everyday life. Ask some friends why they are involved in sports. The response will probably have something to do with "fun" or "enjoyment".

Interpretation:

Every College / University should have an Elective Subject of Physical Education, if not compulsory, where 60% stress should be given to theory and 40% to practical. Another viewpoint is that all the first year students should undergo a minimum Physical Education programs like National Physical Fitness Test, otherwise they will not be given the degree. We should have colleges of Physical Education with 4 to 5 years degree course, like Indian Institute of Physical Education and Sports Science (IIPES). Physical Education and Sports are seen not merely as a playground but also as a laboratory in which the theories of each discipline may be tested and/or as a phenomenon whose worth in essvalue, and effect on people and society must be continually scrutinized.

Conclusions:

Young people are the assets of any country in the world, with highest under 25 population in the world India stands to gain with more work & output with the Human Resources available, but then preserving the Human Resource & maintaining the longitivity of these young ones is a challenge to India, one of the fastest developing nation of the world. Therefore, to enable an individual to lead happy, enjoyable and healthy life as a member of society, he should regularly engage in games and sports and different exercise programmers to ensure development of Physical Fitness and learn skills in sports and games, which havea carryover value. Society on the other hand should provide enough opportunities to its members so that they may engage themselves in activities of their own choice and thus develop or maintain the level of Physical Fitness. Unless there is improvement in the „General Standard of Health“, excellence in sports cannot improve. Physical Education and Sports activities in

educational institution should aim at „Health Related “and „Performance Related“ areas so as to ensure „enhancement of Performance in competitive sports“. Physical Education thus consists in promoting a systematic all-round development of human body by scientific technique and thereby maintaining extraordinary Physical Fitness to achieve one’s cherished goals in life. Hence any organization of Physical Education should start with developing a positive attitude and self-confidence among Physical Educators themselves and make them feel, Physical Education need not exist in the periphery of the schools/ colleges, but should extend itself to the classrooms and become the focus or central point of Educational System.

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Comparative Study Of Physiological Parameters Among Korfball And Dropball Players

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Abstract:

The main purpose of the study was to find out the comparison of physiological parameters among korfball and drop ball players. The data collected quantitatively on two variables i.e. Hemoglobin and Vital Capacity. Forty (40) subjects were selected for this study twenty (20) subjects were taken from korfball players while the remaining twenty (20) subjects were taken from drop ball players from intercollegiate tournament of Sant Gadge Baba Amravati University, Amravati by applying random sampling method. The data were collected on physiological parameters, after that collected data was put in Microsoft excel to develop master chart and then 't' test was used for this statistical treatment. The subjects were selected by using purposive sampling method. To test the hypothesis, the level of significant was set at 0.05 level of confidence which was considered adequate and reliable for the purpose of this study. It was hypothesized that there was significant difference in physiological parameters among korfball and drop ball players.

Keywords: Physiological Parameters, Hemoglobin, Vital Capacity, Korfball and Dropball Players

Introduction:

Physiological systems are highly adaptable to exercise. Each task has major physiological components fitness for the task required for effective functioning of the appropriate system. Involvement in systematic programme of training brings about desirable changes in the physical and physiological ability which enhances the athlete's performance in his sports. It is a known fact that adding regular physical activity to one's daily routine will improve health and well-being. Regular physical activity maintained body's physiological and physical fitness. Being physically active has also been proven to help build healthy bones, joints, and muscles and helps to perform better performance in competitions.

Physiology is the study of the functioning of the internal organs of human body. The body is made up of many tissues and organs, each having its own particular function to perform and the physiological variables may be defined as those variables which are directly limited with various physiological system and which may be voluntary or in voluntary such pulse rate, blood pressure, maximum breath holding capacity etc.

The physiological parameters seems to play a very important role in the modern competitive sports in production of more excellent performance, because competitions are organized more frequently than ever the sum sets at a place at a particular time it may rise at other place, moreover because of physiological parameters and difference in time the athletes the same time at another place. It is well known that the individual performance in any sports activities follows diurnal physiological parameters. Pattern method may be derived to condition the athletes to produce peak performance with change in diurnal physiological parameters.

With training and conditioning the heart become more efficient and is able to circulate more blood while bearing less frequently for a standard amount of work, the heart beats slowly as the training period proceeds. The heart rate changes indicate a decreasing load on the cardiovascular adaptation to exercise.

Hemoglobin:

Haemoglobin is a complex compound found in Red Blood Cells that contain iron (haemo) and protein (globin) and is capable of combining with oxygen.

Haemoglobin is basically organic material with a very interested organic structure known as haeme. The interesting thing about this structure is that it contains iron and this iron is capable of combining with oxygen to form ox haemoglobin in Red Blood Cells by means of this function oxygen is carried to the tissues from the lungs.

It is interesting to note that the respiratory segment throughout biological kingdom almost all belongs to the metaloprphyrin class like haemoglobin exercise excitement adrenalin injection to crease the amount of haemoglobin.

Vital Capacity:

Vital capacity is the total amounts of air that can be forcibly expire after a complete inspiration has been used frequently as a measure of adequacy of the respiratory system. Although it

measures the approximately capacity of the lungs, recent information indicates it is of little use in predicting ability to perform tasks of endurance. Obviously other factors are more important. For example, any limitations of the oxygen delivery system to the cells will reduce the effectiveness of the delivery; regardless of vital capacity is the ability to take in more air per unit of time with fewer, but deeper inspiration, thus prolonging the onset of fatigue in the respiratory muscle.

Consistent overloading of the respiratory system increases the strength and endurance of the respiratory muscles and causes the interior volumes of lungs to the expansion surface are where gases may be transformed to and from the circulatory system. This results in a slower breathing rate, during rest and less increase in berthing rate during heavy work.

Methodology

Sources of data:

The present researcher was taken the male subjects for the study. The sources from inter-collegiate korfbal and drop ball players of Sant Gadge Baba Amravati University, Amravati.

Selection of Subjects:

Fourty (40) subjects were selected for the collection of data which include twenty (20) as korfbal players and twenty (20) as drop ball players from inter-collegiate of Sant Gadge Baba Amravati University, Amravati.

Sampling Method:

The subjects were selected by using purposive sampling method.

Selection of Tests:

The test items were selected for this study after thorough review of literature as well as consultation with experts, physical education professionals, research supervisor and sports experts which were appropriate and ideal for the variables. The criterion variables are presented in the table-1.

Table-1
Comparison of Hemoglobin Among Korfbal and Drop Ball Players

Group	Mean	S.D.	S.E.	M.D.	O.T.	T.T.
Korfbal Players	23.16	6.12	2.80	1.82	0.64	2.00
Drop ball Players	21.34	4.17				

Table No.1 reveals that there is difference between means of korfbal and drop ball players because mean of korfbal is 23.16 which is greater than the mean of drop ball players which is 21.34 and therefore mean difference is 1.82 to check the significant difference between korfbal and drop ball players data is again analyzed by applying 't' test. Before applying 't' test, standard deviation is calculated between korfbal and drop ball players which is 6.12 and 4.17 respectively and then the calculated value of 't' is found as 0.64, is less than tabulated 't' which is 2.00 at 0.05 level of significance. Hence the hypothesis which was giving by the researcher is rejected.

Graph-1

Graphically Representation of Hemoglobin among Korfbal and Drop Ball Players

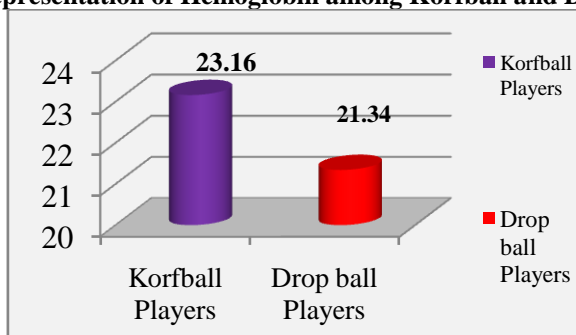
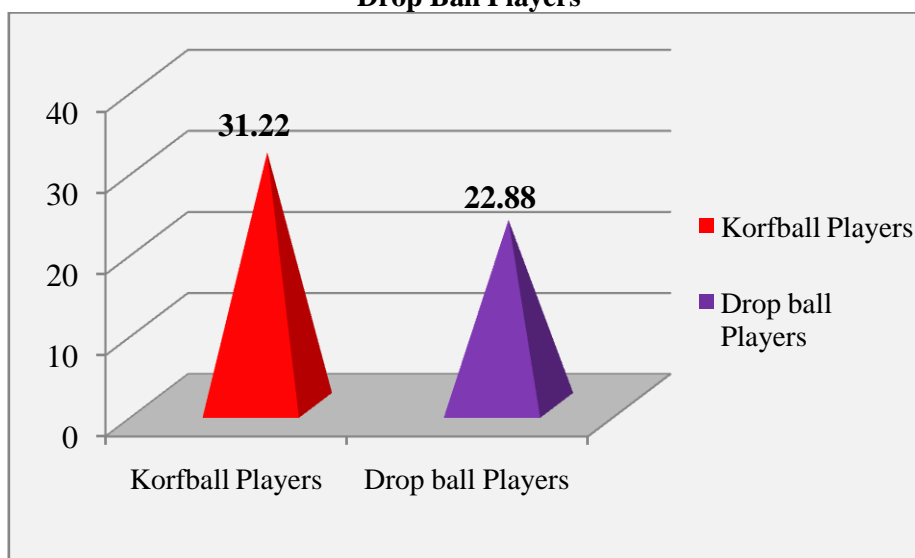


Table-2
Comparison of Vital Capacity Between Korfball and Drop Ball Players

Group	Mean	S.D	S.E	M.D	O.T	T.T
Korfball Players	31.22	7.24	3.45	8.34	2.41	2.00
Drop ball Players	22.88	3.72				

Table No.2 reveals that there is difference between means of korfball and drop ball players because mean of korfball is 31.22 which is greater than the mean of drop ball players which is 22.88 and therefore mean difference is 3.45 to check the significant difference between korfball and drop ball players data is again analyzed by applying 't' test. Before applying 't' test, standard deviation is calculated between korfball and drop ball players which is 7.24 and 3.72 respectively and then the calculated value of 't' is found as 2.41, is greater than tabulated 't' which is 2.00 at 0.05 level of significance. Hence the hypothesis which was giving by the researcher is accepted.

Graph-1
Graphically Representation of Vital Capacity among Korfball and Drop Ball Players



Conclusion:

Within the limitation of the present study and on the basis of the findings, the following conclusions were drawn.

The researcher the comparison of physiological parameters (Hemoglobin and Vital Capacity) among korfball and drop ball players, it is concluded that there is a significant difference of physiological parameters among vital capacity of korfball and drop ball players and also there is insignificant difference between hemoglobin among korfball and drop ball players. Hence the researcher's pre assumed hypothesis was partially accepted.

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The Influence Of Anthropometric Parameters On Volleyball Players**Ashwini Venkanagouda Patil¹**¹Research Scholar, Department of physical education and sports sciences, Karnataka State Women's University, Vijayapura, Karnataka, India-586108.**Dr. Hanumanthayya Pujari²**²Assistant Professor, Department of physical education and sports sciences, Karnataka State Women's University, Vijayapura, Karnataka, India-586108.**Abstract**

Due to the fact that physical education represent a vital element of volleyball players, the purpose is to convey a strong conception in players regarding the anthropometric parameters for a successful professional sports career. This paper analyse the characteristics of body proportions and fitness of players. This study also indicate that proportional ratios influence the fitness characteristics of players.

Keywords: Volleyball, anthropometric.

Introduction

Physical fitness and anthropometric measurements gives important information on optimal range of body size, body shape and health condition [1]. The growth of each segment of human body depends on body proportions. As a volleyball player will be characterized by short and frequent dynamic activities such as a jump, ball play and dive, it is very important for a player to maintain a good anthropometric profile [2, 3]. Good height, lean body and low fat percentage are indications of a good anthropometric profile [4].

The objective of the present study is to analyse different anthropometric parameters, the physical fitness condition and the body proportional ratio, and finally, the influence of all these on volleyball players.

Experimentation Details And Discussion

The student players of DYSS sports hostel, Bangalore (high school and PUC category-men) were considered for our study. All the players were examined with normal reach, jump reach (in metres) in addition to their age, height and weight. The body mass index (BMI) was derived based on the data collected. All the above anthropometric measurements were taken as per the rules and regulations. Table 1 shows the anthropometric measurements of all 10 players.

Table 1: Anthropometric measurements of players.

Players No.	Age (yrs)	Height (ft)	Weight (kg)	Normal reach (metres)	Jump reach (metres)	Gain in Reach (metres)	BMI
Player 1	16	5'7"	80	2.24	2.8	0.56	26.75
Player 2	16	5'7"	80	2.25	2.55	0.30	26.75
Player 3	17	5'6"	79	2.2	2.55	0.35	27.33
Player 4	16	5'8"	76	2.26	2.84	0.58	24.28
Player 5	18	5'7"	74	2.46	2.81	0.35	24.74
Player 6	16	5'8"	77	2.21	2.86	0.65	24.6
Player 7	17	5'7"	75	2.35	2.83	0.48	25.08
Player 8	16	5'6"	75	2.14	2.61	0.47	25.95
Player 9	17	5'8"	81	2.36	2.86	0.5	25.87
Player 10	18	5'7"	80	2.32	2.63	0.31	26.75

Based on the above observations, the gain in reach is highest for the players with less BMI. This indicates, lesser BMI more will be jump reach. Player no. 4 and no. 6 are having maximum gain in reach when compared to all other players. This also indicate that the optimal BMI will be very much crucial for the game as a volleyball player.

Conclusion

The anthropometric measurements has a significant influence on the performance of volleyball players. Anthropometric profile of a player defines the professional sport career and also leading to a healthy life. Awareness of all anthropometric parameters is the prime job of a player. Adapting and maintaining those parameters will definitely qualify for a professional volleyball player.

Acknowledgements

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A Comparative Study - Anxiety among Junior and Senior Players**Atul Bijwe**Director of Physical Education
Government Vidarbha Institute
of Science & Humanities,
Amravati**Abstract:**

The purpose of this study was to compare the anxiety between junior and senior players. The study was conducted on hundred samples, consisting of fifty junior school state level players and fifty senior inter university players. Only Basketball Cricket, Handball, Hockey, Kabaddi, Softball and Volleyball Men players were selected. The sample consists of fifty junior state players of Amravati districts & fifty senior inter university players of Amravati, Akola, Yavatmal, Washim districts. Random Sampling Technique was in use to select the subjects. Anxiety was obtained by administering Sinha's Comprehensive Anxiety Test. The data collected through aforesaid tests were analyzed with respect to anxiety. "t" test was applied to compute the significances among two groups. The significance of data was judge at 0.05 levels. The result of the study indicates that anxiety of junior and senior players were different.

Introduction:

Anxiety is a complex emotional phenomenon. It is reflected in the negative state of disturbed feeling which warns the athlete to find some ways to meet a situation. It is found in his unusual responses to situations. In an anxiety ridden state of mind, he is now incapable of doing things which earlier were fully under his control. It has startlingly been found influencing future events. An overanxious person is not restless over the things in hand (here and how), but he is more concerned about the future happenings which bother him. This condition then becomes operative in him. It changes his state of mind. Anxiety describes the individual's level of emotionality. Anxiety and arousal are relates because at the higher levels of arousal we considerably have more emotionality than at the lower levels. Since anxiety is an inferred emotional state of the organism and cannot be directly observed, investigations of anxiety rely heavily on having the individual report her own emotional states under various stress conditions. It has been observed that anxiety is a physiological response to a real imagined threat. It is a intricate emotional state characterized by a general fear. Feelings of rejection and insecurity are usually a part of anxiety. A certain amount of anxiety is desired for peak performance.

Methodology:

Objectives of the study: The objectives of the study are stated as follows:

- 1) To study the anxiety among junior and senior Men players.
- 2) To compare the anxiety among junior and senior Men players.

Hypothesis :

There would be no significant difference between junior and senior players on anxiety. Selection of Sample: The sample consists of fifty junior state players of Amravati districts & fifty senior inter university players of Amravati, Akola, Yavatmal, Washim districts. The subjects were drawn from the colleges affiliated to Sant Gadge Baba Amravati University. Random Sampling Technique was in use to select the subjects. The data was collected from senior players during inter university coaching camp and junior players during school state level sports tournaments. The present study is based on survey method.

Tools used : Sinha's Comprehensive Anxiety Test has been taken to assess the anxiety. This questionnaire consisted of ninety statements. STATISTICS USED: Student's t test has been applied to find out the significant differences among two groups at 0.05 levels of significance. The collected data were tabulated to find out the difference of anxiety among two groups. RESULTS AND DISCUSSION: Table - 1 Means, SDs and T-ratio of anxiety between Junior and Senior Men players.

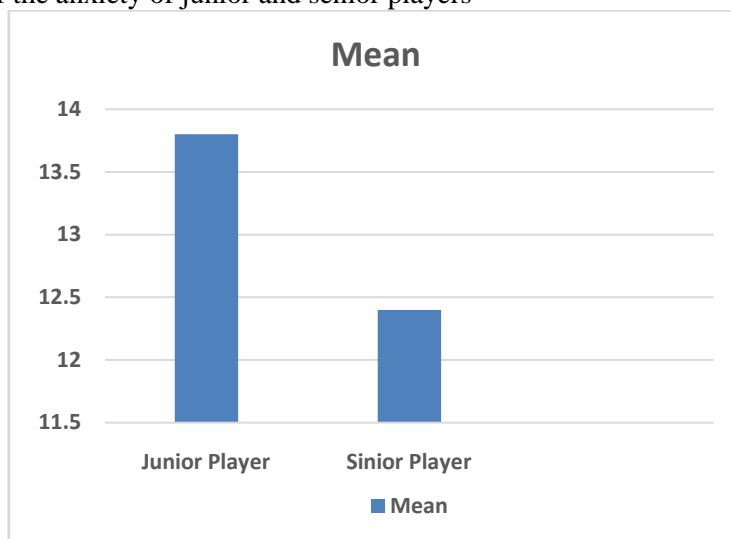
Variable	Group	N	Mean	SD	T-ratio
	Junior	100	13.8	2.30	4.31*
	Senior	100	12.4	2.30	

* Significant at 0.05 levels.

The means of anxiety for junior was 13.8 and senior was 12.4. The calculation of mean, standard deviation and T ratio of junior and senior on anxiety are presented in table 1. Table 1 reveals that

there is significance between junior and senior Men players on anxiety. Thus it may be concluded that anxiety of both junior and senior Men players are different.

Fig.1: The mean of the anxiety of junior and senior players



The means of anxiety of junior and senior players was 13.8 and 12.4 respectively. The T ratio obtained is significant at 0.05 level of confidence. Hence the hypothesis that senior and junior Mens players have not differ on anxiety was rejected. Senior Men players have low anxiety than junior Men players.

Conclusions :

On the basis of the study the following conclusions were drawn: 1. Senior Men players were less anxiety than junior Men players. 2. There was significant difference between junior and senior Men players on anxiety.

Recommendations:

1. While giving psychological training along with yoga and meditation, special attention must be given on anxiety
2. Sports Competition Anxiety help in improving performance.
3. During competition players are mentally anxious and this affects them in handling performance. To avoid such effects players prepared psychologically.

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A Comparative Study of Sports Achievement Motivation between Wrestlers and Boxers

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Abstract

Achievement motivation is relatively a new concept in the field of motivation. The basis for achievement motivation is the motive to be achieved or clearly 'achievement motive'. The main objective of this study was to compare the sports achievement motivation level among wrestlers and boxers. To achieve this objective 40 male (Wrestlers=20 and Boxers=20) were selected from various colleges of Jammu university as the subjects for this study. The data was collected on all the subjects by administering the M.L. Kamlesh Sports Achievement Motivation Questionnaire (SAMT). SAMT consist of 20 Multiple Choice Questions of 40 marks. Each Question carries two (2) marks for correct answer and zero (0) mark for wrong answer. The age ranged between 18-25 years. Independent t-test was used as statistical technique for comparative analysis and the level of significant was set at 0.05 level. The results of the study show that there was no significant difference between wrestlers and boxers. But while comparing the mean values between the two it has been observed that boxers have exhibited significantly better sports achievement motivation than wrestlers.

Introduction

Motivation, in its psychological sense, is concerned with inculcation and stimulation of the learner's interest in the learning activities. It is believed that word motivation has been derived from the Latin word mover, which implies to move or to bring changes. When it is said that someone is being motivated, it simple means that the individual has an inner instinct which urges him to achieve the set objective efficiently. From the coach or teacher's side, it is a process which inspire a player to perform the activity with utmost capabilities and efficiently. Motivation helps in determining the behaviour of the player. Achievement motive comes into picture when an individual knows that his performance will be strictly evaluated. Hence this motive may be considered as a deposition to approach success even after a hard struggle and cut- throat competition. The achievement goal theory (Nicholas, 1989) was used to examine achievement thoughts and behaviours among sports professionals. This theory aimed to find suitable strategies to increase achievement behaviours among athletes. Nicholas (1989) defined two orthogonal goal orientations based on social influence: task orientation and ego orientation. Task oriented people were focused on personal improvement and excellence. Nicholls (1983) ascertained that, "in task involvement, learning is more inherently valuable, meaningful, or satisfying, and attention is focused on the task and strategies needed to master it rather than on the self". Ego oriented individuals' worked in competition with others and desired to be better than the rest. Summarizing the ego orientated individuals, Nicholas (1983) commented "learning is a means to the end of looking smart or avoiding looking stupid and attention is focused on the self". It was found that athletes who had high task and ego orientations possessed highly adaptive motivation strategies

Many researchers had done related to sports achievement motivation. It attempts to measure what an individual has learned – his or her present level of performance. Sport achievement tests are particularly helpful in determining individual or group status in sports settings. Singh et al. (2010) studied to compare the sports achievement motivation of male and female north zone badminton players. Results indicated that no significant difference was found between male and female north zone badminton players in their sports achievement motivation at 0.05 level of confidence. Pooja, Dureha et al (2010) studied on comparative study of incentive motivation, achievement motivation and anxiety level between national and international hockey players. The result of the study showed insignificant difference in incentive motivation, achievement motivation, state anxiety and trait anxiety between national and international hockey players and significant difference was found in sports competition anxiety.

Methodology

Sources of data

The source of data for the present study was the 20 wrestlers and 20 boxers from the various colleges of Jammu University.

Selection of subjects

Keeping in view the objective of the study, 40 male inter college wrestler and boxer were selected as the subjects for the study. The subjects were selected by simple random sampling method from various colleges of Jammu University. The age of the subject ranged between 18-25 years.

Tools of the study and criterion measure

The tool used for achieving the objectives of the study was sports achievement motivation test constructed by Dr. M. L. Kamlesh (1990). The test consists of twenty questions which can be completed by choosing either of the two proposed answers. Each Question carries two (2) marks for correct answer and zero (0) mark for wrong answer.

Statistical Procedure

The data thus collected were given to statistical treatment computing t-ratio to find out the difference if any between the Wrestlers and Boxers in relation to sports achievement motivation. The obtained results have been presented in the following tables. The level of significance was set at 5%.

Table 1: Indicating the Mean Difference of Sports Achievement Motivation between Wrestlers and Boxers.

Variable	Group	N	Mean	S.D	Std. Error
Sports achievement motivation	Wrestlers	20	28.30	2.47	0.552
	Boxers	20	29.15	5.45	1.218

Table 1 presents the results of variable sports achievement motivation between Wrestlers and Boxers. The descriptive statistics shows the Mean and S.D. values of Wrestlers as 28.30 and 2.47 respectively. However, Boxers had Mean and S.D. values as 29.15 and 5.45 respectively, whereas standard deviation error was found 0.552 and 1.218 respectively.

Table 2: Comparison of Sports Achievement Motivation between Wrestlers and Boxers.

Variable	Mean difference	Std. Error Difference	df	t- value
Sports achievement motivation	0.85	2.97	38	0.635

Level of significant 0.05, (38) 2.024

Table 2 shows that no significant difference was found between Wrestlers and Boxers in comparison to sports achievement motivation, since t- value of 0.635 was lower than the tabulated value of 2.024 with 38 df at 0.05 level of significant.

Discussion:

It is evident from the above findings that no significant differences have been observed on the variable sports achievement motivation between Wrestlers and Boxers. When comparing the mean values of both the groups, it has been found that Boxers have performed better on the said variable. Khan et al. (2011) were conducted a study to find out the relationship between Anxiety and Motivation of intervarsity Badminton players. The total sample consisted of twenty players age ranged from 17 to 25 years. It was found that significant negative relationship between Achievement Motivation and Anxiety. Dureha *et al.* (2010) studied to compare the status of national and international hockey players on the selected psychological variables. As shown by the result of the study, insignificant difference was found in incentive motivation, achievement motivation, state anxiety and trait anxiety between national and international hockey players and significant difference was found in sports competition anxiety.

Conclusion

It was concluded from the above findings that no significant differences were observed between Wrestlers and Boxers on the variable sports achievement motivation. Boxers were found to be significantly better as compared to their counterpart Wrestlers when Mean score is compared.

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The Importance Of Yoga For Sports Person

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Sports is not purely a physiological phenomenon but a complex interplay of the mind and body. It is now becoming more and more competitive and has also become a career with an emphasis on monetary gains and the desire to win at any cost.

Therefore, it is important to find solutions to the changing sports scene of today. A sports person needs four basic qualities: speed, skill, strength and stamina. To achieve these in profession sports, the daily life of a sports person calls for discipline in training, a balanced diet, a balanced lifestyle and an inner focus and determination.

Yoga is a holistick system teaching skill which many sports person seek, such as control over the mind , control over the body, good breathing habits, relaxation under pressure, highly focus on the present.

Asanas, pranayama and meditation unite the forces of body and mind so that they are not at odds with one another and they help to develop and concentration.

How yoga helps a sports person

- Yoga is useful for all types of spots to help prevent injuries. One gets extra agility which helps to avoid damages, provides more strength and improves a player`s ability to react to a situation.
- Yoga helps a sports person to feel and understand the body processes more accurately, thereby learning what the body needs. By understanding this, an athlete can work on areas that need attention with confidence.
- In competitions, athletes at all ability levels tend to have a fear of losing, of another competitors, or of developing mental deterrents to excellent performance. Yoga trains us to be our best single moment, to hold ourselves at our highest standard and to go beyond our preconceived limitations.
- Yoga postures work all around a limb and help to knit the muscle fibers thus building resilience to injury. By anticipating areas on the body that are subject to stress, one can use yoga effectively to pre-strengthen areas of concern.
- Due to long term sports training, muscular imbalance can develop in the body which can lead to damage and injury. Yoga`s practices are ideal in this respect because integration, balance and harmony are keywords of yoga. These practices correct the one-sided effect of training by promoting general harmonious development of the body and by improving the whole physical system.
- Yoga practices offer the natural remedy because asanas are based on the gentle stretching of muscles, which includes relaxation and increases the blood supply. These also release residual tension and speed up regeneration. It is a natural counterbalance to the muscular effort of training and competing.
- Sport`s training tends to be very intensive over an extended period of time. This again can lead to a form of imbalance where muscles or the body as a whole becomes weak through over exertion. Regeneration is a remedial process for regaining strength and for the prevention of injuries. Yoga regeneration exercise are based on the principle that after contracting for a specific tome period in an isometric movement against specific resistance, muscles will release and relax. But all rtis would be effective only if done consciously.

Yogic practices

- The Preparatory Exercises
- Surya Namaskara
- Backward and Forward Bending Asanas
- Inverted and Balancing Asanas
- Pranayama

- Relaxation and Meditation Techniques
- Shatkarmas

The Preparatory Exercise

Preparatory exercises remove stiffness from the joints and help the muscles to become flexible. Problems in the knee joints, hip joints, ankle joints, shoulder joints and wrist joints can all be remedied by these asanas thus minimizing the injuries.

Backward and forward bending asanas

- Backward and forward bending asanas increase the strength and flexibility of the spine. The spine is responsible for posture, free flow of energy, nervous activities and body reflexes. Balance of the whole body depends on the power and flexibility of the spine and adjacent muscles. Hence backward and forward bending followed by one or two twisting asanas will relax the spine and give the feeling of alertness.
- Psychologically, backward bending asanas prepare the players to face any situation with courage and optimism, forward bends help to let go and go with the flow and twists gently squeeze out hesitation and uncertainty.

Surya namaskara

This is a complete practice in itself. It is an effective way of loosening up, stretching, massaging and toning all the joints, muscles and internal organs of the body. It stimulates and balances all systems of the body.

Invented Asanas

Invented asanas encourage a rich supply of blood flow to the brain and reverse the effect of gravity in the body. During the practice of an inverted asanas, the breathe becomes slow and deep, maximizing the exchange of carbon dioxide and oxygen, which encourages correct respiration.

Balancing asanas

These induce physical balance by stilling unconscious movement. They develop the brain centres that control the body functions in motion thus developing the connection between the body and mind.

Pranayama

Pranayama or breathing practices are one of the most effective means of increasing lungs capacity, energy and stamina. It also helps control our involuntary muscle, enhances concentration and balances emotions.

- **Bhramari pranayama and ujjayi pranayama** can be used before any sporting event to induce relaxation and reduce mental stress thus bringing calmness and quietness of mind.
- **Bhastrika pranayama** generates hit and vitality and raises the natural energy level. It makes the second wind more accessible in sports after near-exhaustion.
- **Nadi Shodhan Pranayama** also increases lungs capacity as well as being the practice for balancing the pranic energy by stimulating both hemispheres of the brain equally.

Shatakarmas

Niti, kunjaj, laghoo shankhprakashalana and trataka are four of the six cleansing practices which are consider important for sports person.

Neti

Neti cleans and clears the nasal passages giving clarity of mind and sharp reactions. It helping balance both hemispheres of the brains.

Kunjaj

It can induce confidence in players, so that they can express themselves properly and give their best without holding back through fear or anxiety.

Laghoo shankhprakashalana

These practice induce freshness of mind and body. It keeps the digestive system functioning properly.

Trataka

Trataka is concentrated gazing at one point. All games require the ability to develop one pointed concentration and ousness.

Yoga-Nidra

Yoga-nidra is a systematic method for inducing complete physical, mental ad mental relaxation. It works at three levels simultaneously- the conscious, subconscious and unconscious. Due to the death of relaxation, the level of awareness and focus increases.

Conclusion

Sports are highly demanding and competitive and yoga moves in the opposite direction with its apparent emphasis on a relax approach and detached state of mind. However, the state of mind and physical preparedness that yoga brings is exactly the same state that the most successful players speak of when at the peak of their performance. Who can not perform at his best while being relaxed, ready and confident. And who can not gracefully accept victory or defeat if his body, mind and spirit has the equanimity of a yogi.

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The Effect of Pranayama on Systolic Blood Pressure of Taekwondo Player

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Abstract:-

To evaluate the efficiency of 06 weeks Pranayama on Systolic Blood Pressure of Taekwondo Player. pre-test and post- test randomized group design were undertaken for the present study which consist of an Experimental group and control group. Equal number of subjects (N=25) were assigned randomly to both groups. The experimental group was exposed to 06 weeks Pranayama, whereas, no treatment was given to control group. For the purpose of the present research work a total of (N= 50) Taekwondo Players were randomly selected for the present research work. The level of significance to test the obtained 't'-ratio was fixed at 0.05 level of confidence, which was considered to be appropriate in review of the fact that highly sophisticated instruments and devices were not used for more stringent level of significance.

By Using 't'-ratio the finding of the study showed that there was no significant difference in the pre-test and post-test scores of experimental group in Systolic Blood Pressure as a result of 06 weeks Pranayama training practices. Whereas the finding of the study reveals that there is no significant difference in Systolic Blood Pressure in the pre-test and post-test of experimental group and No significant difference in control Group. whereas, no treatment was given to control group.

Keyword :- Pranayama Programme, Taekwondo , Systolic Blood Pressure

Introduction:-

Sport today is worldwide phenomena on physical activity participation in sport and competition is a require of present society as a result one section of a society is really engaged in exploring various aspects of sports. Every physical activity has different effect on the individual as a result lead to different type of adaptation different activity of sports there for to develop different physical, physiological, psychological and social capacity and abilities of sportsman.

Taekwondo is one of the most systematic and scientific Korean traditional martial arts, that teaches more than physical fighting skills. It is a discipline that shows ways of enhancing our spirit and life through training our body and mind. Today, it has become a global sport that has gained an international reputation, and stands among the official games in the Olympics. First, Taekwondo is the right way of using Tae and Kwon 'fists and feet,' or all the parts of the body that are represented by fists and feet. Second, it is a way to control or calm down fights and keep the peace. This concept comes from the meaning of Tae Kwon 'to put fists under control' (or 'to step on fists'). Thus Taekwondo means "the right way of using all parts of the body to stop fights and help to build a better and more peaceful world."

"Yoga is an ancient philosophical and religious tradition thought to have originated in India in 5000 BC. It has been incorporated into modern medicine during the few decades because of increasing incidence of diseases of modern civilization such as obesity, hypertension, coronary artery diseases, and diabetes mellitus, which are rooted in faulty lifestyle and psychological stress. Yoga is the best lifestyle modification, which aims to attain the unity of mind, body and spirit through asanas (exercise), pranayama (breathing), and meditation."

"Breath is a dynamic bridge between the body and mind. Hence, life experiences can distort breathing pattern. Pranayama is the art of prolongation and control of breath helps in bringing conscious awareness to breathing and the reshaping of breathing habits and patterns."

Statement of the problem:-

The Effect of Pranayama on Systolic Blood Pressure of Taekwondo Player.

Purpose of the study:-

1. The purpose of the study is to improve of Systolic Blood Pressure.
2. The purpose of the study is to find out the level of Systolic Blood Pressure.
3. To study the importance of Systolic Blood Pressure.

Significance of the study:-

1. The result of the present study would be helpful to the Physical Education Teachers and coaches and other professionals, in order to understand the importance Systolic Blood Pressure.
2. The study will help to know the significance of Systolic Blood Pressure.

3. The study may provide an opportunity to assess the Systolic Blood Pressure of Taekwondo players.

Hypothesis:- On the basis of literature reviewed, available findings, experts opinion and scholar’s own understanding of the problem it was hypothesized that there were significant effect of specific training program on Systolic Blood Pressure of Taekwondo Player.

Selection of the samples:- Hundred Taekwondo players was randomly selected as subjects for the purpose of this study all the subjects participated in the regular taekwondo activities in the taekwondo Interuniversity Tournament. The age of the subjects ranged between 18 to 28 years.

Criterion measure :- Systolic Blood Pressure

Data Collection:-

Researcher first took the test of Systolic Blood Pressure then Gave the 6 Weeks Specific Plyometric Training to Intercollegiate Taekwondo players then again took the Test of Systolic Blood Pressure

Data Analysis :-

Table No:- 1

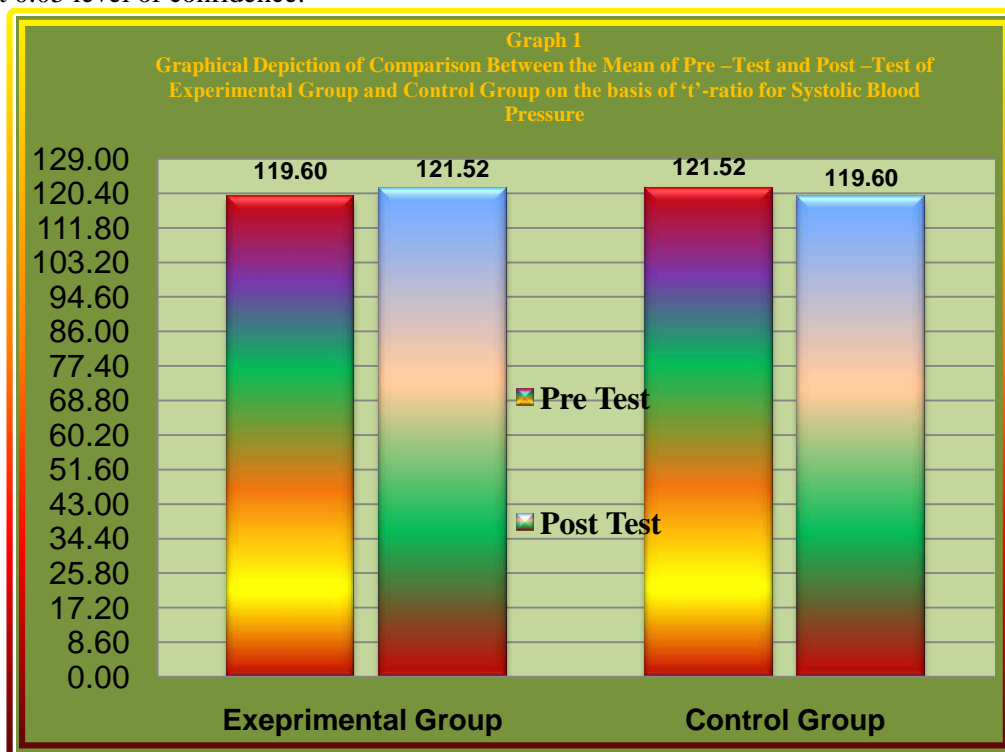
Comparison Between the means of pre-test and Post Test of Control Group and Experimental on the basis of ‘t’-ratio for Systolic Blood Pressure

Item	M1	M2	MD	‘t’-Ration	Required ‘t’-Ration
Systolic Blood Pressure Control Group	121.52	119.60	1.92	1.855	1.671
Systolic Blood Pressure Experimental Group	119.60	121.5200	1.92	1.855*	1.671

M_1 = Mean of Pre-Test , M_2 = Mean of Post Test

Discussion:-Table1 Indicates that the mean for Systolic blood Pressure of pre- test and post- test of control group 121.52 and 119.60 respectively. Similarly, examination of the same table reveals that there is no significant difference in the mean of Systolic blood Pressure of pre- test and post- test scores of control group as the obtained ‘t’-ratio value 1.855 is much more than the required ‘t’-ratio value 1.671 at 0.05 level of confidence.

The mean for Systolic blood Pressure of pre- test and post- test of Experimental group 119.60 and 121.5200 respectively . Similarly, examination of the same table reveals that there is no significant difference in the mean of Systolic blood Pressure of pre- test and post-test scores of Experimental group as the obtained ‘t’-ratio value 1.855 is much less than the required ‘t’-ratio value 1.671 at 0.05 level of confidence.



Conclusions:-

- 1) In Systolic blood Pressure no significant difference was found between Pre-test and Post- test of Control group, As a result no treatment was given to control group whereas, the post-test scores were found to be less than that of pre-test scores.
- 2) No Significant difference was found in the Systolic blood Pressure of Experimental Group. As a result practices of different Plyometric Training for 06weeks as the post-test scores were found to be more than that of pre-test scores
- 3) It Means no effect of Plyometric training on the Systolic blood Pressure of Taekwondo Player.

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Effects of Yoga Practice on systolic and diastolic blood pressure

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Abstract:

The purpose of the study was to find out the effects of yoga on physiological parameters from University of Kashmir students. Total number of subjects was taken as 20 from the University of Kashmir, from the department of physical education and sports. The physiological parameter blood pressure (systolic and diastolic BP) taken as variable. Pre- and post test was applied by the researcher for the collection of the data. One month of yoga training was given to the subjects and post test was applied to see the difference on the physiological parameters. The physiological parameters were assessed by measuring blood pressure before and after one month of the yoga training. The subjects were randomly selected for the study. To measure the blood pressure the sphygmomanometer was used, pulse Rate was recorded after a rest for 30 minutes in right radial artery by Palpatory method as usual but not taken as a variable. For statistical analysis and Interpretation of data 't' test was applied at 0.05 level of significance. The findings of the present study reveals that there were significant difference found in reduction in the Systolic Blood Pressure and diastolic Blood Pressure after one (1) month of yoga practice. On the basis of the obtained result, it has been observed that yoga practice can be used as an intervention in ageing persons to reduce the morbidity and mortality from cardiovascular diseases. It reduces the high blood pressure, pulse rate and heart rate plays an important role in healthy impact on the life style of a man.

Keywords: Yoga, physiological parameter, blood pressure (SBP, DBP)

Introduction

The physical exercises (*asanas*) may increase patient's physical flexibility, coordination, and strength, while the breathing practices and meditation may calm and focus the mind to develop greater awareness and diminish anxiety (Kirkwood,2005), and thus result in higher quality of life. Other beneficial effects might involve a reduction of distress, blood pressure, and improvements in resilience, mood, and metabolic regulation (Yang, 2007). Khalsa stated that a majority of the research on yoga as a therapeutic intervention was conducted in India and a significant fraction of these were published in Indian journals, some of which are difficult to acquire for Western clinicians and researchers (Khalsa,2004).

Yoga is the science of right living and as such, is intended to be incorporated in daily life. It works on all aspects of the person: the physical, vital, mental, emotional, psychic and spiritual (Swami, 1999). The Sanskrit term yoga is the most frequently interpreted as the "union" of the individual self (*jiva-atma*) with the supreme self (*parama-atma*). The ancient definition is at home in Vedanta, the dominant branch of Hindu philosophy, which also greatly influenced the majority of yoga schools. Vedanta proper originated with the ancient esoteric scripture known as the *Upanishads*, which first taught the "inner ritual" of meditation upon and absorption into the unitary ground of all existence. However there are non-dual- hymns of Vedas (Georg, 2002). According to Swami satyanand saraswathi "yoga is not an ancient myth buried in oblivion. It is the most valuable inheritance of the present. It is the essential need of today and the culture of tomorrow (1999)." Joshi (1986) says that the breaths of every one of us are numbered and our life span dependent on how many times we shall breath in a given life and thus as consequence of this fact, we must reduce the number of breaths so as to live longer, this idea was responsible for the origin of pranayama.

Methods

Subjects

For the accomplishment of the study, 20 subjects were selected from the University of Kashmir, department of physical education and sports. The head of the department (HOD) was officially informed and consent was received on the basis of research study. Research explanation was given to the subjects and also the physical trainer was involved for his support. The subjects were randomly selected from the department. Six months of yoga training was given to the subjects and pre-post test was applied for the collection of data. The subjects show good interest and co-operate while taking the test.

Variables and tests

The data was collected from the University of Kashmir, department of physical education and sports. The simple strength was taken 20. The data was obtained from pre and post test to see the difference on the physiological parameters. In the present study physiological parameters like systolic and diastolic blood pressure was taken into consideration. The collection of the data was done before and after six months of yoga practice.

Statistical technique

Present investigation was statistically analyzed by applying pre and post test and also the SCHEFFE’S Post hoc test was used to find the significant difference Between the Groups, Within the Groups and the Mean.

Results

Table 1:- In the table mean, SD and SOV is shown in the table on Systolic blood pressure of the subjects, also pre and post test is being represented. Study shows that the pre-test mean of (SBP) is high as compared to the post-test. The data is graphically represented in blow figure I.

Tests	N	Mean	S.D.	SOV	DF	MS	F
Pre-test	20	125.05	3.33	Between	2	5.50	0.41
				Within	17	13.30	
Post-test	20	119.5	2.28	Between	2	209.30	20.87
				Within	17	10.03	

Figure I

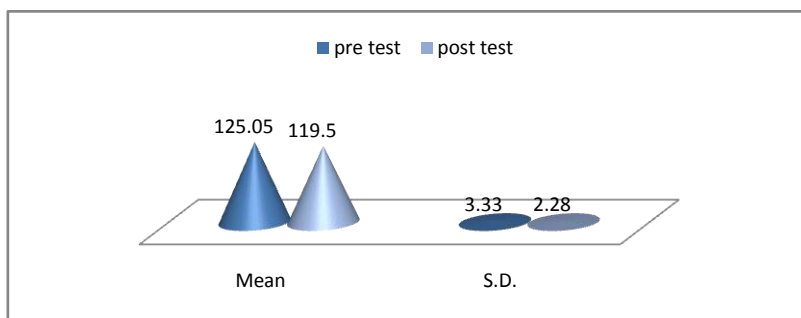
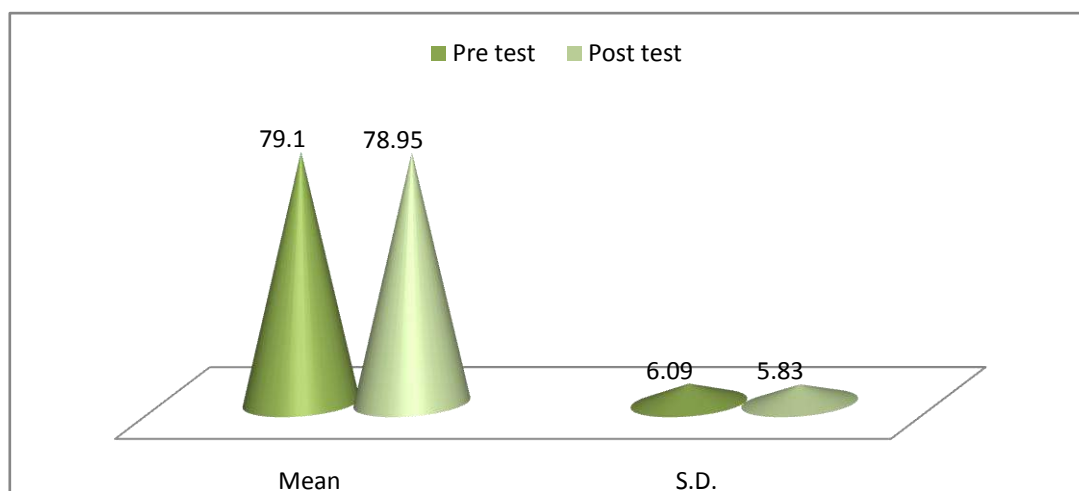


Table 2:- In the table mean, SD and SOV is shown in the table on Diastolic blood pressure of the subjects, also pre and post test is being represented. Study shows that the pre-test mean of (DBP) is high as compared to the post-test. The data is graphically represented in blew figure II.

Tests	N	Mean	S.D.	SOV	DF	MS	F
Pre-test	20	79.10	6.09	Between	2	6.62	0.38
				Within	17	16.21	
Post-test	20	78.95	5.83	Between	2	42.60	3.62
				Within	17	11.78	

Figure II



Discussion

On the variable blood pressure of the students of Kashmir University, department of physical education and sports calculating the blood pressure, pre and post test was taken on the systolic and diastolic blood pressure of subjects. On the systolic blood pressure before one month the (SBP) was high as compared to the post test. Similarly, on the diastolic blood pressure was also high like systolic blood pressure when compared mean. The study also supported by (Bhaskara, 2017), showing the systolic pressure high as compared to diastolic blood pressure. Physical exercise exerts minimum physical efforts but influences vital organs to induce the variety of physiological changes by the practice of yoga (Udup, 1972). As per by the (Yadav, 2001 & Srivastava, 2005) by the practice of yoga with its claiming effects on the mind can reduce and release emotional stress.

Conclusion

The conclusion on the basis of above data shows that the pre test on both of the systolic and diastolic blood pressure is high as compared to post test, gives the relevant information about the physiological parameter of university of Kashmir students, department of physical education and sports.

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Evaluation and Measurement in Physical Education and Sports

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Abstract:

Life is based on test and measurement. Physical education plays a vital role in evaluation and measurement. Each and every field of Physical Education deal with evaluation and measurement. "Test and Measurement evolves over a period of time and is a part of an ongoing scholarly investigation of not only individuals". (Hersay 1996 and Thomas 2001). The purpose of this paper is to lay framework for a discussion of the relative significance of a test and measurement system.

Keywords: Test, Evaluation and Measurement.

Test: A test is a tool used to measure some performance and to collect data. A test should be valid meaning it measures what its purpose to measure and it should be reliable, meaning it is repeatable. Measurement is the quantitative score derived from the test. Evaluation is the process of placing a value on that measurement.

Evaluation in Physical Education: The physical education evaluation is designed for all students who participates in physical education. This includes students who participates in adopted physical education. The evaluation is not a high stake or high security evaluation flexibility with evaluation is allowed for students to participate fully.

Measurement in Physical Education:

- Measurement is a specific score obtained through an expert evaluation.
- Measurement is a process through which our level of performance fitness level, ability, knowledge, personality, traits and skills are measured with the help of various standard test.
- Measurement is about the collection of data about performance or task completed by a sport person by using a test.

Aspects of Physical Education: There are two main aspects of any physical education environment that should be assessed. First is the activity itself. This may or may not be sporting endeavor but may pertain to activities of daily living as well. The activity must be assessed for the special needs necessary in that environment. These may include energy needs, time duration, muscles and limbs involved, forces applied, movements characteristics, body contact with others and range of motion required to name a few (Brown, 2009). This information is invaluable for determining program direction based on the needs of the individual group.

Second is the individual student or athlete. The learner must be assessed for muscular strength, speed, balance, agility, flexibility bodyfat, cardiac and respiratory levels and cognition to name a few (Enoka, 2002) Once the requirement of the activity and the learner are known, evaluation can occur to determine where they match and where the needs lie. This is the heart of test and measurement matching the need of the activity without a clear understanding of the either there can be no process towards a goal. Once again, one must first know where they are before they can begin a journey anywhere. This is true for both the physical trainer/teacher and the learner.

Evaluation Processes And Techniques

- Physical Education Test
- Rogers Strength Test
- Kraus-Waber Test
- Cable-Tension Strength Test
- Larson Strength Test
- New York State Physical Fitness Test
- Army Physical Efficiency Test
- Tuttle Pulse-Ratio Test
- Harvard Step Test
- Wetzel Grid
- General Motor Capacity

- The Johnson Test
- The Sargent Jump
- Aerobic Capacity
- Scott Motor Ability Battery
- Achievement Test
- Tests of Knowledge and Understanding

Other Evaluation Process

- Medical and Health Records
- Students Checklists
- Critical Incidents
- Questionnaires and Surveys
- Cumulative Records
- Autobiographies
- Sociometric Techniques
- Daily Schedules
- Anecdotal Records
- Rating Scales

Importance of Measurement in Physical Education: Measurement is an important aspect of all the program of physical education and sports. Without measurements it becomes very difficult to determine the level of achievements of various objectives of physical education and sports by individual.

- For giving motivation
- For discovering the needs of the participants. It identifies the strength and weaknesses of participants or students
- For preparation of effective planning
- For knowing the abilities and capacities
- For getting knowledge about the progress
- For knowing the achievements in future
- For proper classification of students

With the help of measurement students can be classified properly consequently. It can be said that measurement is really significant in the field of physical education.

Measurement and Evaluation in Daily Routine

- Alarm Clock
- Gasoline Gauge
- Speedometer
- Meeting New People
- Public Health Initiatives
- Promotion of Physical Activities
- Problems with Obesity
- Evaluation Standards for School Programs

Conclusion:

- Test, Evaluation and Measurement systems are undivided parts of physical education.
- It helps in achieving goals, aims and objectives.
- Measurement is a process by which the level of performance, fitness, ability, knowledge, personality and skills are measured with the help of standard test.

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A Comparative Study Of Cardio Respiratory Endurance Of Basketball And Handball Players

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Abstract:

The study aimed to compare cardio respiratory endurance of inter-collegiate basketball and handball players of Amravati University. A total of twenty (20) subjects were selected, ten (10) subject from basketball and ten (10) subjects were selected from handball players of inter college level of Amravati University and all of them were randomly selected for the study through a special sampling technique called as Simple random Sampling. The age of the subjects ranged between 18-27 years. To analyze the cardio respiratory endurance of both these groups i.e basketball and handball players the following tests were used, and YMCA 3-minute step test for measuring cardio respiratory endurance. The analysis of data was done by using statistical technique 't'- test for finding the significance difference of cardio respiratory endurance of basketball and handball players and the level of significance was set at 0.05 levels ($p < 0.05$).

Keywords: Cardio Respiratory Endurance, Basketball and Handball Players.

Introduction:

Evolution of human life started with the movement. Human being have been very active and creative by nature and physical activity has been part of their life all along since evolution for primitive man, search for food and shelter was the first activity this first activity was necessitated by this instinct for survival.

Basketball:

The game of Basket ball was invited in 1895 by William Morgan, who worked for the Y.M.C.A. in Holyoake, Massachusetts. He was concerned with providing exercise for large groups of businessmen and his earliest form of the game was destined to provide mild exercise for the people of this kind.

Handball:

The game of Handball as played today originated in Ireland, probably during the tenth century. The game became very popular and was referred to as "fives" representing the five fingers used in hitting the ball. The game played in the early days was slightly different from the game played today. The courts were larger, the ball was harder and travelled faster and the players were allowed to kick the ball as well as hit it with the hands. The people of the Emerald Isle instituted 1800s and the name that became legend was John Cavanaugh of York. The written accounts of his skill leave doubt that he was truly the champion of the day. Following the death of John Cavanaugh in 1819 there was no mention of a truly outstanding player until around 1850 when the name of William Baggs is credited with developing the technique of applying spin or "English" to the ball so that it would hop as it rebounded. This style of play added a new dimension to the game and created new interest in Handball.

Procedure and Methodology:

Twenty (20) subjects were selected for the collection of data which includes 10 subjects from basketball and 10 from handball players of inter collegiate level. The subjects were selected by simple random sampling method. The age of the subjects ranged between 18-27 years.

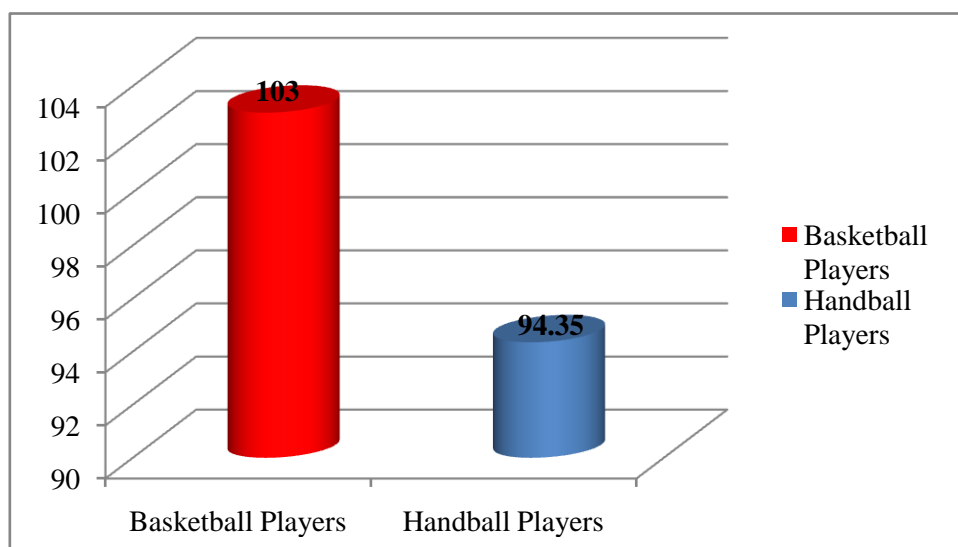
Equipments Used For Collection of Data:

The various equipments that were used for the collection of data were 12 inch high bench, stop-watch, metronome and chairs for measuring cardio respiratory endurance.

Table-1
Comparison of YMCA 3-minute step test between basketball and handball players

Game	Mean	S.D	M.D.	S.E	't' ratio
Basketball Players	103	8.42	8.65	2.73	3.17*
Handball Players	94.35	8.82			

Graph-1
Graphical Representation of Mean Value Between of Standing YMCA-3 Minute Step Test Performance of Basketball and Handball Players



Conclusion:

Within the limitation of the present study and on the basis of the findings, the following conclusions were drawn;

On comparing the Cardio Respiratory Endurance of Basketball and Handball Players, it was observed that even though the average Mean of Basketball Players were greater than that of Handball Players, there was significant difference among the Players. Hence, the analysis concluded that both the Basketball and Handball Players were unequal in Cardio Respiratory Endurance. It is concluded that there is significant difference between Cardio Respiratory Endurance of Basketball and Handball Players. Hence the researcher's pre assumed has been accepted.

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Impact of Regular Exercising Program on Improvement in Level of Blood Pressure

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Introduction:

Mild Exercising is widely recommended for the health benefits. According to a recent report of U.S. Surgeon General on physical activity and health in America, more than half of the U.S. population does not participate regularly in any type of exercise. Due to less participation in physical inactivity lead to poor health. The Surgeon General urged Americans to "get in shape," encouraging everyone to get at least one-half hour of moderately vigorous activity (such as brisk Mild Exercising) every day. The latest recommendations suggest that people should try for Mild Exercising or walking for two miles at a brisk speed of three to four miles per hour nearly all of the day or at least six days a week.

It is increasingly noticeable that one of the best way to maintain good health through physical activity. Regular participation in exercise has been shown to be helpful in the prevention of inactivity killers such as heart disease, cancer, and diabetes. Exercise also helps to control weight. (According to the latest research, one out of three world populations are obese.) Due to the exercise it is very much helpful to strengthen muscles and bones; it may even decrease your risk of developing diseases such as osteoporosis and arthritis. Some of the most interesting and overwhelming evidence supporting the need to be physically active is from the research being conducted at the Cooper Institute for Aerobics Research in Dallas, Texas. Dr. Kenneth Cooper, known as the "father of aerobics," founded the Cooper Clinic in the early 1970s to investigate the effects of physical activity and fitness on health and longevity and to help people develop healthy lifestyles. In July 1996, research from the Cooper Institute demonstrate that participating in moderate to high levels of physical activity reduced the risk of dying from any given cause. This held true regardless of other risk factors. In other words, even if an individual suffers from high blood pressure or obesity, the chances of dying are lessened by maintaining at least a moderate level of fitness. This is remarkably good news, especially for individuals who have hereditary risk factors such as a family history of heart disease.

In 2007, *Circulation*, the Journal of the American Heart Association, published an updated report on physical activity and public health. In order to make a recommendation on the amount of exercise necessary to benefit America's health, an expert panel of scientists, including physicians, epidemiologists, exercise scientists, and public-health specialists reviewed research on physical activity and the impact of exercise on health. The conclusion was the same as the plea issued by the Surgeon General: "Every U.S. adult should accumulate 30 minutes or more of moderate-intensity physical activity on most, or preferably all, days of the week." The researchers determined that intermittent as well as sustained activity can be beneficial. In other words, on days when you can't fit in a 30-minute Mild Exercising, you can still garner fitness benefits by taking two mile or shorter Mild Exercising squeezed in throughout the day. This may seem somewhat confusing to those of you who are well acquainted with previous recommendations to exercise for a sustained period of 20 to 60 minutes. The Surgeon General's report is not meant to overshadow or replace these previously recommended exercise guidelines.

Exercising for a sustained period of time is still the best way we know to make improvements in your cardio respiratory fitness. But for many, exercising for long periods of time can be intimidating. And most of us experience days when unforeseen events throw off our schedules and prevent us from having a solid block of time for exercise.

Significant health benefits can be realized by simply ceasing to sit and starting to move. The risk of developing heart disease, high blood pressure, non-insulin-dependent diabetes, and colon and breast cancers can be reduced just by becoming more physically active.

Methodology

The intention of the study is to discover and exposed the effect of Mild Exercising program on blood pressure. The study included 50 men from Shegaon city. The average ages of the subjects were 60 years. The survey was an experiment carried on 50 subjects with pre test and post test. All subjects which are willingly ready for the cooperation were considered for the study on a voluntary basis. The data was collected with the help of stethoscope and electronics sphygmomanometer.. In the beginning of Mild exercising program initial data (Pre-Test) was collected at various selected variable. After collecting initial data all the selected subjects were undergone there 90 days of Mild Exercising program. Duration of this Mild Exercising program was of 60 minutes daily at least six day a week under the expert supervision.

Statistical Technique Used

For statistical analysis standard procedures have been adopted. Mean and SD were first computed. Then pretest and post test data was analysed by ‘T’ test method.

Table-1 Comparison of mean values of pre and post test of systolic and diastolic blood pressure of Mild Exercising group

Type	Mean Pre test	Mean Post test	T _{cal}	T _{tab}
Systolic Blood Pressure	126.80	121.78	2.14	1.96
Diastolic Blood Pressure	86.80	81.78	13.58	

*level of Significant at 0.05 level t_{tab} for 48 DF = 1.96

Null Hypothesis **H₀**:- There is no difference in pre and post test was found in Systolic Blood Pressure of men by one tailed T test.

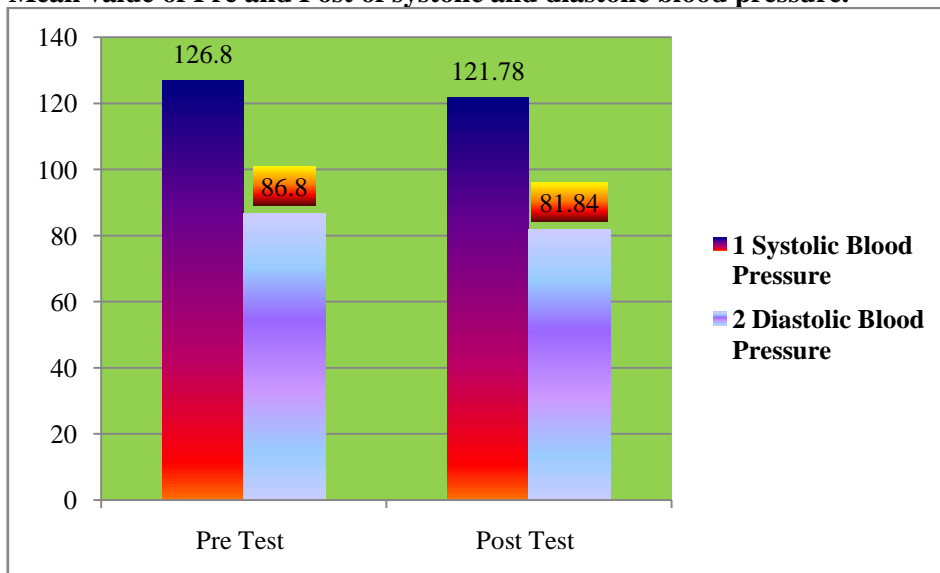
Alternative Hypothesis **H₁**:- There is significant difference in pre and post test was found in Systolic Blood Pressure of men by one tailed T test, post test results the better in systolic blood pressure than the pre test.

Table-1 indicates that that the calculated T value of Systolic Blood Pressure T_{cal} 2.14>1.96 T_{tab} of pre and post test men was found that null hypothesis was rejected. There is significant difference at 0.05 level of confidence for 48 DF as the calculated value of 2.14 is greater than 1.96 with 48 degree of freedom.

Table-1 also shows that that the calculated’ value of 13.58 between pre and post test men in diastolic blood pressure was found to be significant at 0.05 level of confidence tabulated value of 1.96 with 48 degree of freedom.

Graphical representation of above table is made in figure No. 1.

Fig. No.:1 Mean value of Pre and Post of systolic and diastolic blood pressure.



Conclusion:

The present study had clearly indicated an Impact of Regular Exercising Program on Improvement in Level of Blood Pressure. From the findings a conclusion could be drawn that there has been significance difference between the pre and post test of men in systolic and diastolic blood pressure. The findings of this study clearly show that regular Mild Exercising program is beneficial for health and might be beneficial for upcoming generation.

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Web Source

<<http://health.howstuffworks.com/wellness/diet-fitness/exercise/benefits-of-Mildexercising2.htm>>

Comparative Study of Aggression and Anxiety of Inter Collegiate Male and Female Kabaddi Players

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Abstract:

The main purpose of the study was to investigate the aggression and anxiety level of Inter Collegiate Male and Female Kabaddi Players of Sant Gadge Baba Amravati University, Amravati. In the current investigation, fifty students were selected at random by simple random sampling technique, from Inter Collegiate Male and Female Kabaddi Players of Sant Gadge Baba Amravati University, Amravati. 25 Male and 25 Female Kabaddi Players were selected during the academic year 2016-2017. The age group was ranging from 18-25 years. The variables selected for the research work like that Aggression and Anxiety. The data pertaining to the study was collected by administrating the related standard questionnaire on the inter-collegiate Player. After that collected data was put into Microsoft Excel to develop Master Chart and then 't' test was used for the statistical treatment. To test the hypothesis the level of significance was set at 0.05 level of confidence. After the statistical analysis of data it was found that there was significant difference in the aggression and anxiety level between male and female inter collegiate Kabaddi Players of Sant Gadge Baba Amravati University. Hence the Researchers Pre-assumed Hypothesis was accepted.

Keywords: Aggression, Anxiety, Kabaddi Players.

Introduction:

Psychology is a science of behaviour of the organization. The word 'psychology' has come from the Greek word 'psyche' meaning 'soul' and the 'logos' meaning 'study'. In incident time psychology was not a separate discipline. It was a part of philosophy. In the later part of the nineteenth century psychology was perhaps dissociated from philosophy. Since then it has never looked back. It was arts subject like philosophy. Gradually it developed into scientific discipline. Objections are still raise to considering psychology as a science.

Aggression:

Aggression is a piece of human conduct and is essential for a person to live and battle for higher accomplishments. Battle for matchless quality, predominance, and brilliance in games clearly includes animosity. Aggression in one shape or the other is unavoidable and certain in games exercises. At the point when threatening vibe assumes control hostility, the circumstance ends up disturbing and it turns into an enemy of social conduct.

Aggression may help into execution of a competitor since it stimulates the competitor to invest harder exertion of the achievement of the group. Competitors must be lessened and control animosity so as to play tranquilly and play out the best. Suitable dimension of animosity as allowed under the standards administering the diversion will in general enhance the ability and improve the exertion and then again, high or low dimension of hostility will hamper and retard the execution in games.

Anxiety:

Anxiety, selected for the study, is one of the psychological factors. It differs from arousal in that it encompasses both, some degree of activation and an unpleasant emotional state. Thus, anxiety is the term used to describe the combination of intensity of behavior and direction of an impact or emotion. The direction of characteristics of anxiety is negative in that it describes subjective that are unpleasant.

Anxiety has been so great that the person loses complete control of himself and the situation. Researchers have speculated on the relationship of physical competence to academic skill. Enhancing his or her physical aptitudes may enhance the understudy self-idea, when we like ourselves; we are

maybe well-suited to contemplate all the more proficiently. At the end of the day physical software engineers add to the advancement of an ideal self-idea. Athletic projects can and should make advantageous commitment to the self-idea of the members.

Objectives:

The main purpose of the study was to investigate the aggression and anxiety level of Inter Collegiate Male and Female Kabaddi Players of Sant Gadge Baba Amravati University.

Hypothesis:

On the basis of literature searched and the researcher's own perception it was hypothesized that there would be significant difference in Aggression and Anxiety level between Male and Female Kabaddi Players of Sant Gadge Baba Amravati University, Amravati.

Methodology:

Source of Data:

For the present study subjects were selected from inter collegiate Male and Female Kabaddi Players of Sant Gadge Baba Amravati University Amravati for the collection of data.

Selection of Subjects:

Fifty subjects, (25) Male and (25) Female Kabaddi Players were selected for the collection of data from Inter Collegiate Players of Sant Gadge Baba Amravati University, Amravati. The age group was ranging from 18-25years.

Sampling Method:

The subjects were being selected by using by simple random sampling method.

Collection of Data:

The data pertaining to the study was collected by administrating the related standard questionnaire on the inter-collegiate Player. After that collected data was put into Microsoft Excel to develop Master Chart and then 't' test was used for the statistical treatment.

Criterion measures:

Following are the criterion measures which were responsible for collection of data, to testing the hypothesis.

Aggression:

The standard Questionnaire of Aggression constructed by R. L. Bhardwaj scale, was used to know the aggression level of Male and Female Inter Collegiate Kabaddi Players of Sant Gadge Baba Amravati University, contains 28 items.

Anxiety:

The standard Questionnaire of Anxiety constructed by (SCAT) was used for the collection of data.

Level of Significance:

To test the hypothesis the level of significance was set at 0.05 level of confidence which was considered adequate and reliable for the purpose of this study.

Analysis of the Data:

After the collection of data from Inter Collegiate Male and Female Kabaddi Players of Sant Gadge Baba Amravati University, Amravati, the raw data were converted into standard one by using a statistical technique 't' test for testing of hypothesis.

Table No. 1
Comparison of Aggression Level between Male and Female Kabaddi Players

Group	Mean	S.D.	Mean Difference	Degree of freedom	O.T	Tabulated 't'
Male	76.35	32.77	16.44	48	2.30	2.02
Female	59.9	21.14				

Table No. 1:

indicates that the mean of Male Kabaddi players is 76.33 which is greater than the mean of Female Kabaddi Players which is 59.9. So this mean difference is found as 16.43. The calculated value of ‘t’ is found as 2.30 which is greater than tabulated ‘t’ which is 2.02 at 0.05 level of significance. Hence the hypothesis which was given by the researcher is accepted.

Graph-1
Graphical Representation of Mean difference of Aggression Level between Male and Female Kabaddi Players

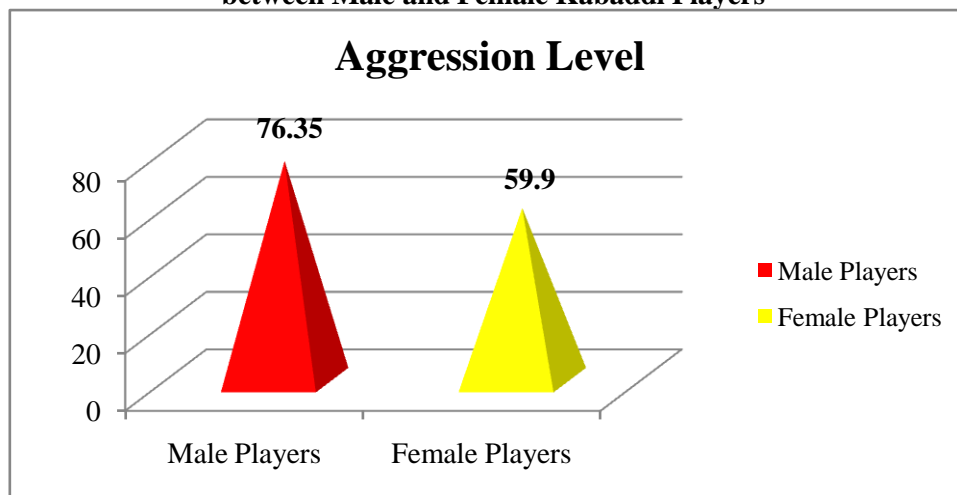
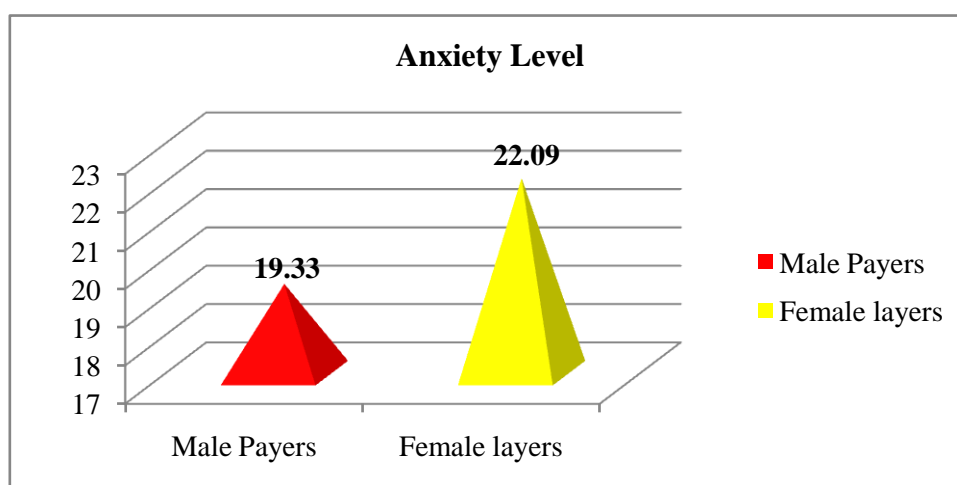


Table No. 2
Comparison of Anxiety Level between Male and Female Kabaddi Players

Group	Mean	S.D.	Mean Difference	Degree of freedom	O.T	Tabulated ‘t’
Male	19.33	7.54	3.56	48	2.15	2.02
Female	22.09	5.2				

Table No. 1: indicates that the mean of Male Kabaddi players is 19.33 which is less than the mean of Female Kabaddi players which is 22.09. So this mean difference is found as 3.56. The calculated value of ‘t’ is found as 2.15 which is greater than tabulated ‘t’ which is 2.02 at 0.05 level of significance. Hence the hypothesis which was given by the researcher is accepted.

Graph-2
Graphical Representation of Mean difference of Anxiety Level between Male and Female Kabaddi Players



Conclusion:

In the beginning of this study it was hypothesized that there will be a significant difference in Aggression and Anxiety level among Male and Female Kabaddi Players of Sant Gadge Baba Amravati University Amravati. After the statistical analysis of data it was found that there was significant difference in the aggression and anxiety level between male and female intercollegiate players Kabaddi Players of Sant Gadge Baba Amravati University. Hence the Researchers Pre-assumed Hypothesis is accepted.

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A Comparative Study Of Anxiety Among Junior And Senior Players**Dr.Chetak R.Shende**Shri Shivaji College of Physical
Education Amravati**Abstract:**

The purpose of this study was to compare the anxiety between junior and senior players. The study was conducted on hundred samples, consisting of fifty junior school state level players and fifty senior inter university players. Only Basketball, Cricket, Handball, Hockey, Kabaddi, Kho-Kho and Volleyball women players were selected. The sample consists of fifty junior state players of Santa gadge baba amravati university districts & fifty senior inter university players of Santa gadge baba amravati university districts. Random Sampling Technique was employed to select the subjects. Anxiety was obtained by administering Sinha's Comprehensive Anxiety Test. The data collected through aforesaid tests were analyzed with respect to anxiety. T test was applied to compute the significances among two groups. The significance of data was judged at 0.05 levels. The result of the study indicates that anxiety of junior and senior players were different

Introduction:

Anxiety is a complex emotional phenomenon. It is reflected in the negative state of disturbed feeling which warns the athlete to find some ways to meet a situation. It is found in his unusual responses to situations. In an anxiety ridden state of mind, he is now incapable of doing things which earlier were fully under his control. It has startlingly been found influencing future events. An overanxious person is not restless over the things in hand (here and now), but he is more concerned about the future happenings which bother him. This condition then becomes operative in him. It changes his state of mind.

Anxiety describes the individual's level of emotionality. Anxiety and arousal are related because at the higher levels of arousal we considerably have more emotionality than at the lower levels. Since anxiety is an inferred emotional state of the organism and cannot be directly observed, investigations of anxiety rely heavily on having the individual report her own emotional states under various stress conditions. It has been observed that anxiety is a physiological response to a real imagined threat. It is a complex emotional state characterized by a general fear. Feelings of rejection and insecurity are usually a part of anxiety. A certain amount of anxiety is needed for peak performance.

Methodology:**Objectives of the study:**

The objectives of the study are stated as follows:

- To study the anxiety among junior and senior women players.
- To compare the anxiety among junior and senior women players.

Hypothesis :

There would be no significant difference between junior and senior players on anxiety.

Selection of Sample:

The sample consists of fifty junior state players of Santa gadge baba amravati university districts & fifty senior inter university players of Santa gadge baba amravati university districts. These subjects were drawn from the colleges affiliated to Santa gadge baba amravati university. Random Sampling Technique was employed to select the subjects. The data was collected from senior players during inter university coaching camp and junior players during school state level sports tournaments. The present study is based on survey method.

Tools used :

Sinha's Comprehensive Anxiety Test has been taken to assess the anxiety. This questionnaire consisted of ninety statements.

Statistics used:

Student's t test has been applied to find out the significant differences among two groups at 0.05 levels of significance. The collected data were tabulated to find out the difference of anxiety among two groups.

Results and discussion:

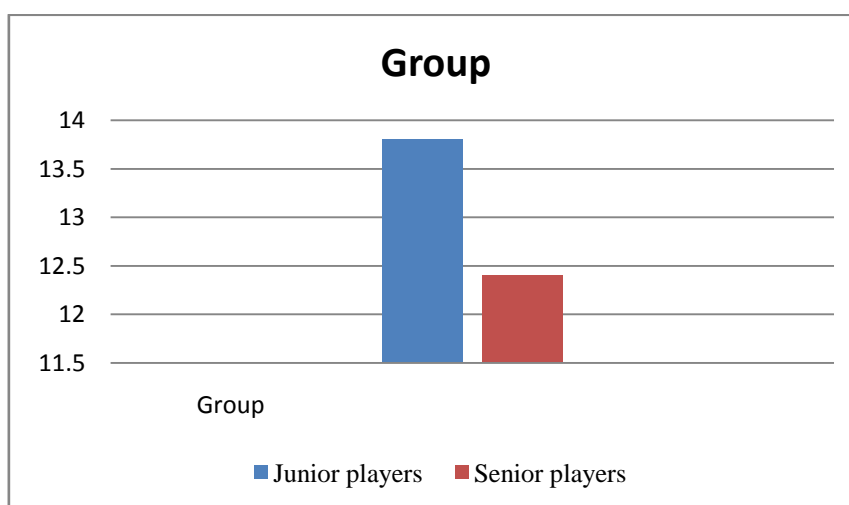
Table - 1 Means, SDs and T-ratio of anxiety between Junior and Senior women players.

Variables	Group	N	Mean	SD	T-ratio
	Junior	100	13.8	2.22	
Comprehensive Anxiety	Senior	100	12.4	2.30	4.31*

* Significant at 0.05 levels.

The means of anxiety for junior was 13.8 and senior was 12.4. The calculation of mean, standard deviation and T ratio of junior and senior on anxiety are presented in table 1. Table 1 reveals that there is significance between junior and senior women players on anxiety. Thus it may be concluded that anxiety of both junior and senior women players are different.

Fig.1: The mean of the anxiety of junior and senior players



The means of anxiety of junior and senior players was 13.8 and 12.4 respectively. The T ratio obtained is significant at 0.05 level of confidence. Hence the hypothesis that senior and junior women players have not differ on anxiety was rejected. Senior women players have low anxiety than junior women players.

Conclusions :

On the basis of the study the following conclusions were drawn:

1. Senior women players were less anxiety than junior women players.
2. There was significant difference between junior and senior women players on anxiety.

Recommendations:

1. While giving psychological training along with yoga and meditation, special attention must be given on anxiety
2. Sports Competition Anxiety help in improving performance.
3. During competition players are mentally anxious and this affects them in handling performance. To avoid such effects players prepared psychologically.

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Neural Links Of The Motor Aptitude: A Review

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Abstract

The procurement of motor skill is portrayed with an enhancement of execution, automaticity and with the decrease in the inconstancy of execution. Late investigations proposing that recognizable neural systems are enlisted amid various periods of motor learning and the contract of some brain areas like MI, DLPC, PFC, basal ganglia and cerebellum were reviewed. Likewise, the capacity of synaptic pliancy and motor memory in skill securing was accentuated.

Key words: motor skill, automaticity, primary motor cortex, basal ganglia, synaptic pliancy, motor memory

Introduction

Nearly every deliberately motor act we perform day by day might be considered as a motor aptitude. They are altogether learned through redundant practice, performed so as to achieve a specific objective and with the expectation to be precise or quick. Some of them, such as going after some espresso, or taking care of the PC mouse, are extremely straightforward, while a few, such as playing out a tennis serve or playing a violin are exceptionally mind boggling. Motor aptitude getting the hang of as indicated by Willingham (1998) is the procedure by which developments are executed all the more rapidly and precisely with training. Lefebvre et al. (2015) as of late complex the meaning of motor learning according to the new bits of knowledge and achievements in the field and portrayed it as a training instigated securing and enhancement of motor execution (i.e., aptitudes), continuing after some time and described by a move of the speed/curacy exchange off, *automatisation* and decrease of execution changeability. The system which underpins the procurement of motor aptitudes has been inquired about broadly, it contains the essential motor cortex (MI), premotor cortex (PM), beneficial motor territory (SMA), cerebellum, dorsolateral prefrontal cortex (DLPFC) and basal ganglia (Lefebvre et al. 2015) and parietal territories (Doyon et al., 2003).

Association of various brain regions in motor aptitude learning

Learning of the motor aptitudes incorporates communications of various cortical and subcortical circuits which are vital for some intellectual necessities in skill procurement, especially in the quick period of learning (Doyon et al., 2003). The key area in all periods of motor learning is MI (Dayan and Cohen, 2005), which contains somatotopic portrayal and is vital for the executing of the movement. Further critical structure is the prefrontal cortex (PFC), which is a gathering of interconnected neocortical regions that sends and gets projections from for all intents and purposes all cortical tactile frameworks, motor frameworks and numerous subcortical structures (Miller and Cohen, 2001). The PFC has for some time been suspected to assume an imperative role in psychological control, in the capacity to arrange thought and activity as per inner objective (Groenewegen, Uylings, 2000; Miller and Cohen, 2001). The cerebellum was customarily thought to be a motor structure engaged with balance and coordination, while the DLPFC was believed to be basic for the most intricate intellectual capacities (Diamond, 2000). It appears, in any case, that the cerebellum is imperative for each equivalent subjective capacity of which the DLPFC is basic, then again, most intellectual assignments that require the DLPFC likewise require the neo-cerebellum (Diamind, 2000).

Further imperative structure in the procurement of skills are the basal ganglia – nuclei in the forebrain that incorporate the striatum, the globus pallidus, the amygdala, the substantia nigra and subthalamic core, they are extensively associated with the thalamus, cortex and the midbrain structures, and have a critical role in the psychological control of motor sequencing (Harrington and Haaland, 1998). The biggest contribution to basal ganglia is the striatum, which gets signals from the whole neocortex and undertakings handled data to the areas of frontal cortex which are involved in motor arranging and execution (Calabresi et al., 2007; Graybiel and Kimura, 1994).

Changes of movement in various brain locales during various errands or periods of learning

A few investigations analyzed the adjustments in action of various brain districts amid the securing of motor aptitude. Poldrack et al., (2005) explored initiation amid various undertaking conditions including single and double assignment execution. They found that, in single amateur sequential response time undertaking with working memory stack, the system containing ventral premotor cortex and substandard prefrontal gyrus, DLPFC and the correct caudate body, was initiated, which proposed the inclusion of these areas in intellectual control amid early learning. They additionally discovered that, amid training, the movement of basal ganglia regions was brought down over the successive preliminaries however not for arbitrary trails, which demonstrates that these areas are engaged with the learning of motor arrangement (poldrack et al., 2005). As abridged in Yin et al. (2009), amid motor and procedural learning, changes happen in the initiation of the striatum, so that different regions of the striatum are differentially engaged with motor learning. For example, sores of dorsolateral striatum in rodents upset framing and keeping up ongoing reacting (Yin et al., 2004). Karni et al. (1995) found expanded initiation of essential motor cortex following 3 weeks of engine succession which demonstrated the conceivable amplification of the MI utilitarian portrayal explicit for the arrangement. Nudo et al. (1996) additionally discovered that social experience changed motor cortex appearing in unpredictability and in the cortical zones committed to the portrayal of explicit movements vital for learning ability. During the quick learning of successive motor errands, Floyer-Lea and Matthews (2005) watched regulated territorial mind movement in DLPEC, MI and pre-beneficial motor area where the action diminished with advancement of learning. Opposite, SMA, PM, parietal districts, striatum, the cerebellum, demonstrated expanded initiation with learning progression (Floyer-Lea and Matthews, 2005).

The function of cerebellum in motor learning is as yet not exactly clear, it appears that the cerebellum is most effectively involved with early succession learning (Doyon et al., 2003) because of its work in the alteration of movement kinematics to create the motor yield as per the tactile sources of info. Notwithstanding that, analysts generally concur that with the enhancement of the execution cerebellum movement diminishes, which underpins the idea of cerebellum contribution in mistake discovery (Doyon et al., 2003).

Memory and synaptic pliancy in the gaining of aptitude

Memory is generally considered as made out of two noteworthy frameworks in the brain; decisive and procedural or non-explanatory; (Kandel, 2009; Willingham, 2002). Decisive memory is the memory for certainties and occasions for individuals, places, and questions, it requires average worldly projection and the hippocampus, while procedural memory is the memory for perceptual and motor aptitudes and different types of non-explanatory memory which include various cerebrum frameworks, similar to cerebellum, the amygdala, and now and again even basic reflex pathways (Kandel, 2009). Procedural memory is picked up without cognizant consciousness of the principles being found out while definitive memory is portrayed by cognizant attention to the realities or occasions being found out (Willingham, 2002), the memory of "*how to get things done*" may, after the union, keep going for a lifetime for very much learned aptitudes (Yin et al., 2009). Procedural learning, as confirm in neuropsychological examinations in which amnesic patients showed unblemished perceptual skill learning regardless of truly harmed definitive memory (Cohen and Squire, 1980).

Research investigations of the instruments of memory stockpiling incorporate a few methodologies yet likely the most persuasive is gotten from Cajal's thought that taking in results from changes in the quality of the neurotransmitter which was later renamed as *synaptic versatility* (Kandel, 2009). Obtaining, combination and maintenance of motor aptitudes is firmly connected with neuronal pliancy at the cortical and subcortical dimensions that develops after some time and draws in various spatially conveyed and interconnected brain regions (Dayan and Cohen, 2011). Two principle types of synaptic pliancy are long haul potentiation and long haul misery and they are communicated all through the brain at excitatory neural connections. For the two procedures, with respect to motor expertise learning, dopamine (DA) is fundamentally imperative. Curiously, when MI dopaminergic terminals were obliterated, after the errand was obtained, there was no effect on the assignment, demonstrating that dopamine is essential for the securing yet not for the execution of the aptitude (Molina-Luna et al., 2009). Notwithstanding, neither the annihilation of DA terminals in MI nor DA receptor antagonists ended adapting totally, which implies that DA in MI likely adjusts skill adapting, yet different modulators, for example, acetylcholine, serotonin and GABA, may halfway redress.

Xu et al., (2009) watched quick neural connection arrangement during LTP *in vitro*, and they found that neurotransmitter development in the neocortex starts promptly as creatures take in another errand. They reasoned that balanced out neuronal associations are the establishment of tough motor memory. The *underlying mechanism* isn't known yet after the underlying procurement and with training, enactment moves to progressively back locales where the cerebellum accept the more prominent job and is the conceivable site of motor memory (Shadmehr and Holcomb, 1997).

Due to the significance of understanding the advancement of motor aptitude and the two factors, those which lead to flawlessness, and additionally those meddling with execution, further development in neuroscience research might be foreseen, especially because of the critical extension of cerebrum imaging techniques.

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Effects Of Exercise On The Cardiovascular System

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Abstract:

This paper is about the effects of exercise on the cardiovascular system. There are lots of benefits of endurance training more than just having a good physique or health. For most of the peoples the main purpose of the physical training is just the physical fitness. But the systemic Physical training improves the efficiency of the heart's ability to pump blood and reduce stress level. The physical training has both long term as well as short term effects on the cardiovascular system. There are numbers of changes occurred in the cardiovascular system as a result of regular physical training. These changes in the cardiovascular system helps in reduction of number of heart related diseases also.

Keywords: Cardiovascular system, training, heart.

Introduction:

Cardiovascular system is also known as circulatory system. Physical training effects number of systems of the body. Endurance training means aerobic exercises performed by an individual in the presence sufficient amount of oxygen. The heart beats tirelessly and endlessly throughout the life to supply oxygen and other nutrients through blood to the entire body. The efficiency of the cardiovascular system can be enhanced through prolonged physical training. A healthy heart can work more efficiently during exercise to meet the requirements of the working muscles. The direction of the blood supply is directed towards the active muscles from non-active muscles for better functioning of the active muscles. There are some changes that are the result of prolonged physical training which are given below:-

- Heart Rate
- Heart Size
- Stroke Volume
- Cardiac Output
- Blood Volume
- Blood Pressure

1. **Heart Rate:** It means the heart beats per minute. Heart rate increase during physical activity, to meet the requirements of the working muscles. The heart beat can reach up to 180 beats per minute during moderate exercise. It can reach up to 240-260 beats per minute during maximal intensity workout.

The normal heart rate is 72 beats per minute but regular physical training it can reach up to 50 to 60 beats per minute. In highly trained athletes the resting heart rate is less than 40 beats per minute. The maximum heart rate can be attained during exercise depends upon the following factors:

- Emotion
- Environmental temperature
- Humidity
- Physical conditions

After regular physical training the recovery period of heart rate also decreases.

1) **Heart size:** The size of the heart increases after few weeks of endurance training to bear the excessive work load. This hypertrophy is the result of endurance training. The weight and volume of the heart will increase. The thickness of the chambers size also increase especially left ventricle's wall. The ability of the heart to pump also increases.

The hypertrophy of the athletic heart should not be taken as the cardiac enlargement of patients suffering from hypertension.

2) **Stroke volume:** the amount of blood pumped by the left or right ventricle during each contraction. Stroke volume of an untrained individual is less than trained individual. Stroke volume increase as a result of regular physical training. The resting stroke volume of a normal person is about 55 to 75 ml. whereas stroke volume of trained athletes is 90 to 120ml. at rest.

The capacity of the left ventricle to hold the blood is increased as a result of endurance training. This will help in increased amount of stroke volume.

- 3) Cardiac output: the amount of blood pumped by either the left or right ventricle of the heart in one minute.

Cardiac output = Stroke Volume x Heart Rate

Stroke volume and heart rate are the components of the cardiac output. Cardiac output is directly proportional to heart rate. Due to the increase in stroke volume and heart rate during endurance training the cardiac output will also increase simultaneously. Cardiac output in normal individual is 14 to 20 litre per minute and in trained individuals it ranges from 25 to 35 litre per minute.

- 4) Blood Volume: The working muscles require more oxygen and nutrients, to meet the increased demand of the active muscles more blood is supplied to the working muscles. As a result of regular physical training the volume of blood is increased due to increased capillaries as well as increase in plasma volume and red blood cells. It will also help in good opening of the present capillaries.
- 5) Blood Pressure: It is the force exerted by the blood on the blood vessels. The systolic blood pressure is increased during moderate type of exercises due to increase in heart rate and stroke volume. On the other hand there is no noticeable change in the diastolic blood pressure. The arterial blood pressure rise enormously during severe muscular training, but the diastolic blood pressure decreases. The blood pressure returns to the resting level very quickly after exercise.
- 6) Adaptation to Working Load: The process of adaptation to working load is very fast in trained persons. The heart adjust quickly according to body requirements.
- 7) Blood Viscosity: The viscosity of the blood decreases or the plasma content increases as a result of regular exercise. Increase in plasma content facilitates the easy and faster blood circulation in the body.
- 8) Increase in Haemoglobin: After few weeks of endurance training the haemoglobin (RBCs) content in blood. Haemoglobin rich blood carry more oxygen, which ultimately improves the energy flow in the body.
- 9) Improves Cardio respiratory System: The efficiency of the respiratory system also enhanced with improved circulation. The improved cardio respiratory system help in the supply of more oxygen to each cell with single breath.
- 10) Increase in Venous Return: During exercise, the alternate muscle contraction and relaxation facilitates the venous return by putting more pressure on the blood towards the heart. Blood is squeezed out from the veins towards the heart during contraction. It allows to fill blood during relaxation of the muscles. Increased venous return is also the result of increase in blood volume.
- 11) Blood Flow to Skeletal Muscles: During exercise, the blood flow to the skeletal muscles increases significantly. During rest, the blood supply to the skeletal muscles is 3 to 4 ml/100 gram of the muscle per minute. But during moderate exercises it increases up to 60 to 80 ml and 90 to 120 ml in severe exercise. During exercise active muscles and vital organs get large amount of blood supply in comparison to inactive muscles and non-vital organs. The large amount of blood supplied to the active and vital organs help in providing sufficient amount of energy for performing activity.
- 12) Reduction of Heart Diseases: Physical exercise also reduces the risk of heart diseases like coronary heart disease, stroke, hypertension etc.

Conclusion:

From above discussion it can be concluded that regular and systematic physical training has so many good effects on cardiovascular system. Person with fine cardiovascular system can perform exercise efficiently and lessen the risk of having heart disease. So one should perform endurance training at least for 30 to 40 minutes per day regularly to keep your heart in well condition.

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A Comparative Study On Anxiety And Aggression Among Athletes And Non-Athletes.

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Abstract

Sports have a very prominent role in the modern society. It is important to individual, a group, a nation and indeed, the world. Throughout the world, sports have a popular appeal amongst people of all ages and both sexes. The aim of the study was to find out the difference between anxiety and aggression among the athletes and non athletes. Investigator has taken sixty inter university women players were selected as subjects during inter university tournament. The data was collected through the anxiety and aggression scale and collected from the athletes and non-athletes women players were put for 't' test statistical treatment to find out the difference between them.. The result of the study found that significance difference between athletes and non-athletes, athletes are more aggressive and anxiety than non-athletes.

Introduction:

Sports is competitive activity that involves vigorous physical exertion or tan institutionalized he use of relatively complex participation of the intrinsic satisfaction associated with the activity it self and the external reward earned through participation.Sports by their very nature are enjoyable challenging all absorbing and require a certain amount of skill and physical condition. Sports holds a prominent place in the modern life. Millions of people participate in sports activities, watch and red about them and spend billions of dollars annually for sports related activities and equipment. Sports have a very prominent role in the modern society. It is important to individual, a group, a nation and indeed, the world. Throughout the world, sports have a popular appeal amongst people of all ages and both sexes.Sports competitions produce sports personalities, ideal people that we can look up to and achievements that we can marvel at for many youth. The sports stars are better known than the leading politicians of the country. Sports have always reflected development in the society. Sports, indeed has been mirror of society.

Aim of the study A Comparative Study on Anxiety and Aggression among Athletes and Non-Athletes.

Objectives of the study To find out the difference exist in anxiety and aggression among the athletes and non- athletes.

Methodology To find out the difference exist in anxiety and aggression between athletes and non athletes players, sixty inter university women players were selected as subjects during inter university tournament.

Statistical analysis The data collected from athletes and non-athletes women players were put for 't' test statistical treatment to find out the difference between them.

Result and Discussion

Table 1.

Mean value Standard deviation and 't' score of the interuniversity athletes and non-athletes women players.

Variables	Interuniversity playersAthletes	Non-athletes	't' value
Aggression	13.20=2.36	12.25=2.49	2.375*
Anxiety	19.63=2.74	21.18=2.66	2.105*

*significant at 0.05

Table 2.

Groups	Sample size	Mean	SD	't' value
Athletes	60	13.20	2.36	2.001
Non-Athletes	60	12.25	2.49	

* Significant at 0.05 level

The mean difference in each of anxiety and aggression scales were analyzed by't' test for statistical significance of inter university women athletes and non-athletes players. It is evident from

the table 2 that there is significant difference exists among the inter university women athletes and non-athletes players in aggression

Table 3. Mean value, Sd and 't' score of the Anxiety

Groups	Sample size	Mean	SD	't' value
Athletes	60	21.18	2.66	2.1055
Non-Athletes	60	19.63	2.74	

Significant at 0.05 levels

The mean difference in each of anxiety were analyzed by 't' test for statistical significant of inter university women athletes and non-athletes. It is evident from the table 3 that there is significant difference exists among the inter university women athletes and non-athletes players in sports competition anxiety test. Conclusion It was concluded that with the limitation of the study in the selected Aggression, Anxiety were analyzed by 't' test for statistical significance of inter university women athletes and non-athletes. The result of the study found significance difference between athletes and non-athletes, athletes are more aggressive and anxiety than non-athletes.

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A Review On Yoga And Meditation: Enhancing The Performance Of A Human Physiologically And Psychologically

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Abstract:

Yoga and meditation consisting of development in the physical, mental and spiritual level. When the body is physically healthy, the mind is clear, focused and stress is under control. The main goals of meditation and yoga it help human to enhanced more capacity to work, power to solve problems, decision making power, sensitivity, control over feelings and emotions, increase in concentration and memory, present-mindness, awareness, increased energy to work and complete relaxation and restoration of health.

Keywords: Yoga, meditation, stress management, health

Introduction:

The health of the body is of fundamental importance in life. As the Swiss-born Physician, Paracelsus, very correctly said, "Health isn't everything, but without health everything is nothing". To preserve and restore health there are physical exercises, breathe exercises and relaxation techniques i.e. Yoga and meditation are required. For that special programmes have been developed from the basis exercises: "Yoga for Back pain", "Yoga for joints", "Yoga for Seniors", "Yoga for children's", etc. To maintain good health, other valuable exercises within "Yoga in daily life" are the purification techniques of Hatha Yoga. These involve Deep Relaxation (Yoga Nindra), Concentration Exercises (e.g. musical mediation) as well as Mudras and Bandhas (special yoga techniques).

An even greater factor in the maintenance of good health is the food we eat. What we eat influences both our body and psyche-our habits and qualities. In short, the food we eat has effect upon our whole being. Food is the source of our physical energy and vitality same way the meditation is the food for mental health. In general, we are led through life by the mind and senses, rather than having these under our control. However, to gain control of the mind, we must first place it under inner analysis and purify it. "Yoga in daily Life" offers numerous methods to attain mental wellbeing: Mantra practice is important tool for self investigation and self-analysis. In this meditation practice we come into contact with our subconscious mind, the source of our desires, complexes, behavioral patterns and prejudices. This technique enables us to overcome negative qualities and habits and helps us to better manage life's problems.

Objectives:

In this paper I have made an attempt to observe through study of how Yoga and meditation can actually boost the quality of life in terms of physical, mental and spiritual level. It studies how meditation and yoga help human to enhanced more capacity to work, power to solve problems, decision making power, sensitivity, control over feelings and emotions, increase in concentration and memory, present-mindness, awareness, increased energy to work and complete relaxation and restoration of health of the body and mind.

Methodology

The method of research adopted is secondary in nature. Sources referred are mostly from the internet as well as books written by spiritual guru and other eminent writers based on observations and research.

The Techniques Of Yoga And Meditation

A. Movement and Postures (Asana)

Yogic techniques are known to improve one's overall performance. *Pranayama* is an important for overall health. Postural practices often play a key role in a yoga therapy session and may be done standing, sitting, or lying down. Specific poses and movements are carefully selected depending on any health conditions, injuries or goals you may have. Generally speaking, asana are used to help both stretch, stabilize and strengthen different parts of the body, as well as promote increased circulation and energy flow to target areas. Your posture and balance will also be improved through asana practice.

B. Meditation**Three stages of meditation**

1. **Clearing the mind:** The mind is always entangled in thoughts. Either it keep thinking about the future or wanders in the past. It should be possible through worship, prayer, control over the body and mind through music or other for keeping the mind pure and peaceful. Only pure mind can bring about a thoughtless state and a thoughtless state takes us towards self-realization.
2. **Watching the mind:** We can't see the wind but through movements of the leaves, we can see its presence. Similarly, if you want to see the mind, then look at thoughts. Thoughts give the right information about the mind. If we watch mind again and again, then we can discover the secrets of the mind.
3. **Taming the Mind:** The last stage of meditation. In this stage you control your mind. Not forcefully but with patience and understanding. We learn to make thoughts as instruments to help us achieve our goal. After this the mind will start behaving like a good servant.

Steps of Meditation:

- A. **Prayer:** Prayer has tremendous power. In prayer, one should always use positive words and words are full of devotion and it always be done with faith and a feeling of love.
- B. **Relaxation:** For relaxation, *Pranayam* (Breath regulation) be used For example, inhaling (breathing in) at the count of 4 and exhaling (breathing out) at the count of 6. In this way breathing is controlled.
- C. **Contemplation:** To know a subject in depth and to understand it completely means 'contemplation'. Contemplation is a technique for focusing the mind.
- D. **Concentration:** It is exercise for the mind- for the mind which is heavy and dull. Concentration means focusing the mind on one particular thing.
- E. **Will-Power**
- F. **Self-Observation with Awareness**

Literature Review

Yoga is a traditional method of meditation developed by the saints of ancient India. They practiced yoga as an effective method of controlling their mind and bodily activities. When the body is physically healthy, the mind is clear, focused and stress is under control. According to research scholars yoga is a complex and dynamic intervention which involves asset of *asanas*, breathing exercises which relaxes the stress in mind. Further, a number of studies have been conducted in the past to understand the importance of yoga and meditation. Among the studies conducted in the past, yoga and meditation found to improve the overall mood (Shapiro and Cline, 2008) of the person, helps in improving emotional wellbeing which ensures that people satisfied with their lives (Hartfiel et al., 2011). Further studies have also reported about the importance of yoga in reduction of aggression, anxiety and anger levels (Narendra et al., 2008; Yoshihara et al., 2011) thus help in management of anger. Some studies have also indicated that with the use of yoga as a stress-management technique, indicated to improve the overall attention span (Rangan et al., 2009) of the individual and improved emotional wellbeing.

Every doctor advises the patients to take rest along with medicines. The reason being that 'rest' is that medicine which is helpful for curing every ailment. But people don't know how to relax or rest. Thus, meditation is helpful and effective in curing every disease. Diseases such as asthma, blood pressure, paralysis etc. have been noticed to subside from the practice of meditation. Meditation energizes you, improves your capacity to live and work and helps in improving physical vitality. Dr. Kelly Brogan, holistic women's health physician, describes those changes as decreased heart rate, blood pressure, rate of breathing, muscle tension, she adds that this "relaxation response" can combat stress, a part of "what is actually driving chronic diseases such as auto-immune, cardiovascular and psychiatric pathology" (Brogan, 2014). Jayasinghe, 2004 stated that one may "conclude that yoga can be beneficial in the primary and secondary prevention of cardiovascular disease and that it can play a primary or a complementary role in this regard.

Our capacity to work definitely increases with meditation. There are many reasons for this: the more the body can relax, the more it can work. A calm mind can think in new direction and it become more creative. A relaxed mind is also beneficial for physical health. Along with concentration, awareness arises. And because of awareness, the intellect becomes sharp. Achieving

success in the external world thus becomes extremely easy. If the nervous system is tension-free, its capacity increases to the maximum and its efficiency is also enhanced. Meditation in managing stress can be explained by physiological changes that take place in both brain and the body. In recent Harvard-based neuroscientist Dr. Sara Lazar explains that, “meditation can literally change your brain” by increasing the size of the hippocampus, which is associated with learning and memory, and the temporal-parietal junction, which is associated with empathy and compassion. Meditation also brings about a great change in your listening power. With constant meditation, you may be able to detect things differently. You are able to realize your mistakes due to which you caution so as not to repeat them again in your life. Meditation teaches us to benefit from the present.

Yoga particularly has a positive effect on fitness and physical flexibility with a secondary effect on mental state, while *pranayama* practices and relaxation meditation techniques may result in greater awareness, less stress, and higher well-being and quality of life (Roland et al. 2011).

Conclusion

To conclude from the study of different researchers and spiritual gurus, yoga and meditation has a positive impact on improved mood, reduced stress, lesser psychological distress, improved concentration, decision-making power, and an improved ability to do something new. Yoga may help to improve self-efficiency, self-competence, physical fitness, etc. and its overall impact on our health, happiness, success, harmony, and joy in life.

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Univariate, Multivariate Data Analysis And Interpretation: Statistical Product And Service Solutions

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Abstract

In this paper we are focusing on Application of Statistics and Computer in Research. In research descriptive statistics is used to describe a set of data in terms of its frequency of occurrence, its central tendency, and its dispersion. Also the description of data is important and fundamental to any analysis, it is not sufficient to answer many of the most interesting problems that researchers encounter. The researcher must move beyond descriptive statistics and into the realm of inferential statistics and particularly, on to the statistical procedures that can be employed to arrive at conclusions extending beyond the sample statistics themselves. A basic aim of inferential statistics then is to use the sample scores for hypothesis testing and provide rigorous and logically sound procedures. The researcher is faced with a multitude of statistical procedures to choose from the choice of an appropriate statistical test is generally based on just two primary considerations: 1) The nature of the hypothesis and 2) The levels of measurement of the variables to be tested.

Key Words: Univariate, Multivariate, Statistics and SPSS.

Introduction:

SPSS, which stands for Statistical Product and Service Solution formerly Statistical Package for the Social Sciences is an integrated system of computer programs designed for the analysis of social sciences data. It is one of the most popular of the many statistical packages currently available for statistical analysis. Its popularity stems from the following features of the program: It allows for a great deal of flexibility in the data format. It provides the user with a comprehensive set of procedures for data transformation and file manipulation. It offers the researcher a large number of statistical analyses processes commonly used in social sciences. For both beginners and advanced researchers, SPSS is an indispensable tool. Not only is it an extremely powerful program, it is also relatively easy to use once the researcher has been taught the rudiments. The Windows version of SPSS has introduced a point-and-click interface that allows the researcher to merely point-and-click through a series of windows and dialog boxes to specify the kind of analysis required and the variables involved.

(a) Multiple response:

Analysis allows the researcher to analyze research questions that can have multiple responses. For example a researcher may ask respondents to name all the newspapers read within the last week, or to circle all newspapers read within the last week from a list of newspapers.

(i) Methods Of Multiple Response Procedures:

There are two ways to perform a frequency run with multiple response data. Whichever way the researcher chooses, the procedure will involve combining variables into groups. One way to organize multiple-response data is to create, for each possible response, a variable that can have one of two values, such as 1 for yes and 2 for no; this is the multiple dichotomy method. Alternatively, on the basis of the responses collected from all respondents, the researcher can create variables to represent, for example, all the newspapers read, Each variable will have a value representing that newspaper such a 1 for Times of India, 2 for Indian Express and 3 for Maharashtra Times. This is the multiple response method.

(ii) Cross-Tabulations:

Cross-tabulations can be produced by Multiple Response. Both individual and group variables can be tabulated together. Using the earlier example, suppose the researcher wants to cross-tabulate the variable reasons for preferring that part with the between groups variable of SEX (Coded 1 = male, 2= female).

(B) General Linear Model Multivariate Analysis:

In experiments involving multiple independent variables and one dependent variable, the general linear model univariate analysis of variance is usually used to answer questions about the

effects of the independent variables on the dependent variable. The GLM univariate analysis of variance can be conducted separately for each of the four dependent variables, the GLM multivariate analysis of variance is more appropriate. Unlike univariate tests, GLM multivariate analysis takes into account the interrelation among dependent variables and analyzes the variables simultaneously.

(i) Requirements:

*Depending on the research question and hypotheses to be tested the experiment can include or exclude "Classification" on independent variables.

*When independent variables are included, there can be two or more levels for each independent variable.

*There should be two or more dependent variables.

(ii) Assumptions:

*The observations must be independent (i.e. responses among groups of respondents should not be correlated).

*The variance covariance matrices must be equal for all treatment groups.

*The set of dependent variables must follow a multivariate normal distribution.

(C) Correlation:

Correlation is primarily concerned with finding out whether a relationship exists and with determining its magnitude and direction. When two variables vary together, such as loneliness and depression, they are said to be correlated. To quantitatively express the extent to which two variables are related, it is necessary to calculate a correlation coefficient. There are many types of correlation coefficients and the decision of which one to employ with a specific set of data depends on the following factors:

*The level of measurement on which each variable is measured

*The nature of the underlying distribution.

*The characteristics of the distribution of the scores.

(i) Assumptions:

*For each subject in the study, there must be related pairs of scores, i.e. if a subject has a score on variable X then the same subject must also have a score on variable Y.

*The relationship between the two variables must be linear, i.e. the relationship can be most accurately represented by a straight line.

*The variables should be measured at least at the ordinal level.

*The variability of scores on the Y variable should remain constant at all values of the X variable. This assumption is called homoscedasticity.

(D) Linear Regression:

Regression and correlation are closely related. Both techniques involve the relationship between two variables, and they both utilize the same set of paired scores taken from the same subjects. However, whereas correlation is concerned with the magnitude and direction of the relationship, regression focuses on using the relationship for prediction.

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(E) Factor Analysis:

The major aim of factor analysis is the orderly simplification of a large number of inter-correlated measures to a few representative constructs of factors. The primary function of factor analysis is to identify these clusters of high inter-correlations as independent factors. There are three basic steps to factor analysis:

*Computation of the correlation matrix for all variables.

*Extraction of initial factors.

*Rotation of the extracted factors to a terminal solution.

SPSS provides six methods of extraction under the common factor analysis model; these are Principal-axis factoring, un weighted least-squares, generalized least-squares, maximum- likelihood, alpha factoring, and image factoring.

(i) Requirements:

*Variables for factor analysis should be measured at least at the ordinal level.

*If the researcher has some prior knowledge about the factor structure, then several variables should be included to represent each proposed factor.

*The sample size should be 100 or larger. A basic rule of thumb is to have at least five times as many cases as variables entered into the factor analysis. A more acceptable range would be a ten- to- one ratio.

(ii) Assumptions:

The assumptions underlying factor analysis can be classified as statistical and conceptual.

Statistical Assumptions: Statistical assumptions include normality and linearity and sufficient significant correlations in data matrix.

*Normality and Linearity: Departures from normality and linearity can diminish the observe correlation between measured variables and thus degrade the factor solution.

*Sufficient significant correlations in data matrix: The researcher must ensure that the data matrix has sufficient correlations to justify the application of factor analysis. If visual inspection reveals no substantial number of correlations of 0.33 or greater, then factor analysis is probably inappropriate.

Conceptual Assumptions:

Conceptual Assumptions include selection of variables and homogeneity.

*Selection of variables: Variables should be selected to reflect the underlying dimensions that are hypothesized to exist I the set of selected variables. This is because factor analysis has no means to determine the appropriateness of the selected variables other than the correlations among the variables.

*Homogeneity: The sample consists of two or more distinct groups separate factor analysis should be performed.

(F) Reliability:

The reliability of a measuring instrument is defined as its ability to consistently measure the phenomenon it is designed to measure. Reliability, therefore, refers to test consistency. The importance of reliability lies I the fact that it is a prerequisite for the validity of a test. Simply put for the validity of a measuring instrument to be supported, it must be demonstrably reliable.

Any measuring instrument that does not reflect some attribute consistently has little chance of being considered a valid measure of that attribute. Several methods exist for determining the reliability of a measuring instrument. These methods may be divided into two broad categories: External consistency procedures, and internal consistency procedures.

(i) External Consistency Procedures:

External consistency procedures utilize cumulative test results against themselves as a means of verifying the reliability of the measure. Two major methods of determining the reliability of a test by external consistency are:

*Test-retest: Test results for a group of people are compared in two different time periods.

*Parallel forms of the same test: Two sets of results from equivalent but different tests are compared.

(ii) Internal Consistency Procedures:

Internal consistency refers to the extent to which the items in a test measure the same construct. Items that measure the same phenomenon should logically cling/hand together in some consistent manner. Examining the internal consistency of the test enables the researcher to determine which items are not consistent with the test in measuring the phenomenon under investigation. The object is to remove the inconsistent items and improve the internal consistency of the test. An internally consistent test increases the chances of the test being reliable. Three major methods of determining the reliability of a test by internal consistency are:

*Split-half technique: This method correlates one half of the test items with the other half. The higher the correlation, the more internally consistent the measure. The Spearman-Brown formula is widely used in determining reliability by the split-half method.

*Cronbach's alpha: This is a single correlation coefficient that is an estimate of the average of all the correlation coefficients of the items within a test. If alpha is high (0.80) or higher, then this suggests

that all of the items are reliable and the entire test is internally consistent. If alpha is low, then at least one of the items is unreliable, and must be identified via item analysis procedure.

(G) Multiple Regression:

Multiple regression is a statistical technique through which one can analyze the relationship between a dependent or criterion variable and a set of independent or predictor variables. As a statistical tool, multiple regression is frequently used to achieve three objectives.

*To find the best prediction equation for a set of variables; i.e. given X and Y (the predictors) what is Z (the criterion variable)?

*To control for confounding factors to evaluate the contribution of a specific variable or set of variables, i.e. identifying independent relationships.

*To find structural relationships and provide explanations for seemingly complex multivariate relationships, such as is done in path analysis.

(i) Types of Multiple Regression Method:

There are three major types of multiple regression technique: standard multiple regression, hierarchical regression and statistical regression. They differ in terms of how the overlapping variability due to correlated independent variables is handled and who determines the order of entry of independent variables into the equation.

(ii) Requirements:

*The size of the sample has a direct impact on the statistical power of the significance testing in multiple regression.

*The measurement of the variables can be either continuous or dichotomous nonmetric.

(H) Structural Equation Modeling:

Structural equation modeling (SEM) is a multivariate technique that can best be described as a combination of both factor analysis and path analysis. It is a statistical technique that allows the analyst to examine a series of dependence relationships between exogenous variables and endogenous variables simultaneously. An endogenous variable, on the other hand, is one whose variation is to be explained by exogenous and other endogenous variables in the casual model. The usefulness of SEM in research is distinguished by three characteristics:

*It Provides a method of dealing with multiple relationships simultaneously.

*It is able to represent unobserved concepts in the analysis of dependence relationships.

*It improves statistical estimation by accounting for measurement error in the estimation process.

Conclusion:

In this paper, I have present the use of application of statistic and computer in research and also focus on computer Application in Multivariate Analysis.

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Role Of Physical Education In Enhancing The Performance Of Players

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Abstract

For so many years Physical education and sports are the main parts of our program of study. In spite of being having its relevant aspect in our life it was ignored by the each part of the society like administration, professionals, and students. In physical education, we deal with the theoretical and practical aspects as well. General concept of society regarding physical education is not so good. People think that playing is just a wasting of time that is ironically wrong. We use our time when we are under games situations and that must be considered fullest utilization of time devoted to that task. Swami Vivekananda once said, "Sound mind in a sound body" which means a lot. Its hard to get optimum result of mind without the collaboration of our body. Awareness about health need to be spread to get maximum out put from physical education and sports. So hurdle on the way of sports must be removed so that to enlighten the society with the brightest light of sports.

Keywords: sports, training, curriculum, students, infrastructure.motivation

Introduction:

Now that being the part of total education process physical education and sports have great impact on the physical as well as mental development of children. Many contemplate that physical education is less significant field in whole curriculum but it is as important as other subjects such as science and math. Curriculum is supposed to be designed in such a way that physical activities become a part of daily lesson plan. Sports are among the highlights of media these days and it is turning to be a big industry in the world. In spite of being ignored by majority of people in society, sports have noteworthy influence on most of them, directly or indirectly. Lots of issues which adversely affects the sports need to be settled. Cooperation with the advanced countries is required in these regard because we are not up to mark in sports field so far. We must set up an agenda of action plan for the encouragement and expansion of physical education and sports.

Meaning of physical education:

The survival of human being is primarily physical. The first lesson a human child learns is a lesson of physical activity. No education, however ideal and decorous in its objectives without stress on motor activity. The human body is a gift of nature. Its growth, development and competency is mostly depend upon the quantity and quality of motor activities it performs. In this context the word physical refers to body and indicates body characteristics such as strength, speed, endurance, health, performance etc.

Some people are often flawed in defining physical education. They often guess that physical education is sports education. Simply but physical education is a process of education through physical activity. Way of physical education is different from education as it tries to fulfill it through the medium of physical exertion. In a broader context, physical education is defined as process of learning through physical activities designed to enhance physical fitness, develop cognitive skills, knowledge and behavior of healthy and active living, sportsmanship and emotional intelligence. Thus, physical education not only aimed at physical development but also includes all round development of the individual in fact physical education means many things to different peoples, because it has been defined in various ways. But, to understand the meaning of physical education some point of definitions are given below,

- Brown Hill and Hangman, regarded physical education as “the accumulation of wholesome experiences through participation in large muscle activities that promote growth and development”.
- J.B Nash explains “physical education is that phase of whole field of education that deals with big muscle activities and their related responses.”
- AAPHER platform says, “physical education is the way of education through physical activities which are related and carried on with regard to vales in human growth development and behaviors.”

Thus, from an overview of the above definitions and other definition the following silent features of physical education emerge.

1. Physical education is an important and integral part of total education practice.
2. Movements or activities or games and sports are the means of wholesome experience and physical education.
3. Physical education aims to develop physically, mentally, emotionally and socially fit citizens through physical activities.
4. Physical education and their activities are based on systematic planning and scientific theory.

Thus, on the basis of above points physical education is defined as, “ an education by means of physical activities involving big muscle, body limes and joint of an individual aimed towards the development of body and mind.

Why sports culture should be highlighted?

Some of researcher also suggests that being involved in sports may raise the employability level of young people by development specific core and soft skills in India, we are nowhere near major sporting nations like GREATBritain, USA or Australia in the sporting arena, but the growth and development over the last 8-9 years is quite hopeful. Sports companies catering to grass roots coaching and sponsorship are quickly increasing everywhere. One important aspect which needs due attention, especially by coaching companies who are working with young children, is to educate parents and other beneficiary about sports and its benefits. Nowadays, there is self-realization amongparents that there is hugof physical activities for their children, so there core objective is to address that aspect when they are enrolling their children to any training centre.

As per studies by different government agencies currently, approximately only 0.07 percent of the Indian population exercise on a regular basis. The average cardiac attack age in India is 45-50 years, and every third child is suffering from obesity. To make the situation even more alarming for the Indian society, it is highlighted by a recent government research that children are spending 8.2 hrs studying (no physical activities) against only 40 min in playing activities in a day.

According to the estimate of the planning commission of India by 2018 India will have approximately 510 million people in the age group of 15 to 35 years, making India the youngest population in the world which is not healthy.

Sports pathway in India

Sports education should start at the nursery level where children can be introduced to the concept of sports, then fun time with sports and then the various other aspects. The programmedneedto be audio-visual as children are strongly influenced by audio-visual clips / films. This should be done with the help of parents and teacher together.

Sports education is required more than ever as more people have started becoming aware of sports compared to the situation 10-15 years ago. Sports education programs need due attention of all stakeholders in sports. Many people may think that sports are just a casual time-pass activity or a way to be fit, but in reality, sports are a way to live life with full enthusiasm.

Trend in physical education

Trend in the physical education has been changed recently in a manner that students are being introduced with other activities like bowling, hacking and walking and these may turn to be a habit during later stage of life. Stress which is a common phenomenon in general life and sports as well is being reduced through yoga.

The trend of health and nutrition to the physical education curriculum is in early stage. All schools districts with a central funded school meal program develop wellness policies that address nutrition and physical activity. Quality physical education programs will benefit the life style of young people. It is more important for the elementary classes because they have no health and nutritional specific classes. Health and physical education classes are now added in the curriculum of primary schools.

The importance of Physical Education for Indian children

Structured physical education must be made an integral parts of school curriculum in India. For such a young and socio-economically diverse population, PE through schools can become a powerful holistic development tool for Indian children. Most schools in India have failed to integrate structured physical education into the school curriculum.Focus is on main stream subjects, as schools fail to see how a structured PE curriculum can add to the development of young children, by aiding in

their physical, mental, emotional and social growth. With 30.5% of Indians population under 14 years old. PE must be utilized as an effective tool for the holistic development of Indian children, from diverse socio-economic backgrounds. The obvious benefit of PE, of keeping children fit, active and healthy, is particularly important for children living in urban India, from stronger economic backgrounds, where obesity has become a major issue. Regular PE promotes a culture of lifelong physical activity, important in ensuring that future generations stay fit and healthy. PE also promotes mental health, providing motivations and fighting depression, while helping in the emotional development of children. India's education system, unluckily, rotates around a dreadful competitive exam culture, putting immense pressure on students. Finally, PE ensures the social growth of children, by providing self-confidence, promoting leadership, teaching team work and encouraging inclusion and companionship. This value are hard to learn through textbooks, but can be taught practically and enjoyably through PE. Children living in rural India, from weaker economic backgrounds, and in particular, girls are deprived groups who receive limited exposure and opportunities, and will greatly benefit from the social benefits of PE.

It is important that the various stakeholders of schools, including management, teachers, parents, students and the education ministry recognize the role that PE can play in the development of the children, and prepare a roadmap to introduce structured PE programs in school across India.

Conclusion

So keeping in mind the whole scenario of the world we have to say that lot of changes is needed in our curriculum. It should be constructed in such a way that to meet the latest demand of children. Popularity of sports should be spread so that youth of nation get involved in it. Parents, teachers, society and government should start a campaign to make sports a habit of every child only then it will be possible for us to put majority of youth in right direction to be a good citizen of our nation.

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A Study On The Physical Fitness Among Basket Ball And Hand Ball Players In Jalgaon

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Abstract:

The aim of the present study was to study the difference in Physical Fitness among Basket Ball and Hand Ball Players in Jalgaon. 20 Hand Ball Players and 20 Basket Ball Players between the age group of 18 Years to 21 Years of Osmania University were taken for the Study. The AAPHER Youth Fitness Test consisting of 6 Items were used for the Study. It was found that Hand Ball Players have good Physical Fitness compare to Basket Ball Players. This study shows that the Hand Ball Players are good because they do good Physical Training compare to Basket Ball Players. The Hand Ball Players are having very good speed, and endurance.

Key words:Physical fitness, speed, , endurance.

Introduction:

Physical fitness comprises two related concepts i.e. general and specific fitness. Physical fitness is generally achieved through correct nutrition, exercise and enough rest. There are so many benefits to be gained from participation in physical fitness and wellness rest. There are so many benefits to be gained from participation in physical fitness and wellness programs and people of all ages and both genders can derive benefits from such programs so as to help them to maintain higher quality of life. The most important benefits of physical fitness and wellness approach in the development of positive attitude that helps people to see life’s possibilities and to work for their attainment so as to make one’s life personality fulfilling and satisfying. It provides the basis for optimal physiological health and gives us the capacity to enjoy a full life.

Benefits of Physical Fitness: 1.Condition of Heart and Lungs by increasing the oxygen available to the body therefore enabling the heart to use oxygen more efficiently. 2. Development of physical fitness components such as strength, endurance, agility, flexibility etc. and improvement of muscle tone. 3. Fosters correct posture, figure, body image and physical appearance. 4. Quick recovery after injury, illness and decrease the risk of cardio-vascular disease. 5. Reduces and controls body fat, exercise combined with a proper diet will reduce body fat and also fulfill proper nutritional requirement. 6. Increase energy level of a person and helps to maintain ideal body weight. 7. Through Participation in physical fitness program, leisure (free) time is properly utilized. 8. Improve mood and reduce depression and anxiety. 9. Postpones fatigue and reduces recovery time after vigorous activity. 10. Helps people to meet challenges of life, make them self confident and postpones ageing process. The agility, balance, cardio-vascular endurance, flexibility, strength, power, etc., of the body will be to peak if well and good fitness are achieved. Fitness is the ultimate in life.

Aim: To find out the Physical Fitness among the Hand Ball and Soft Ball Players in Jalgaon. Sample:20 Hand Ball and 20 Basket Ball Players of North Maharashtra University those who have taken part in the. Inter College Tournaments has taken for the study.

Test Administration: To find out the Physical Fitness the AAPHER Youth Fitness Test consisting of the following Items are used in the study. 1.Pull Ups 2.Sit Ups 3.Shuttle Run 4.Standing Broad Jump 5.50 Yard Dash 6.600 Yard Run The above Tests are conducted among Hand Ball and Soft Ball Players.

Results And Discussion:

Table –I is Physical Fitness Showing the of Hand Ball Players and Basket Ball Players.It is found that the Hand Ball Players are good in 50 Yard Dash,600 Yard Run, Standing Broad Jump and Situps and Basket Ball Players are good in Pull Ups and Shuttle Run. Hand Ball Players are Playing in the ground that is why the physical fitness is good compare to the Basket Ball Players.

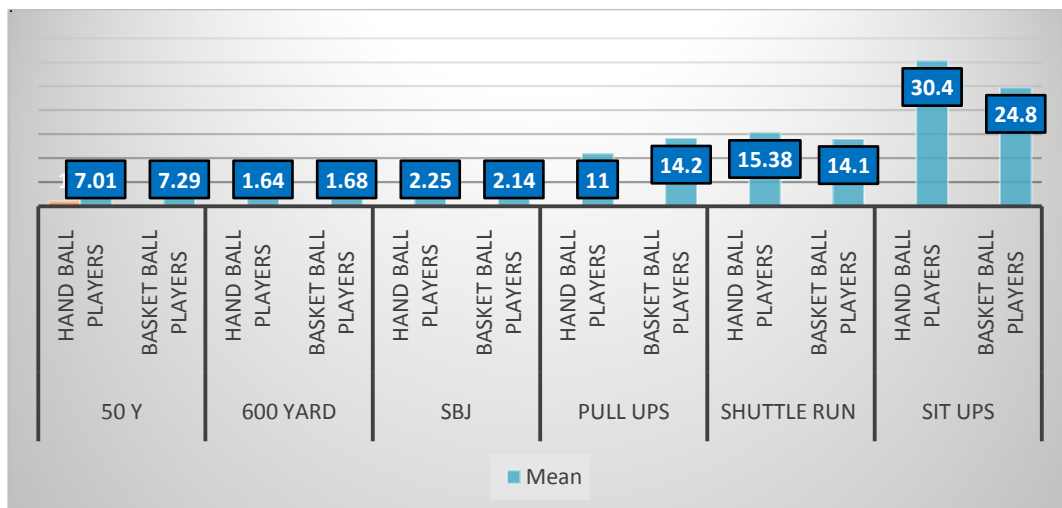
Table - I

TEST	Group	N	Mean	Std.Deviation	Std.Error	t	Df	Sig.(2-tailed)
50 Y	Hand Ball Players	20	7.01	0.24	0.08	-1.81	18.00	0.09
	Basket Ball	20	7.29	0.46	0.15			

	Players							
600 Yard	Hand Ball Players	20	1.64	0.19	0.06	-0.36	18.00	0.72
	Basket Ball Players	20	1.68	0.20	0.06			
SBJ	Hand Ball Players	20	2.25	0.11	0.04	3.62	18.00	0.00
	Basket Ball Players	20	2.14	0.05	0.02			
Pull Ups	Hand Ball Players	20	11.00	0.94	0.30	-4.71	18.00	0.00
	Basket Ball Players	20	14.20	1.14	0.36			
Shuttle Run	Hand Ball Players	20	15.38	1.21	0.38	2.54	18.00	0.02
	Basket Ball Players	20	14.10	0.57	0.18			
Sit Ups	Hand Ball Players	20	30.40	2.63	0.83	4.35	18.00	0.00
	Basket Ball Players	20	24.80	2.29	0.92			

Figures

Figures are showing Physical Fitness Showing the of Hand Ball Players and Basket Ball Players



Recommendations: The Hand Ball Players and Basket Players must be given good Physical conditioning Training to enable them to improve the performance in sports and Games.

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Effect Of Plyometric Training On Leg Strength Of Men Cricket Players

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Abstract

Cricket is a popular team game that is widely played in most of the commonwealth countries. Previously, this game was played only during a particular season. This game was played during winter season in Asian countries and during summer season in western countries. In the recent years, the game has become very popular and it is now played throughout the year in almost many countries. The purpose of the present study was to determine the effect of plyometric training on leg strength of men cricket players. Thirty male students (n = 30) were randomly selected from the department of physical education of Annamalai university of Tamil Nadu state as subjects and their age was ranged between 18 and 22 years. The selected subjects were randomly assigned into two equal groups namely control group (CG) and the experimental group (EG) with equal strengths of fifteen (n= 15) each. Experimental training group underwent plyometric training for twelve weeks for five days per week and two sessions on each day. The control group did not involve in any special training apart from their regular activities. The leg strength was taken as a criterion variable for the present study and it was measured by dynamometer. A t-test was applied to analyse the collected data. The results revealed that the plyometric training was made significant improvement in leg strength of the selected subjects. The level of confidence was fixed at 0.05 in all cases.

Keywords: plyometric training, leg strength, cricket

Introduction

Cricket has a very long tradition and has proud history. Previously cricketers assumed to have less fitness but now cricket gives a sound base to improve the level of fitness of the player. In recent years, modern cricket has waked up to the benefits of well trained and conditioned athletes. Even more recently, the advent of Cricket-specific training is producing faster, stronger and more agile players than ever before. For a good performance, physical conditioning in cricket is highly essential. Proper approach to coaching ought to be supported by the data of the precise requirements of the performance and on the development of specific training means.

Plyometric training is an excellent way to develop both strength and power in the muscles involved in sprinting. Many athletes have superior strength but cannot produce the need power to sprint a fast 40 yard dash. Plyometric training is designed to bridge the gap between strength and power and to improve the explosive action of leaping from one foot to another, which we call sprinting (George, 1988). In Plyometrics a shortening (concentric) contraction that immediately follows a lengthening (eccentric) contraction will utilize the elastic energy stored in that muscle during the stretching. In turn the utilization of the elastic energy will result in greater force production in a shorter period of time; hence it provides the optimum relationship between speed and strength, which will ultimately manifest itself, as explosive power (Gambetta, 1987). Leg strength is the capacity of the lower limb to exert muscular force (Ted and Andrew, 1987)

Materials and Methods

The present study was to determine the effect of plyometric training on leg strength of men cricket players. Thirty cricket players (N = 30) were randomly selected as subjects from the department of physical education of Annamalai university of Tamil Nadu state. Their age was ranged between 18 and 22 years. The selected subjects were randomly assigned into two equal groups namely experimental group (EG) and the control group (CG) for the strengths of fifteen (N=15) each. Experimental training group underwent plyometric training for twelve weeks for five days per week with two sessions on each day. The control group did not involve in any special training apart from their regular activities. The training program consisted of two training duration (4 weeks of early pre season followed by 8 weeks of late pre season). In the early pre season 60% of training duration was dedicated to fitness development (36 hours) and 40% of training duration for basic skills (24 hours). In the late pre season 40% of training duration was dedicated to fitness development (48hours) and 60% of training duration for advance skills (72 hours). The leg strength was taken as a criterion variable for the present study and it was measured by dynamometer. The collected data were

statistically examined by analysis of t-test. The confidence level was fixed at 0.05 levels, which is appropriate to the present study.

Results

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre test	168.1333	30	5.52570	1.00885
	Post test	170.7333	30	6.07955	1.10997

Paired Samples Correlations

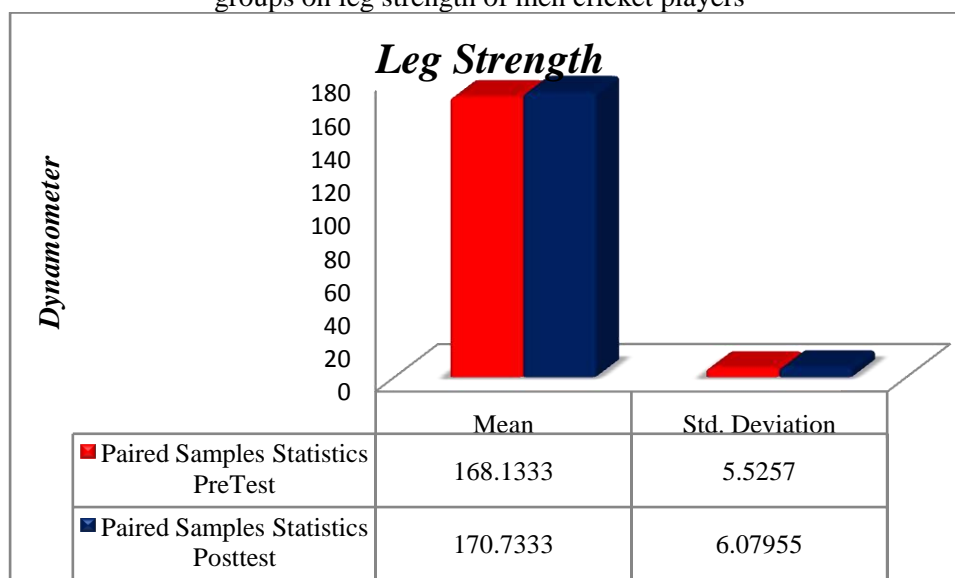
		N	Correlation	Sig.
Pair 1	Pre Test &	30	.913	.000
	Post-test			

Paired Samples Test

	Paired Differences				t	df	Sig. (2-tailed)	
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower				Upper
Pair 1 Pretest – Posttest	-2.60000	2.48582	.45385	-3.52822	-1.67178	-5.729	29	.000

In order to measure the level of leg strength of men cricket players, means and standard deviations were separately calculated. The findings indicated that there was a significant difference in leg strength of the experimental group when compared with the control group.

Bar diagram showing the pre and post test means and standard deviations of experimental and control groups on leg strength of men cricket players



The graph indicates that there is a significant change in leg strength of the experimental group when compared with the control group. After going through the results, it was concluded that the plyometric training has resulted in a significant change in leg strength of the men cricket players of the experimental group when compared with the control group.

Discussion

The result of the present study pointed out that there was a significant difference in leg strength of the men cricket players due to twelve weeks of plyometric training. The current study utilized twelve weeks training duration with ten sessions per week and found that leg strength increases due to plyometric training. The findings are also in agreement with the findings of **(Buchha, 2014)** that plyometric exercises increases the leg strength of cricket players. The result also shows that functional and plyometric training positively influences the explosive power and speed **(Murugan and Nageswaran, 2014)**, **Qureshi (2015)** also findings that there was a significant improvement on leg strength of cricket players due to plyometrics exercises. Several studies suggested that plyometrics exercises are very valuable for improving the leg strength of cricket players **(Vino and Kumaresan, 2012)**. From the results of the present study and literature, it is concluded that dependent variable namely leg strength was significantly increased due to plyometric training.

Conclusion

The result of the study revealed that the training group has significant improvement in leg strength of men cricket players after the plyometric training protocol. It was also concluded that this plyometric training is one of the best training methods for increasing the leg strength and as well as the physical fitness of cricket players.

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The Impact Of Jump Rope Exercises On The Stress Of 12 To 16 Years School Children

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Abstract

The main aim of this study is to find the effect of jump-rope exercises on the Stress of 12 to 16 years school children. Considering the mentioned objective, 40 students of B.I.P.S Bagalkot, Karnataka State are selected as cases for this study and they are randomly divided into training group and controlling group. The first group, participated in Jump Rope Exercise training process continued 8 weeks, while; the latter group did not participate in any exercise programs and continued with their daily activities.

Key words: Jump Rope Exercise, Stress

Introduction

Jump Rope Exercise is a low-cost physical activity, thus; its impact on the physical fitness is being studied by various researchers. Jump Rope Exercise involves the muscles in arms and legs, and it also improves cardiovascular function and metabolism. Rope is a portable tool and Jump Rope Exercise requires minimum space. On the other hand, Jump Rope Exercise is incredibly cheap compared to the other sports. In an earlier research the effect of jump-rope training on children with mental and visual disorders is being studied. The results have illustrated that Jump Rope Exercise improves their balance significantly. Current researches have also suggested that physical activity including Jump Rope Exercise, an improvement of stress management.

The aim of this study

The aim of this study is to find the effect of 8 weeks of Jump Rope Exercise on the Stress of 12 to 16 years school children.

Subjects And Methods

In order to gather the required data, 40 students between 12 to 16 years old of Bagalkot are selected. After calls in all B.I.P.S Bagalkot, Karnataka State, some families have accepted to participate in the study. The selected cases are divided into two groups (20 for each) which are training and controlling groups. The demographic characteristics of the subjects are presented in Table. The results of t-test have shown that the two groups have homogeneous age, height, weight and stress.

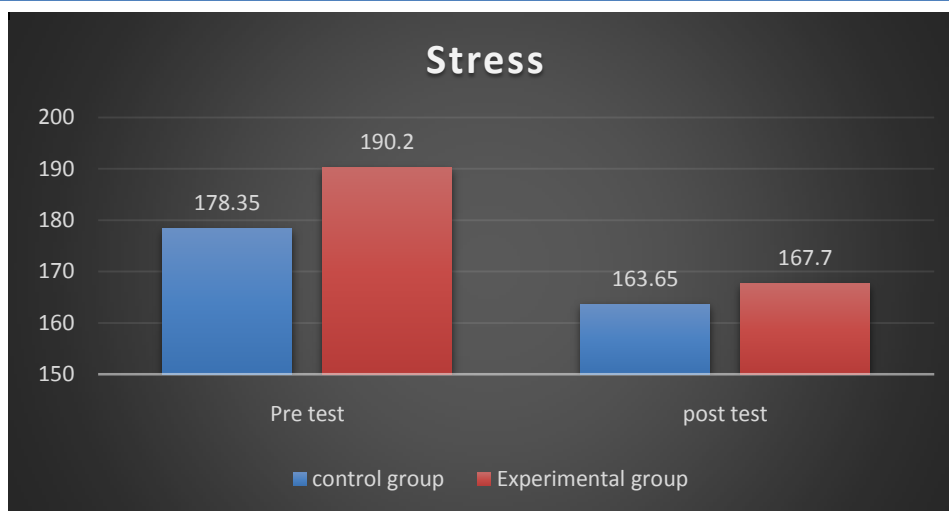
Table

Analysis of mean Standard deviation and 't'- value for Stress among control and experimental group of Jump rope exercise groups

Variable	Group	No	Mean		Std.deviation		df	t-value	Sig.
			Pre test	Post test	Pre test	Post test			
Stress	Control	20	178.35	163.65	15.52	16.78	19	3.125	.006
	Experimental	20	190.20	167.70	13.45	10.41	19	11.889	.000

Significant at 0.05 level, df=19, 't' 0.05=2.09

From the above table is clearly indicates that there was a highly significance difference in Stress between pre test and post test among Experimental group of school children as calculated t-value 11.88 > table value 2.09 at 0.05 level, in control group also shows there was slight significance stress index in Pre test and post test among control group as calculated t-value 3.12 > table value 2.09 at 0.05 group of jump rope training.



Bar graph representation of the mean values of Stress of the Control and Experimental groups in pre test and post test of jump exercise group

Discussion

Based on the findings of this study, 8 weeks of Jump Rope Exercise improves the stress of 12 to 16 years school children. This study also confirms the findings of the effect of Jump Rope Exercise on these stress measurements were conducted 8 weeks after the experiment concluded. The experimental group and control group showed significant differences in Stress. Therefore, the results of this study suggest that jump rope exercise is effective for the improvement in management stress, and this exercise can help maintain the physical fitness. However, this study has some limitations: The research subjects included only school children, and the experiment was implemented using only jump rope exercise.

Results And Conclusion

This study indicates that there was a highly significance difference in Stress between pre test and post test among Experimental group of school children as calculated t-value $11.88 >$ table value 2.09 at 0.05 level, in control group also shows there was slight significance stress index in Pre test and post test among control group as calculated t-value $3.12 >$ table value 2.09 at 0.05 group of jump rope training. According to the obtained results, it is concluded that, Jump Rope Exercise can management the stress of 12 to 16 years school children.

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Effect Of Sleep Deprivation On Performance Among Varsity Level Female Volleyball Players

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Abstract

Objective: The objective of this work was to evaluate effect of Sleep deprivation on performance variables among university level female players of volleyball.

Method: A total of twenty (20) varsity level volleyball players selected randomly from physical education department, Annamalai University, formed the experiment & control group. Pre-post tests were considered to reach an appropriate conclusion.

Result: According to the present study, to some extent there is a significant effect of Sleep deprivation on performance of volleyball players.

Conclusion: Sleep deprivation is somehow responsible or effective on some of the selected performance variables of female volleyball players.

Key words: Sleep Deprivation, Volleyball, Performance

Introduction

If you've ever spent a night tossing and turning, you already know how you'll feel the next day — tired, cranky, and out of sorts. But missing out on the recommended 7 to 9 hours of shut-eye nightly does more than make you feel groggy and grumpy. The long term effects of sleep deprivation are real. It drains your mental abilities and puts your physical health at real risk. Science has linked poor slumber with all kinds of health problems, from weight gain to a weakened immune system. Your body needs sleep, just as it needs air and food to function at its best. During sleep, your body heals itself and restores its chemical balance. Your brain forges new connections and helps memory retention. Without enough sleep, your brain and body systems won't function normally. It can also dramatically lower your quality of life. A review of 16 studies found that sleeping for less than 6 to 8 hours a night increases the risk of early death by about 12 percent.

The obvious signs of sleep deprivation are:

- excessive sleepiness
- yawning
- irritability
- daytime fatigue

Sleep deprivation leaves your brain exhausted, so it can't perform its duties as well. You may also find it more difficult to concentrate or learn new things. The signals your body sends may also come at a delay, decreasing your coordination skills and increasing your risks for accidents. Sleep deprivation also negatively affects your mental abilities and emotional state. You may feel more impatient or prone to mood swings. It can also compromise decision-making processes and creativity.

Sleep deprivation also prompts your body to release higher levels of insulin after you eat. Insulin controls your blood sugar level. Higher insulin levels promote fat storage and increase your risk for type 2 diabetes.

Sleep affects processes that keep your heart and blood vessels healthy, including your blood sugar, blood pressure, and inflammation levels. It also plays a vital role in your body's ability to heal and repair the blood vessels and heart.

Sleep is critical to physical recovery and gains in physical performance. However, sleep problems increase your risk of physical illnesses and debilitating health conditions such as hypertension, diabetes, and chronic pain. Sleep loss can reduce your motivation to engage in physical exercise as well. You also might experience decreased coordination and poor physical performance, which can compromise your physical readiness and affect injury risk.

An important final note on sleep and performance loss: You might think you're functioning just fine, but other objective measures of performance might suggest otherwise. Within the society many are conditioned to believe that sleep is a luxury. In fact, it's a basic building block of health and

well-being. Your awareness of how sleep loss affects your performance is critical to building healthy sleep habits.

Performance Abilities

An ability to perform quickly and purposefully in a different or difficult comprehensive movement structure. In this context, coordinative abilities are understood as an extremely visible manifestation (a clear appearance) of controlled and the regulated process of a motor activity of the central nervous system. Coordination ability is used for maximal utilization of technical skill and tactical skill.

Classification:

1. **Orientation:** The ability that enables athlete to anticipate and change the position of his body with relation to time and space.
2. **Coupling:** An ability to coordinate body part movement with relation to defined target.
3. **Reaction:** Athlete’s ability to respond towards a signal both quickly and effectively.
4. **Balance:** It is defined as the athlete’s ability to sustain balance and also retain balance rapidly once it is disturbed.

Statement Of The Problem

The research problem was stated as “effect of sleep deprivation on performance variables among varsity level female volleyball players”.

Hypothesis:

There would be a significant effect of Sleep deprivation on performance variables of university level female volleyball players

Significance:

The finding would emphasise on adopting Sleep Deprivation as one of the means of developing or by which means performance of players may not alter after sleep loss due to fear of losing competition, opposite player being stronger than you or over confidently waiting for competition, among volleyball players. The study is highlighting a particular set of performance variables that can be improved or upheld through adaptation to Sleep deprivation.

Methods

Sampling And Design Of The Study (Static group comparison design)

The research was applied on college level players. The study was designed for 48 hours of sleep loss. There were 20(Twenty) samples by a random pattern from the available girls. The randomly selected trainees were further clubbed in experiment and control groups. The experiment group is assigned for the 48 hours of sleep deprivation for checking the effect on performance variables of players. Random group design method was used.

Administration

The study is designed for checking the effect of Sleep deprivation on performance variables. The experiment group was assigned to a 48 hours of sleep loss while control group had normal 7-9 hours of sleep.

Results & Analysis

For finding the effect of Sleep deprivation on pre-determined variables, analysis of co-variance was done on the treatment & control groups. Incase of significant f-ratio, LSD was calculated on post hoc measure.

The data was processed using SPSS (VERSION 16). The related results and the graphical representation of the data is presented as under;

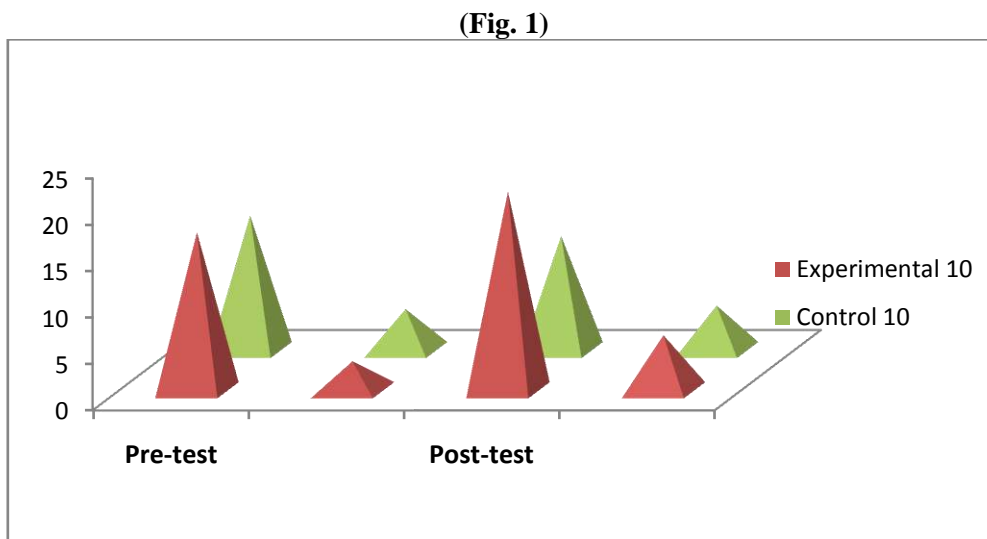
1. Balance

Pre & post-test (48 hours) score of comparative groups on balance is presented in table no.1.

(Table 1)

GROUPS	S	Pre		Post	
		Mean	SD	Mean	SD
Treatment	10	17.0470	3.12419	21.451	5.94175
Control	10	14.5480	4.42535	12.324	4.80881

Mean comparison of treatment & control groups on balance.



Pairwise Comparison

Dependent Variable: BALANCE POST

(Table 2)

(a) GROUP	(b) GROUP	Mean Difference	Std. Error	Sig.	Confidence at 95% Interval Difference	
					Lower Bound	Upper Bound
Control	Exp	-7.645*	2.387	.005	-12.680	-2.610
Exp	Control	7.645*	2.387	.005	2.610	12.680

The estimated marginal means

*Level of significant mean difference at .05

a. Adjustment of multiple comparisons: LSD (equivalent to no adjustments).

(Table 3)

	DF	SS	MSS	F	SIG. LEVEL
Corrected Model	2	509.393	254.696	10	0.001
Intercept	1	56.822	56.822	2.231	0.154
Pre	1	92.882	92.882	3.647	0.073
Group	1	261.332	261.332	10.261	0.005
Error	17	432.979	25.469		
Total	20	6646.125			
Corrected Total	19	942.372			

2. Coupling

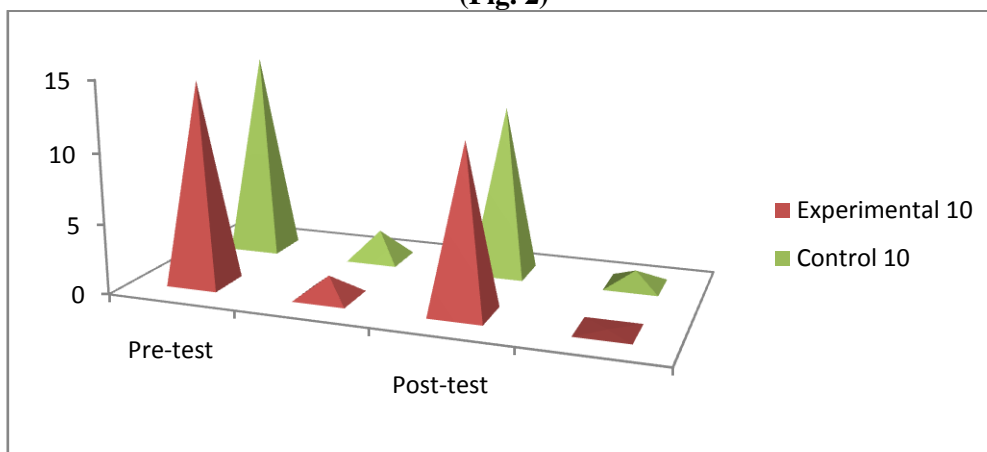
Pre & post-test (48 hours) score of treatment & control group on coupling is presented in table no.4.

(Table 4)

GROUPS	S	Pre		Post	
		Mean	SD	Mean	SD
Treatment	10	14.5010	1.49798	11.735	.078157
Control	10	14.6360	2.07138	12.106	1.06848

Mean comparison of treatment & control group on coupling.

(Fig. 2)



Pairwise Comparison

Dependent Variable: COUPLING

(Table 5)

(a) Group	(b) Group	Mean Difference	Std. Error	Sig.	Confidence at 95% Interval Difference	
					Lower Bound	Upper Bound
Contro 1	Exp	.357	.423	.410	-.534	1.249
Exp	Contro 1	-.357	.423	.410	-1.249	.534

The estimated marginal means:

Adjustment of multiple comparisons: LSD (equivalent to no adjustments).

(Table 6)

	DF	SS	MSS	F	SIG. LEVEL
Corrected Model	2	1.311	0.655	0.735	0.494
Intercept	1	29.683	29.683	33.308	0
Pre	1	0.623	0.623	0.699	0.415
Group	1	0.637	0.637	0.714	0.41
Error	17	15.15	0.891		
Total	20	2858.427			
Corrected Total	19	16.461			

3. Orientation

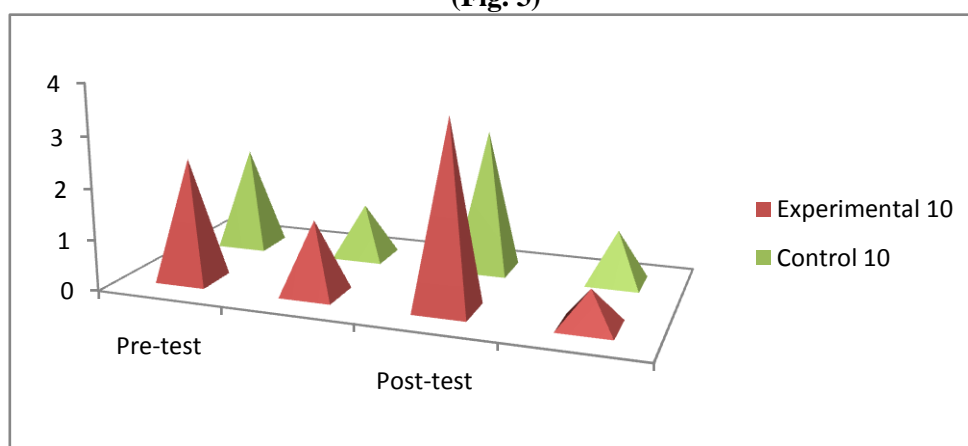
Pre& post-test (48 hours) score of treatment & control group on orientation is presented in table no.7.

(Table 7)

GROUPS	S	Pre		Post	
		Mean	SD	Mean	SD
Treatment	10	2.4000	1.4298	3.6	0.69921
Control	10	2.0000	1.0540	2.8	1.0328

Mean comparison of treatment & control groups on orientation.

(Fig. 3)



Pairwise Comparison

Dependent Variable: ORIENTATION

(Table 8)

(a) Group	(b) Group	Mean Difference	Std. Error	Sig.	Confidence at 95% Interval Difference	
					Lower Bound	Upper Bound
Control	Exp	-.792	.411	.071	-1.659	.076
Exp	Control	.792	.411	.071	-.076	1.659

The estimated marginal means

Adjustment of multiple comparisons: LSD (equivalent to no adjustments).

(Table 9)

	DF	SS	MSS	F	SIG. LEVEL
Corrected Model	2	3.213	1.606	1.952	0.172
Intercept	1	45.117	45.117	54.834	0
Pre	1	0.013	0.013	0.015	0.903
Group	1	3.047	3.047	3.703	0.071
Error	17	13.987	0.823		
Total	20	222			
Corrected Total	19	17.2			

4. Reaction

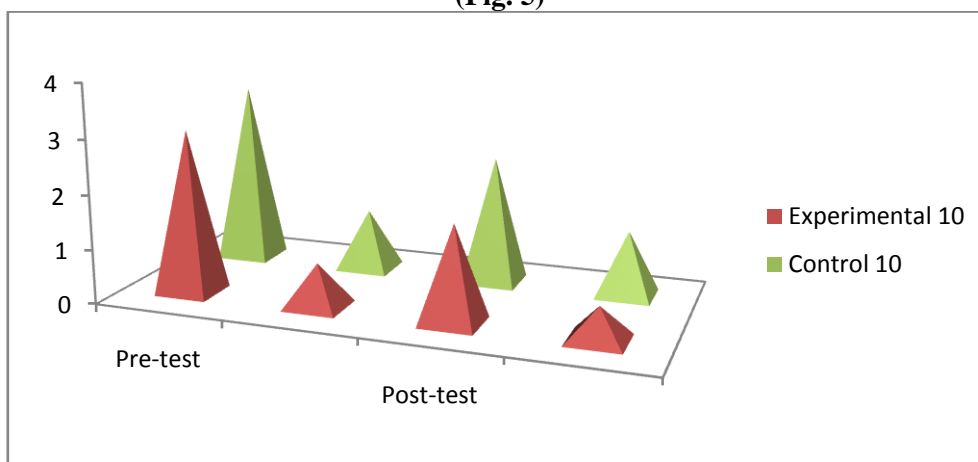
Pre & post-test (48 hours) score of treatment & control group on reaction is presented in table no.10.

(Table 10)

GROUPS	S	Pre		Post	
		Mean	SD	Mean	SD
Treatment	10	3.0230	.79944	1.772	0.60426
Control	10	3.3750	1.12594	2.356	1.20057

Mean comparison of treatment & control groups on reaction

(Fig. 5)



Pair wise Comparisons

Dependent Variable: REACTION

(Table 11)

(a) Group	(b) Group	Mean Differenc e	Std. Error	Sig.	Confidence at 95% Interval Difference	
					Lower Bound	Upper Bound
Contro l	Exp	.444	.407	.290	-.413	1.302
Exp	Contro l	-.444	.407	.290	-1.302	.413

The estimated marginal means

Adjustment of multiple comparisons: LSD (equivalent to no. adjustments).

(Table 12)

	DF	SS	MSS	F	SIG. LEVEL
Corrected Model	2	4.403	2.202	2.76	0.092
Intercept	1	0.979	0.979	1.228	0.283
Pre	1	2.698	2.698	3.382	0.083
Group	1	0.953	0.953	1.195	0.29
Error	17	13.561	0.798		
Total	20	103.166			
Corrected Total	19	17.964			

Discussion

After imparting 48 hours of sleep deprivation and subsequent collection of data, it was revealed that remarkable difference pervades between the two groups tested on balance, where experiment group was lacking balance as compared to control group. The findings are with clarification of the study conducted by June J. Pilcher and Allen I. Huffcutt (1996).

In the study, the coupling was not too affected; there was the least significant difference. One factor could be the age, where it takes a longer time to develop coupling abilities. The best time to develop such abilities is at the young age. There was the difference between the post-test mean of the two groups, the values were not significant enough.

In observation of orientation, there exists a significant difference among the two groups. There reflects a prominent difference in the near values of both the tested groups.

According to the evaluation of the reaction ability, there exists an insignificant difference between both the groups (Experimental group and Control group). There is a significant difference in the near value of experiment group, but there is a statistically insignificant difference in between groups.

On the basis of the findings and discussion the hypothesis was that there would be a significant effect of Sleep deprivation on performance variables of volleyball players was partially accepted.

Conclusions

The findings and discussion based on the hypothesis as there would be a significant effect of Sleep deprivation on performance variables of volleyball players was partially accepted on 2 coordinative abilities depicted significant difference out of selected abilities.

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Effect Of Meditation On Mental Toughness And Sports Competitive Anxiety Among badminton players

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Abstract

The Primary aim of the study was to investigate the effect of meditation on mental toughness and sports competitive anxiety among badminton players of D.C.P.E. Amravati. For the purpose of this study 20 male regular badminton players of 18 to 25 years of age from Degree College of Physical Education Amravati were randomly selected as subject. Mental Toughness (MTQ48) questionnaire developed by Dr. Alan Goldberg was used to measure mental toughness and the score was noted down in number. Sports Competitive Anxiety Questionnaire developed by Heinssen, Glass & Knight, 1987 was used to assess anxiety and the score was recorded in number. To determine the effect of meditation on mental toughness and sports competitive anxiety among badminton players independent and dependent 't' test was employed for each selected variables separately, the level of significance was set at 0.05 for testing the hypothesis. The findings of the statistical analysis revealed that six weeks of meditation program showed significant improvement on Mental Toughness and Sports Competitive Anxiety among badminton players.

Key Words- Meditation, Mental-Toughness, Sports Competitive Anxiety, Badminton.

Introduction

Every athlete would agree that energy is a key ingredient to success in sports. Food, restful sleep, breath and meditation are the four source of energy. The amount of energy gained from meditation is greater than that of sleep. Meditation is probably the most powerful technique known to relieve stress and anxiety and restore health. The fact is meditation improves concentration. The direct result of meditation improved concentration equals a higher level of performance. Once the mind becomes strengthened, it has better control over the body, enhancing overall performance. Therefore the present study was undertaken stated as "Effect of meditation on mental toughness and sports competitive anxiety among badminton players."

Purpose of the Study

To determine the effect of six weeks meditation programme on mental toughness and sports competitive anxiety among badminton players.

Hypothesis

It was hypothesized that there might be significant effect of meditation on mental toughness and sports competitive anxiety among badminton players.

Delimitations

1. Male regular badminton practitioners of Degree College of Physical Education, Amravati were selected as subjects.
2. The age of the subjects was ranging from 17 to 25 years.
3. Mental toughness and sports competitive anxiety were chosen as the dependent variables.

Limitations

Besides the Conditioning Programme the selected subjects were busy with their daily routine programmes which might have affected the result of the study but it was beyond the control of the scholar.

Methodology

Selection of the Subjects

Twenty (20) Badminton practitioners of various courses of Degree College of Physical Education were selected randomly for the present study.

Selection of Variables

Mental – Toughness and Sports Competitive Anxiety.

Tools & Criterion Measures

Mental Toughness - (MTQ48) questionnaire developed by Dr. Alan Goldberg was used to measure mental toughness and the score was noted down in number.

Sports Competitive Anxiety Questionnaire developed by Heinssen, Glass & Knight, 1987 was used to assess anxiety and the score was recorded in number.

Collection of data

Purpose of the study and procedure of tests were explicitly stated to the selected subjects for their hearty cooperation & active participation. The data pertaining to the study were collected by administering the above mentioned questionnaires before and immediately after training programme on the selected groups.

Processing of Data

All the collected data were arranged systematically in the table for further statistical calculations.

Results and Interpretation

The analysis of data collected on mental toughness and sports competitive anxiety has been done by employing independent and dependent t-test statistical techniques for each variable separately to find out the mean difference between the Pre and Post-tests performance. To test the Hypothesis, the level of significance was set at 0.05

Findings

The results pertaining to the statistical analysis of the collected data have been presented in the following table.

Table – 1
Description of Mean, Standard Deviation and t-ratio for the Pre Test Data on the Mental Toughness & Sports Competitive Anxiety of Experimental and Control Group

Variable	Mean of		S. Dev. of		Mean Diff.	S.E. of M.D.	t - ratio
	Expt. group	control group	Expt. group	control group			
Mental Toughness	20.2	19.4	1.23	2.01	0.8	2.04	1.075 [@]
Sports Competitive Anxiety	69	69.1	4.29	3.381	0.1	1.727	0.057 [@]

[@] Not significant at .05 level Tabulated t_{.05(18)} = 2.101

It is evident from the above findings that the calculated t value of 1.075, 0.057, respectively are quite lesser than the tabulated t-value of 2.101 required to be significant at .05 level for the 18 degree of freedom, hence it can be stated that the difference between the pre-test mean values of both groups in both the variables are statistically insignificant.

Table - 2
Description of Mean, Standard Deviation and t-ratio for the Pre v/s Post Test Data analysis on the mental toughness & sports competitive anxiety of Control Group

Variable	Mean of		S. Dev. of		Mean Diff.	S.E. of M.D.	t - ratio
	Pre-test	Post-test	Pre-test	Post-test			
Mental toughness	19.4	19.8	2.01	2.29	0.4	0.963	0.373 [@]
Sports Competitive Anxiety	69.1	69.6	3.381	3.657	0.276	1.508	1.048 [@]

[@] Not significant at .05 level Tabulated t_{.05(9)} = 1.833

It is evident from the above findings that there is no significant difference between pre- and post-test means of mental toughness (t=0.373), sports competitive anxiety (t=1.048) because all the obtained t-values are less than that of required tabulated t-values of 1.833 at .05 level for the 9 degree of freedom.

Table - 3

Description of Mean, Standard Deviation and t-ratio for the Pre v/s Post Test Data on mental toughness & sports competitive anxiety of Experimental Group

Variable	Mean of		S. Dev. of		Mean Diff.	S.E. of M.D.	t - ratio
	Pre-test	Post-test	Pre-test	Post-test			
Mental toughness	20.2	22.1	1.23	2.51	1.9	0.883	3.298*
Sports Competitive Anxiety	69	71	4.29	5.05	2	1.046	4.243*

*Significant at .05 level Tabulated $t_{.05(9)} = 1.833$

Findings of the above table indicate that there is significant improvement between the Pre and Post-test means of mental toughness ($t=3.298$), sports competitive anxiety ($t=4.243$) of experimental group, because all the above mentioned t-values are greater than the tabulated t-value of 1.88 at .05 level for the 9 (nine) degree of freedom. Comparison of means has been picturesquely presented in Fig.3.

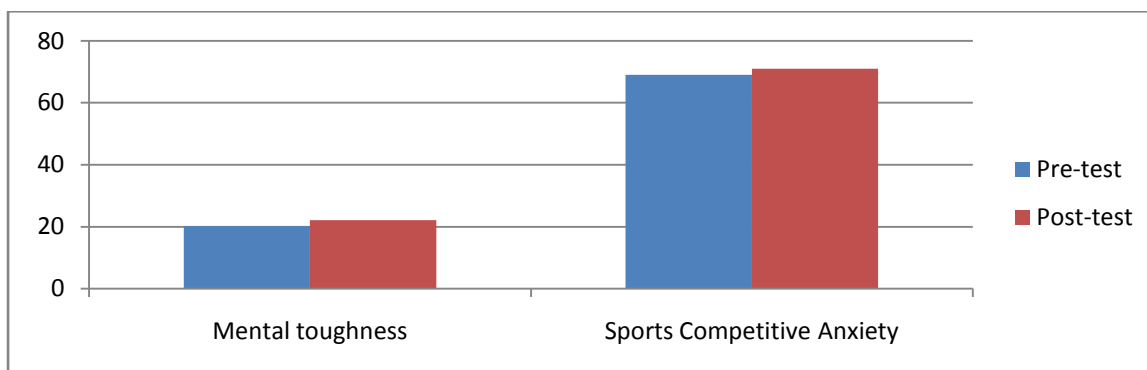


Fig.3 – Difference between the Pre and Post-test Means of selected Variables of Experimental group

Table – 4

Description of Mean, Standard Deviation and t-ratio for the Post Test Data Analysis on Mental Toughness & Sports Competitive Anxiety of Experimental & Control Group

Variable	Mean of		S. Dev. of		Mean Diff.	S.E. of M.D.	t - ratio
	Expt. group	Control group	Expt. group	Control group			
Mental Toughness	22.1	19.8	2.51	2.29	2.30	1.074	2.141*
Sports Competitive Anxiety	71.0	69.6	5.05	3.65	1.4	1.974	0.709[®]

*Significant at .05 level Tabulated $t_{.05(9)} = 1.833$

It is evident from the above findings that the calculated t values of 2.141 for mental toughness are statistically significant. Analysis of the table-2 also reveals that the calculated t-values of 0.709 sports Competitive anxiety are smaller than the tabulated t-value of 2.101 required to be significant at .05 level for the 18 degrees of freedom, hence difference between the post-test means of the above mentioned variables are statistically insignificant. The comparison or means has been graphically depicted in fig.4

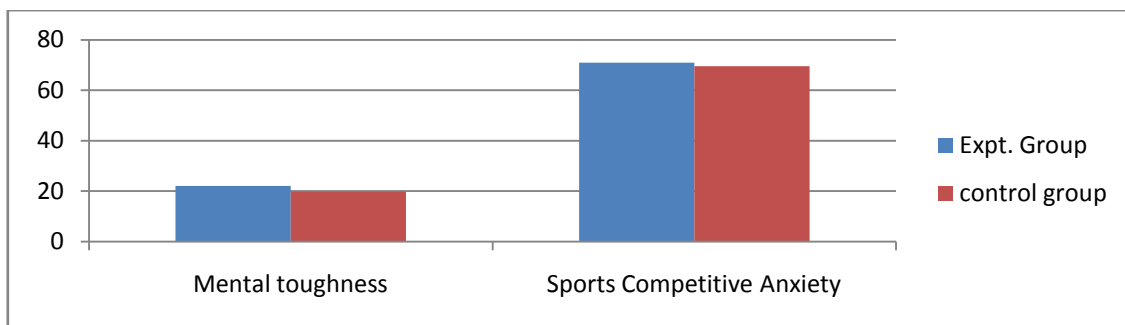


Fig. 4 – Difference between the Post-test Means of Selected Variables of Experimental and Control group

Discussion on findings

On the basis of findings from Table 3 it is understood that there was significant effect of Meditation program on Mental Toughness and Sports Competitive Anxiety of the experimental group. The significant improvement in the selected variable may be attributed to the fact that six weeks of Badminton training cum meditation program might have brought necessary physiological and psychological changes hence experimental group has shown significant improvement compared to control group. Hence such result might have occurred in the study.

Conclusion

Recognizing the limitations and on the basis of statistical findings it may be fairly concluded that six weeks of meditation programme along with badminton training significant improvement would be occurred in mental toughness and sports competitive anxiety of the badminton players.

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The Role of an Omega 3 (EPA - DHA) to enhancing the mental health of an Athlete

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ABSTRACT :

Daily diet of an Athletes are doing physical as well as mental activity during the sports at that time they required nutrition diet (balanced diet). Maximum nutrition mostly found in vegetables and non vegetables. Among this the most valuable Omega 3 Fatty Acid is requires. So an athlete have to add Omega 3 Fatty Acid in his regular diet.

KEYWORDS : Mental Health, Omega 3 Fatty Acid, EPA & DHA.

OBJECTIVES :

As we all know that each and every athlete or sports person trying for physical fitness by doing daily physical activity like running, walking, gym workouts and playing games. But with regular physical activity athlete must care about mental health. Many athletes search for the answer of how to get mental health or mentally tough and many athlete don't know how to cultivate it. So we will find some fact about how to improve the mental health.

WHAT IS MENTAL HEALTH ?

"Mental toughness is to physical as four is to one" - Bob Knight (Famous American Basketball coach)

"Football is so much about mental toughness, it's digging deep, it's doing whatever you need to do to help a team win" - Tom Brady (an American football quarterback for the New England)

Mental toughness is an attitude which you can get from mental health training and proper nutrition and diet. With stronger mental health you can perform the best level athlete ability, face the obstacles, interference and difficult, circumstances without losing your confidence and motivation. The success of an athlete's depends upon his mental toughness.

DIET AND MENTAL HEALTH :

We eat may affect not just our physical health but also our mental health. It is necessary to feel well being then we have to must eat fruits and vegetables. Mediterranean style diet (vegetables, fruits, grains, nuts and unsaturated fats, fish) supplements and poor diet with high level saturated fat, refined carbohydrates and processed food products leads to poorer mental health.

Poor nutrition and diet can leads to health problem like obesity which create mental problem also. Relation between obesity and depression is that many obese people got suffered involved in depression.

OMEGA 3 FATTY ACID (EPA - DHA) :

Now a day's players playing games for not only for participating, it's only winning the competition. So as a result he is ready to pay that high intensity exercises. Which leads to inflammatory state like blood clotting in vessels, hypolipidemic and vasodilator properties. Although this can be countered by Omega 3 Fatty Acid like EPA - DHA. as we are discussed in this para an athlete doing hard work for achieving his target, he get nutrition diet and exercise and found the regimen. Today we understand how the Omega 3 Fatty Acid are essential for an athlete.

Omega 3 Fatty Acid helps to prevent to manage hypertension, diabetics, auto immune diseases.

While doing physical activity athlete need to perform proper respiration like leaving Carbon dioxide and gaining Oxygen. Omega 3 Fatty Acid increase Oxygen delivery to heart muscles when it need.

An Athlete getting benefits by doing physical activity and fitness training. During this high intensity exercise leads to state of inflammation and an athlete can overcome by this inflammatory state using Omega 3 Fatty Acid.

Flaxseed is rich source of omega-3 polyunsaturated fatty acids (PUFA) and it is helpful in prevention of cardiovascular diseases and cancer particularly of mammary and prostate gland, anti

inflammatory activity, laxative effect. Nutritionists actually clear about selected foods that play an important role in maintaining physical and mental health status of consumers. However, specific poly un-saturated fatty acids (PUFA) have been shown to have different effects on adipose tissue metabolism that is beyond their energetic role.

SOURCES OF OMEGA 3 FATTY ACID

Omega 3 Fatty Acid are dietary fat naturally occur in many foods like Cold water fish, Egg, Mackerel fish is having great contents of nutrition's and Vitamin B6 and B12. Fatty fish is also dietary source of Omega 3. Salmon (1.24 of DHA, 0.59 EPA) is most popular and highly nutritious fish available . Salmon also contains high level of protein, magnesium, potassium, selenium and B vitamins (Medical new today) There are some more fishes which full of omega 3 Fatty Acid are Sea bass, oyster, sardians, shrimps, trouts etc.

There are so many vegetarian dishes also available for Omega 3. Flax seeds, chia seeds, walnuts, avocados which contains EPA & DHA. Alpha-linolenic Acid (ALA) generally found in marine plants and soyabeen, canola.

SUPPLEMENTS :

People who cannot meet their omega 3 dietary supplement the can use that supplement which can help to manage the problems which are facing by the lack of Omega 3 Fatty Acid.

1. Fish Oil (for EPA and DHA)
2. Cod Liver Oil (DHA and EPA with Vitamin A and D)
3. Algae oil (for the vegetarian people)

CONCLUSION :

Omega 3 Fatty Acid prevent to manage heart diseases and arthritis. They may also important for brain health and also for normal growth development. Omega 3 Fatty Acid helps to prevent to manage hypertension, diabetics, auto immune diseases. So an athlete include Omega 3 in their regular diet.

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Leadership Effectiveness In Physical Education And Sports

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Abstract

Leadership has been rather generally conceived of as the behavioural process of influencing individuals and groups towards set goals. Obviously, this is a broad definition that encompasses many dimensions of coaches leadership behavior, including the processes they use to make decisions, the type and frequency of feedback they given in response to athletes performances, the techniques they use to motivate individual athletes, and the type of relationship they establish with athletes, leadership effectiveness is typically operationalized in terms of outcome scores or measures; that is an effective leadership style is defined as that which results in either successful performance outcomes and/or in positive psychological responses on the part of the athletes.

Key words: Leadership, effectiveness, physical education and sports

Mythological approaches

Coaches who score high on the training and instruction factor exhibit high frequencies of behaviors oriented toward improving the performance of their athletes. These behaviors include

1. Emphasizing and facilitating hard and strenuous training.
2. Instructing them in skills, techniques, and tactics;
3. Clarifying the working relationship among team members and
4. Structuring and coordinating the performance activities of the team.

Effective decision making situational variables

1. The degree of quality inherent in the problem situation (How crucial is the decision);
2. The amount of information relevant to the problem solution available to the coach;
3. The complexity of the problem;
4. The degree of integration or cohesiveness among group members;
5. The presence or absence of time restrictions in regard to the decision making process;
6. The degree to which group acceptance of the decision is necessary or crucial and
7. The amount of status or power the coach holds with regard to team members.

Review of literature

Age, competitive level and year's experience

The studies conducted to test the age/maturity hypothesis indicate some support for the notion that increased age and/or athletic maturity affects the type of leadership behaviors preferred by athletes. However, these differences may be evident primarily in the earlier age ranges. Specifically, **Terry and Howe** (2011) administered the Leadership scale for sport (LSS) to 160 athletes from a variety of sports ranging from 17 to 40 years of age. They found no age differences in regard to preferred coaching behavior. Similarly, Terry also found no age differences on the five factors of the LSS in a group of 160 athletes ranging in age from 17 to 28 years.

Gender

Chelladurai and Arnott (2012) administered a decision style questionnaire to 144 female and male university level basketball players to identify the type of decision making athletes would prefer their coaches to use in example sport situations. Comparison of male and female responses showed that female athletes were significantly more apt than their male peers to prefer a participatory style in which the coach allows the athletes to participate in the decision making process.

Nationality

According to the **Challadurai model** (2014) the socio-cultural prescriptions that characterize and differentiate between individual cultures may constitute a situational characteristic that will affect the type of leadership behavior that will be most effective. He reported no differences in preferred coaching style as a function of nationality.

Type of sport

The particular type of sport in which group members are engaged may also affect the leadership behaviors which will be most effective for that team. Based on concepts two particular task attributes have been identified as those which may be the most crucial in determining effective leadership behaviors across sports. These attributes include the degree of task variability inherent in the sport and the extent of cooperation necessary between group members.

Conclusion:

The effectiveness of a coach's behavior or leadership style can be assessed by measuring two multidimensional constructs. These include athletic performance and group satisfaction.

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A Study of Boldness of Players of Different Games

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Abstract

The purpose of the study was to compare the boldness level of players of different games. For the present study researcher has selected 50 players from Amravati within group design was used for the present study. Same 50 Players 10 from each (Basketball, Handball, Hockey, Kabaddi and Football Players) who were participated Inter University Tournament of Sant Gadge Baba Amravati University, Amravati were selected for study. The age range of respondents was 18-285 years. Purposive non – probability random sampling method was used for collection of data. Multi Assessment Personality Series (MAPS) Questionnaire was used for collection of data. This scale was constructed developed by Sanjay Vohra. It consists 147 complete sentences and each item is provided three alternatives the players had to select one of the three alternative statements. And only the score of boldness was taken for this study. Statistical Analysis was done on the basis of both descriptive and comparative. Descriptive was done on the basis of mean and standard deviation and comparative was done on the basis of One Way Analysis Of Variance. Significant level was kept at 0.05 level. Result shows that by seeing the Mean of boldness of players of different games there is differences. To see these differences was significant or not researcher has calculate One -Way Analysis of Variances, it was found that there was significant different between players of different game in reference to Boldness because the calculated 'f' value i.e. 10.13 which is much greater than tabulated 'f' value 2.57. Concluding we can say that significant difference was found between the means of Basketball and Handball Players, Basketball and Football Players, Handball and Hockey Players, Handball and Kabaddi Players, Kabaddi and Football Players as the mean difference was greater than the critical differences. As well as other Mean differences were found to be insignificant. The sequence of Boldness of Player of different games was (10.8) Kabaddi Players > (10.2) Basketball Players > (9.7) Hockey Players > (8.8) Football Players > (7.9) Handball Players.

Keyword: Boldness, Basketball, Handball, Hockey, Kabaddi and Football Players

Introduction

Every individual have their own unique quality. Some players take a remarkable risk in their sports. Some goes to extreme and visit war zones. Others view the ability to stay quiet and enjoy the game. But contact game are not alone having the risk, every game having varying attitudes to risk. From kick boxing to chess or golf to fencing, every players differ consistently in their willingness to be exposed to risk. The players with this type of behaviour may be beneficial for the team. Behavioural psychologists call this spectrum of responses “boldness”, and researchers in the field of games and sports are exploring its evolutionary significance.

Boldness is totally opposite of fearfulness. To be bold implies a willingness to get things done despite or taking a risks. Boldness may be a behavioural attitude that only certain individuals are able to display. For example, in the context of sociability, a bold person may be willing to take the risk shame or rejection in social situations arising, or to bend the rules of etiquette or politeness. An excessively bold player may be aggressively while performing his skill or taking a shot.

Boldness may be contrasted with courageousness of an individual and latter implies having fear but confronting it.

But perhaps we could think about how evolutionary significance of boldness might play a part of debate. Players are a fiercely social and cooperative in nature and protecting members of our close social group has a sound evolutionary basis. By reducing the risks to those with whom we interact or share the same genes, moreover our own genetic material is preserved. We're also having a strong social interaction with different group increases the chances of humanity.

At the same time it's too simple to say that those players having higher boldness is associated with higher aggression. In this case, the researchers suggest that the player who are more exposed to

take risk cope with this by responding more aggressively and so more boldly to threats his attitude. Players today usually constrain their aggression within carefully outlined legal and social rules so that they can show their optimum level of performance. But perhaps the aggressive nature of player in rugby still scratch an evolutionary itch inspired by an individual's impulse to be bold.

Hence researcher wants to know the boldness level of players of different games.

Method

For the present study researcher has selected 50 players from Amravati within group design was used for the present study. Same 50 Players 10 from each (Basketball, Handball, Hockey, Kabaddi and Football Players) who were participated Inter University Tournament of Sant Gadge Baba Amravati University, Amravati were selected for study. The age range of respondents was 18-285 years. Purposive non – probability random sampling method was used for collection of data.

Measures

Multi Assessment Personality Series (MAPS) Questionnaire was used for collection of data. This scale was constructed developed by Sanjay Vohra. It consists 147 complete sentences and each item is provided three alternatives the players had to select one of the three alternative statements. And only the score of boldness was taken for this study.

Statistical Analysis

Statistical Analysis was done on the basis of both descriptive and comparative. Descriptive was done on the basis of mean and standard deviation and comparative was done on the basis of One Way Analysis Of Variance. Significant level was kept at 0.05 level.

**Table – 1
Mean & Standard Deviation of Boldness**

Game	Mean	S D
Basketball Player	10.2	1.31
Handball Player	7.9	0.99
Hockey Player	9.7	0.94
Kabaddi Player	10.8	1.54
Football Player	8.8	0.78

**Table – 2
Comparison of Boldness of Players of different Games**

SV	SS	df	MS	F
between	52.68	4	13.17	10.13*
error	59.8	46	1.3	

*Significant at 0.05 level tab 'f' at (4,46) = 2.57

Result

Above tables shows that by seeing the Mean of boldness of players of different games there is differences. To see these differences was significant or not researcher has calculate One -Way Analysis of Variances, it was found that there was significant different between players of different game in reference to Boldness because the calculated 'f' value i.e. 10.13 which is much greater than tabulated 'f' value 2.57.

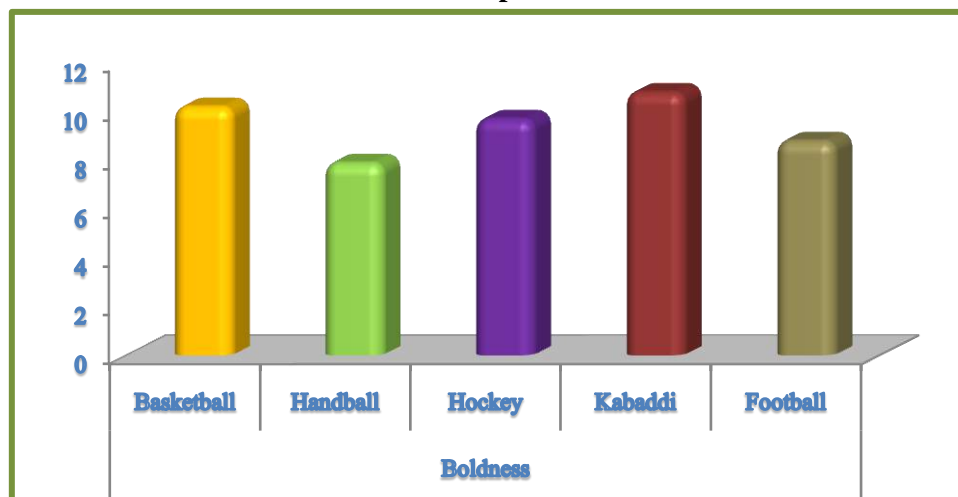
Since the One-Way Analysis of Variance was found to be significant, the least significant difference (L.S.D.) Post Hoc Test was applied to assess the paired means difference among the players of different games.

Table – 3
Post Hoc Test

Basketball Players	Handball Players	Hockey Players	Kabaddi Players	Football Players	MD	CD
10.2	7.9				2.3*	1.312
10.2		9.7			0.5	
10.2			10.8		0.6	
10.2				8.8	1.4*	
	7.9	9.7			1.8*	
	7.9		10.8		2.9*	
	7.9			8.8	0.9	
		9.7	10.8		1.1	
		9.7		8.8	0.9	
			10.8	8.8	2*	

*Significant at 0.05 level

Graph



Conclusion

Above revealed that significant difference was found between the means of Basketball and Handball Players, Basketball and Football Players, Handball and Hockey Players, Handball and Kabaddi Players, Kabaddi and Football Players as the mean difference was greater than the critical differences. As well as other Mean differences were found to be insignificant.

The sequence of Boldness of Player of different games was (10.8) Kabaddi Players > (10.2) Basketball Players > (9.7) Hockey Players > (8.8) Football Players > (7.9) Handball Players.

It can assumed that if players differ in the extent that they change their behavior based on their previous and current experiences, this may represents a potential mechanism through which social roles can be generated and reinforced to create even longer lasting differences between players. In other words, psychological factors may be maintained by participation in various games and sports activities because of their role in social coordination.

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10 Ways Youth Of Jammu & Kashmir Benefits From Yogas**Koushal Sharma**

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Abstract

The aim of this paper is to make attempt to evaluate the role of yoga for the youth of Jammu and Kashmir at present Era. It provides inclusive review of the benefits of regular practice of yoga for the state youth. In this modern world of 21st century our youth is struggling for fortitude and survival and our state youth beings bear from more and more physical, mental, social stress. All the time we cannot control them, but yoga provides the way to face them. There is a need for increasing youth awareness about the effect of modern life on our lifestyle includes un proper eating, less physical activity, and un proper way of communicating and socializing in the community. These all can be heal with the help of practice yoga. It will reduce the hazard of so many diseases which resulted from our unhealthy lifestyle adopted by youth in day to day life. In other words, it is an art of controlling your mind, body and breath and unlocking the unseen energies and talent. The aim of yoga is achievement of physical, mental and spiritual concord.

Keywords: Yoga, youth, modern life, health

Introduction:

Yoga is not a religion, but it is a philosophy that has endured 5,000 years. Yoga has originated in ancient India. It is a physical, mental and spiritual practice to lives life happy and stress free. It's become popular in the West in the 20th century. Yoga meaning in layman language are 'Samadhi' or 'Concentration'. Thus, yoga is the practice that aims to join the mind, body and spirit. Each of the poses has specific physical benefits for the youth of Jammu and Kashmir. Physical strain and imbalances are brought in busy and stress life in modern world. The central methods of yoga are physical postures or 'Asanas' and movement, breathing techniques or 'Pranayama' and meditation. These help to guidance on healthy lifestyle, eating habits, mental attitude and various yoga poses are practice to improve the internal strength and piece of the youth. There is an ideal way that each pose should be performed. Yoga is both a state of connection and a body of techniques that allow us to connect to anything. Many people think that yoga is stretching but, yoga is really about creating balance in the body through developing both strength and flexibility. Most types of yoga are more concerned with mental and spiritual well-being than physical activity.

YOGA:

The word Yoga originated from "the Sanskrit word Yuj' meaning to yoke, join, to unite or yoke together", and the essential purpose of yoga is to take equally body, mind and spirit. Carl G. Jung the eminent Swiss psychologist, described yoga as "one of the greatest things the human mind has ever created. Yoga is a Hindus theistic attitude teaching the control of all activity of body, mind, and will in order that the self may realize its difference from them and attain freedom. In other word a system of physical postures, breathing techniques, and sometimes meditation also derived from Yoga. According to Patanjali's Yoga sutra, there are 195 sutras or threads as well as in eight fold path. These paths provide yogic paths that facilitate connection to the highest truth and awaken our own consciousness, including tantra, mantra, laya, kundalini, bhakti, jnana, karma yoga, and so on. Each path specializes in its own techniques and methods to awaken greater awareness and connection to self, and. These eight limbs are:

- | | |
|--|--|
| 1)Yama - Five abstentions (or outer observances) | 3)Asana - Physical posture needed for meditation |
| 2)Niyama - Five inner observances | 4)Pranayama - Controlled or suspended breath |
| | 5)Pratyahara - Withdrawal of the senses |

6)Dharana - Single pointed concentration

8)Samadhi – freedom

7)Dhyana - Meditation

The role of Yoga in Modern Life for Jammu and Kashmir youth are:-

Provides direction to the youth towards goal or aim of life

According to Patanjali's Yoga Sutra yoga slows down the mental loops of frustration, regret, anger, fear, and desire that can cause stress. We want to promote as much awareness and remove the wrong concepts. We want everyone, especially youth of our state to be mentally, physically and spiritually fit as it keeps you away from wrong doings. Some researcher says few words related to yoga in Kashmir valley, militancy cannot exist. As the youth build so much mental resistance that they can fight the negativity within themselves. Yoga has changed the life paths of so many others who otherwise would have been on the roads along with the stone-palters, without aim.

The concentration of youth improves and helps to stay focused:

The role of yoga for the youth of Jammu and Kashmir is endless. Yoga teaches us best lesson to focus on the present era. Some studies were found that practicing yoga every day improves youth IQ and Memory. Modern lifestyle destroys youth concentration in form of cell phones, laptops, TVs and social media. Yoga can bring our awareness to the present moment and help us to stay focused and improve our concentration. It also improves their concentration and helps them to be less distracted by their thoughts. That's why children and teenagers are also encouraged to do Yoga because it helps them focus on their study better

Increases your blood flow

In Jammu & Kashmir State our environment is rich of oxygen, fresh air and pollution free surroundings due to the more trees in that area, but now a day's youth not interested to move outward from home and perform yogic exercise. If the youth was practice relaxation exercises especially in our hands and feet. They increase the blood circulation. Yoga also gets more oxygen to your cells, which function better as a result. Twisting poses are thought to wring out venous blood from internal organs and allow oxygenated blood to flow in once the twist is released. Inverted poses, such as Headstand, Handstand, and Shoulder stand, encourage venous blood from the legs and pelvis to flow back to the heart, where it can be pumped to the lungs to be freshly oxygenated. This can help if you have swelling in your legs from heart or kidney problems. Yoga also boosts levels of hemoglobin and red blood cells, which carry oxygen to the tissues. And it thins the blood by making platelets less sticky and by cutting the level of clot-promoting proteins in the blood. This can lead to a decrease in heart attacks and strokes since blood clots are often the cause of these killers.

Yoga helps to build strength for new mothers

Some doctors suggest their patients perform yoga on a daily basis. For example, yoga is essential, for a new mother. Yoga helps to strengthen their body and helps them to get back in shape. Yoga involves a lot of stretching exercises. It helps to reduce 40 to 50 percent of the body fat of newly mothers without weaker and loses the muscle of the body and strengthen it. Regular practice of yoga helps us to look more attractive.

Increases your self-esteem

According to United Nations International Drug Control Programmer survey in 2008 showed that there were more than 70,000 drug addicts in Kashmir, including 4000 women. if these youth participate in yogic exercise. They are far away from the harmful drugs. Many of us suffer from constant low self-esteem. If we handle this negatively—take drugs, overeat, work too hard, sleep around—we may pay the price in poorer health physically, mentally, and spiritually. If we take a positive approach and practice yoga. Yogic philosophy teaches that you are a demonstration of the Divine. You'll experience feelings of gratitude, empathy, and forgiveness, as well as a sense that you're part of something bigger.

Yoga as a profession for our state youth

The number of yoga trainers in the country has increased 30% in the past two years, according to ministry estimates. Yoga has gradually become popular among Indians. The government is also planning to create around 10,000 vacancies for yoga trainers in coming years, same in the case of Jammu & Kashmir state at present time yoga as a profession adopted by youth is increasing at swift rate. Even Jammu & Kashmir both differently provide one year diploma course in yoga. More and more private companies are hiring yoga instructors in their offices realizing its holistic benefits and provide job opportunities for the youth of our state.

Gives inner strength, flexibility & posture

Strong muscles do more than look good. Yoga can help youth make changes in our life. In fact, that might be its greatest strength. Tapas, The Sanskrit word for “heat,” are the fire, the discipline that boosts fuels which are regular practice by yoga. The tapas we build up can be extended to the rest of our life to conquer inertia and change dysfunctional habits. We start to eat better, exercise more and feel stronger and flexible. If we just went to the gym and lifted weights, we might build strength at the cost of flexibility and then suffer from joint pain. It’s because tight hips injure the knee joint due to rude alignment of the thigh and shin bones. In this way discomfort occurs due to the inflexibility of muscle and connective tissue caused poor posture. These all can be cure by practice yogic asanas and even removing joint pain.

Protects our spine

In Jammu and Kashmir our youth face serious problem related Spinal—the shock absorbers between the vertebrae that can herniated and compress nerves or disks supple. That's the only way they get their nutrients. If we have performed well- practice asana with plenty of backbends, forward bends, and twists, it will help to cure from spinal dealer problems. Doctors now prescribe to practice yoga to prevent back pain and arthritis. In an unpublished study conducted at California State University, Los Angeles, yoga practice increased bone density in the vertebrae. Yoga's ability to lower levels of the stress hormone cortisol (see Number 11) may help keep calcium in the bones.

Healthy lifestyle and make happier

Today youth prefer young food to eat due to busy schedule. They have no time for workout and intake high calories food as result, suffer from many diseases. A regular practice gets our moving and burns calories, and the spiritual and emotional dimensions of your practice may encourage you to address any eating and weight problems on a deeper level. Yoga may also inspire you to become a more conscious eater. The University of Wisconsin, Richard Davidson, Ph.D., found that the left prefrontal cortex showed heightened activity in meditators, a finding that has been correlated with greater levels of happiness and better immune function. Yoga helps to make youth happier and focused.

Yoga solve many health related issues

A healthy person can do the most of his/her life as compared to one who is unhealthy. Modern life is very stressful, and there’s a lot of pollution in our surrounding. Youth of big cities like Jammu & Kashmir face several problems, and one of them is laziness. Even 10-20 minutes of Yoga can fully fresh the body and prevent health related issues

Some health related issues solved by yoga

- lower risk of heart attack
- Relieve depression
- Regulates our adrenal glands
- Drains our lymphs and boosts immunity
- Maintain our nervous system
- Prevents IBS and other digestive problems
- Gives our lungs room to breathe
- Ease our pains by performing different asanas
- Free from medicine and many more

Healthy lifestyle and make happier

Today youth prefer young food to eat due to busy schedule. They have no time for workout and intake high calories food as result, suffer from many diseases. A regular practice gets our moving

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Conclusion

At last yoga is one solution of many problems. Yoga practices include posture, breathing, control of subtle forces, cleansing the body-mind, visualizations, chanting of mantras, and many forms of meditation to improve the health of youth of Jammu & Kashmir. We all know that youth are the backbone of the society or nation. They are taking the nation forward and exploring new convention ideas. So it is important that youth will feel joyful, blissful, avoiding harm to others, telling the truth, keep calm in critical situation and free from disease. This is only possible by doing Yoga. It increases peace level and makes you more joyful resulting in more confidence. Decreased stress means that we will be healthy.

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Nutrition An Important Aspect Of Human Life

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Abstract:

Good nutrition is an important part of leading a healthy life style. Combined with physical activity, your diet can help you to reach and maintain a healthy weight reduce your risk of health related diseases and promote your health. Eating a poor diet reduces physical and mental health because some have clearly said that sound mind lies in a sound body. Feelings of wellbeing can be protected by ensuring that our diet will be full of essential nutrients. The use of a nutritional supplement within established guidelines is safe, effective and ethical. It is vital to educate the person about the dietary pattern. Failure to consume right diet during competition due to false belief in markets and constant fear of eating prohibited foods may hamper their health. Finally the future of nutritional supplement looks bright in regard to the areas of transport mechanism, improved muscle retention as well as treatment of health related issues.

Introduction:

Nutrition is the science that interprets the interaction of nutrients and other substances in food in relation to maintenance, growth, reproduction, health and disease of an organism. It includes food intake, absorption, assimilation, biosynthesis, catabolism, and excretion. The diet of an organism is what it eats, which is largely determined by the availability and palatability of foods. For humans, a healthy diet includes preparation of food and storage methods that preserve nutrients from oxidation, heat or leaching, and that reduce risk of food borne illnesses. In humans, an unhealthy diet can cause deficiency-related diseases such as blindness, anemia, scurvy, preterm birth, stillbirth and cretinism, or nutrient excess health-threatening conditions such as obesity and metabolic syndrome and such common chronic systemic diseases as cardiovascular disease, diabetes, and osteoporosis. Under nutrition can lead to wasting in acute cases, and the stunting of marasmus in chronic cases of malnutrition. Nutrients are thought to be of two types: macro-nutrients which are needed in relatively large amounts, and micronutrients which are needed in smaller quantities. A type of carbohydrate, dietary fiber, i.e. non-digestible material such as cellulose, is required for both mechanical and biochemical reasons, although the exact reasons remain unclear. Some nutrients can be stored - the fat-soluble vitamins - while others are required more or less continuously. Poor health can be caused by a lack of required nutrients, or for some vitamins and minerals, too much of a required nutrient. The macronutrients are carbohydrates, fiber, fats, protein, and water. The macronutrients (excluding fiber and water) provide structural material (amino acids from which proteins are built, and lipids from which cell membranes and some signaling molecules are built) and energy. Some of the structural material can be used to generate energy internally, and in either case it is measured in Joules or kilocalories (often called "Calories" and written with a capital C to distinguish them from little 'c' calories). Carbohydrates and proteins provide 17 kJ approximately (4 kcal) of energy per gram, while fats provide 37 kJ (9 kcal) per gram though the net energy from either depends on such factors as absorption and digestive effort, which vary substantially from instance to instance. Vitamins, minerals, fiber, and water do not provide energy, but are required for other reasons. Molecules of carbohydrates and fats consist of carbon, hydrogen, and oxygen atoms. Carbohydrates range from simple monosaccharide's (glucose, fructose and galactose) to complex polysaccharides (starch). Fats are triglycerides, made of assorted fatty acid monomers bound to a glycerol backbone. Some fatty acids, but not all, are essential in the diet: they cannot be synthesized in the body. Protein molecules contain nitrogen atoms in addition to carbon, oxygen, and hydrogen. The fundamental components of protein are nitrogen-containing amino acids, some of which are essential in the sense that humans cannot make them internally. Some of the amino acids are convertible (with the expenditure of energy) to glucose and can be used for energy production, just as ordinary glucose, in a process known as gluconeogenesis. By breaking down existing protein, the carbon skeleton of the various amino acids can be metabolized to intermediates in cellular respiration; the remaining ammonia is discarded primarily as urea in urine.

Carbohydrates

Carbohydrates may be classified as monosaccharides, disaccharides, or polysaccharides depending on the number of monomer (sugar) units they contain. They constitute a large part of foods

such as rice, noodles, bread, and other grain-based products, also potatoes, yams, beans, fruits, fruit juices and vegetables. Monosaccharide's, disaccharides, and polysaccharides contain one, two, and three or more sugar units, respectively. Polysaccharides are often referred to as complex carbohydrates because they are typically long, multiple branched chains of sugar units. Traditionally, simple carbohydrates are believed to be absorbed quickly and therefore to raise blood-glucose levels more rapidly than complex carbohydrates. This, however, is not accurate. Some simple carbohydrates (e.g., fructose) follow different metabolic pathways (e.g., fructolysis) that result in only a partial catabolism to glucose, while, in essence, many complex carbohydrates may be digested at the same rate as simple carbohydrates. The World Health Organization (WHO) recommends that added sugars should represent no more than 10% of total energy intake.

Fiber

Dietary fiber is a carbohydrate that is incompletely absorbed in humans and in some animals. Like all carbohydrates, when it is metabolized it can produce four Calories (kilocalories) of energy per gram. However, in most circumstances it accounts for less than that because of its limited absorption and digestibility. Dietary fiber consists mainly of cellulose, a large carbohydrate polymer which is indigestible as humans do not have the required enzymes to disassemble it. There are two subcategories: soluble and insoluble fiber. Whole grains, fruits (especially plums, prunes, and figs), and vegetables are good sources of dietary fiber. There are many health benefits of a high-fiber diet. Dietary fiber helps reduce the chance of gastrointestinal problems such as constipation and diarrhea by increasing the weight and size of stool and softening it. Insoluble fiber, found in whole wheat flour, nuts and vegetables, especially stimulates peristalsis, the rhythmic muscular contractions of the intestines, which move digest along the digestive tract. Soluble fiber, found in oats, peas, beans, and many fruits, dissolves in water in the intestinal tract to produce a gel that slows the movement of food through the intestines. This may help lower blood glucose levels because it can slow the absorption of sugar. Additionally, fiber, perhaps especially that from whole grains, is thought to possibly help lessen insulin spikes, and therefore reduce the risk of type 2 diabetes. The link between increased fiber consumption and a decreased risk of colorectal cancer is still uncertain.

Fat

A molecule of dietary fat typically consists of several fatty acids (containing long chains of carbon and hydrogen atoms), bonded to a glycerol. They are typically found as triglycerides (three fatty acids attached to one glycerol backbone). Fats may be classified as saturated or unsaturated depending on the detailed structure of the fatty acids involved. Saturated fats have all of the carbon atoms in their fatty acid chains bonded to hydrogen atoms, whereas unsaturated fats have some of these carbon atoms double-bonded, so their molecules have relatively fewer hydrogen atoms than a saturated fatty acid of the same length. Unsaturated fats may be further classified as monounsaturated (one double-bond) or polyunsaturated (many double-bonds). Furthermore, depending on the location of the double-bond in the fatty acid chain, unsaturated fatty acids are classified as omega-3 or omega-6 fatty acids. Trans fats are a type of unsaturated fat with trans-isomer bonds; these are rare in nature and in foods from natural sources; they are typically created in an industrial process called (partial) hydrogenation. There are nine kilocalories in each gram of fat. Fatty acids such as conjugated linoleic acid, catalpic acid, eleostearic acid and punicic acid, in addition to providing energy, represent potent immune modulatory molecules. Saturated fats (typically from animal sources) have been a staple in many world cultures for millennia. Unsaturated fats (e. g., vegetable oil) are considered healthier, while Tran's fats are to be avoided. Saturated and some Trans fats are typically solid at room temperature (such as butter or lard), while unsaturated fats are typically liquids (such as olive oil or flaxseed oil). Trans fats are very rare in nature, and have been shown to be highly detrimental to human health, but have properties useful in the food processing industry, such as rancidity resistance.

Protein

Proteins are chains of amino acids found in most nutritional foods. Proteins are structural materials in much of the animal body (e.g. muscles, skin, and hair). They also form the enzymes that control chemical reactions throughout the body. Each protein molecule is composed of amino acids, which are characterized by inclusion of nitrogen and sometimes sulphur (these components are responsible for the distinctive smell of burning protein, such as the keratin in hair). The body requires amino acids to produce new proteins (protein retention) and to replace damaged proteins (maintenance). As there is no protein or amino acid storage provision, amino acids must be present in the diet. Excess amino acids are discarded, typically in the urine. For all animals, some amino acids

are essential (an animal cannot produce them internally) and some are non-essential (the animal can produce them from other nitrogen-containing compounds). About twenty amino acids are found in the human body, and about ten of these are essential and, therefore, must be included in the diet. A diet that contains adequate amounts of amino acids (especially those that are essential) is particularly important in some situations: during early development and maturation, pregnancy, lactation, or injury (a burn, for instance). A complete protein source contains all the essential amino acids; an incomplete protein source lacks one or more of the essential amino acids. It is possible with protein combinations of two incomplete protein sources (e.g., rice and beans) to make a complete protein source and characteristic combinations are the basis of distinct cultural cooking traditions. However, complementary sources of protein do not need to be eaten at the same meal to be used together by the body. Excess amino acids from protein can be converted into glucose and used for fuel through a process called gluconeogenesis.

Water

Water is excreted from the body in multiple forms; including urine and feces, sweating, and by water vapour in the exhaled breath. Therefore, it is necessary to adequately rehydrate to replace lost fluids. Early recommendations for the quantity of water required for maintenance of good health suggested that 6–8 glasses of water daily is the minimum to maintain proper hydration. However the notion that a person should consume eight glasses of water per day cannot be traced to a credible scientific source. The original water intake recommendation in 1945 by the Food and Nutrition Board of the National Research Council read: "An ordinary standard for diverse persons is 1 milliliter for each calorie of food. Most of this quantity is contained in prepared foods." More recent comparisons of well-known recommendations on fluid intake have revealed large discrepancies in the volumes of water we need to consume for good health. Therefore, to help standardize guidelines, recommendations for water consumption are included in two recent European Food Safety Authority (EFSA) For healthful hydration, the current EFSA guidelines recommend total water intakes of 2.0 L/day for adult females and 2.5 L/day for adult males. These reference values include water from drinking water, other beverages, and from food. About 80% of our daily water requirement comes from the beverages we drink, with the remaining 20% coming from food. Water content varies depending on the type of food consumed, with fruit and vegetables containing more than cereals.

Micronutrients

Dietary minerals are inorganic chemical elements required by living organisms, other than the four elements carbon, hydrogen, nitrogen, and oxygen that are present in nearly all organic molecules. The term "mineral" is archaic, since the intent is to describe simply the less common elements in the diet. Some are heavier than the four just mentioned, including several metals, which often occur as ions in the body. Some dietitians recommend that these be supplied from foods in which they occur naturally or at least as complex compounds, or sometimes even from natural inorganic sources (such as calcium carbonate from ground oyster shells). Some minerals are absorbed much more readily in the ionic forms found in such sources. On the other hand, minerals are often artificially added to the diet as supplements; the most famous is likely iodine in iodized salt which prevents goiter.

Vitamins

Vitamins are essential nutrients, necessary in the diet for good health. (Vitamin D is an exception, as it can be synthesized in the skin in the presence of UVB radiation, and many animal species can synthesize vitamin C.) Vitamin deficiencies may result in disease conditions, including goiter, scurvy, osteoporosis, impaired immune system, disorders of cell metabolism, certain forms of cancer, symptoms of premature aging, and poor psychological health, among many others. Excess levels of some vitamins are also dangerous to health. The Food and Nutrition Board of the Institute of Medicine has established Tolerable Upper Intake Levels (ULs) for seven vitamins.

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Techniques And Benefits Of Surya Namaskar

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Abstract

*Surya Namaskara also known in English as Sun Salutation (lit. "salute to the sun"), is a common sequence of Hatha yoga [asanas](#). This sequence of movements and asanas can be practiced on varying levels of awareness, ranging from that of physical exercise in various styles, to a complete sadhana which incorporates asana, pranayama, mantra and chakra meditation. It is often the beginning vinyasa within a longer yoga series. **Sūrya Namaskāra may also refer to other styles of "Salutations to the Sun".** There are twelve poses in the Surya Namaskar series, and a full round consists of performing two sets of this series. During the second set, practitioners move the opposite leg from the one involved in movement during the first set. Whether you regularly practice yoga or not, you can enjoy the health benefits of Surya Namaskar. Performed correctly, it is a completely safe set of yoga poses that will not cause strain or injury. You will experience health benefits by practicing the Sun Salutation just once daily, but you can also practice the series of poses as often as you like morning, noon or night. Surya Namaskar provides all of the key health benefits of yoga in a very succinct package. In addition to these physical benefits,. Surya namaskar practice stimulates and conditions virtually every system in the body. Over time, Surya Namaskar will help you achieve a sense of well-being and purpose. It is a spiritually uplifting exercise and promotes a keen awareness of the interconnectedness of your body, mind and breath.*

Keywords: Surya Namaskar, Yoga, Benefits.

Introduction

Surya Namaskara also known in English as Sun Salutation (lit. "Salute to the sun"), is a common sequence of Hatha yoga asanas. Sūrya Namaskāra refers as "Salutations to the Sun". This sequence of movements and [asanas](#) can be practised on varying levels of awareness, ranging from that of physical exercise in various styles, to a complete [sadhana](#) which incorporates asana, [pranayama](#), mantra and chakra meditation. It is often the beginning [vinyasa](#) within a longer yoga series. Sūrya Namaskāra may also refer to other styles of "Salutations to the Sun"..There are twelve poses in the Surya Namaskar series, and a full round consists of performing two sets of this series. During the second set, practitioners move the opposite leg from the one involved in movement during the first set. Whether you regularly practice yoga or not, you can enjoy the health benefits of Surya Namaskar. Performed correctly, it is a completely safe set of yoga poses that will not cause strain or injury. You will experience health benefits by practicing the Sun Salutation just once daily, but you can also practice the series of poses as often as you like morning, noon or night.

Benefits of Surya Namaskar

When practiced in the morning, Surya Namaskar relieves stiffness, energizes the body and refreshes the mind. During the day, it is a rejuvenating alternative to caffeine, and at night, Surya Namaskar can help you relax and get a good night's sleep. Surya Namaskar provides all of the key health benefits of yoga in a very succinct package. It is a holistic exercise that provides physical health benefits, but also mental or emotional as well as spiritual benefits. The obvious advantage of Surya Namaskar is the workout it provides for the muscles, but it also benefits joints, ligaments and the skeletal system by improving posture, flexibility and balance. In addition to these physical benefits,. surya namaskar practice stimulates and conditions virtually every system in the body. It is good for the heart and stimulates the cardiovascular system. It oxygenates the blood and helps strengthen the heart. Surya Namaskar is good for the digestive system and the nervous system. It stimulates the lymphatic system and supports respiratory system health, as well.

Practicing Surya Namaskar also benefits the Endocrine system and enables the various endocrinal glands to function properly. These include the thyroid, parathyroid and pituitary glands as well as the adrenal gland, testes and ovaries.

Like most forms of exercise, Surya Namaskar provides mental benefits to regular practitioners. You will feel wonderful after performing the Sun Salutation. It is relaxing and rejuvenating, and tension, stress and anxiety melt away as you perform Surya Namaskar.

Surya Namaskar is an excellent alternative to caffeine and other stimulants. If you suffer from insomnia or sleep disturbances, you will find practicing Surya Namaskar aids in helping you fall asleep without the need for depressants.

With regular practice, Surya Namaskar is an excellent way to manage stress and alleviate depression. You will expend a tremendous amount of energy as you move through the two sets of poses. Surya Namaskar teaches you to concentrate, and learning to achieve the poses is incredibly gratifying.

The 12 mantras for Surya Namaskar

12 mantras for Surya Namaskar are the auspicious mantras (chants). One should recite one mantra after completing one round of Surya Namaskar. Some people prefer to recite Gayantri Mantra after doing sun salutations. Following are the 12 mantras to recite while performing sun salutation.

1. Aum mitraya namah
2. Aum ravaye namah
3. Aum suryaya namah
4. Aum bhanave namah
5. Aum khagaya namah
6. Aum pushne namah
7. Aum hiranyagarbhaya namah
8. Aum marichaye namah
9. Aum adityaya namah
10. Aum savitre namah
11. Aum arkaya namah
12. Aum bhaskaraya namah

Conclusion

Sūrya Namaskāra may also refer to other styles of "Salutations to the Sun". Surya Namaskar is an exercise in itself, but it is also sometimes used as a warm up for other, more strenuous workouts. Regular practice of *Surya Namaskar* is the way towards good health. Surya Namaskar provides all of the key health benefits of yoga in a very succinct package. It is a holistic exercise that provides physical health benefits, but also mental or emotional as well as spiritual benefits. The obvious advantage of Surya Namaskar is the workout it provides for the muscles, but it also benefits joints, ligaments and the skeletal system by improving posture, flexibility and balance. In addition to these physical benefits, Surya namaskar practice stimulates and conditions virtually every system in the body. Over time, Surya Namaskar will help you achieve a sense of well-being and purpose. It is a spiritually uplifting exercise and promotes a keen awareness of the interconnectedness of your body, mind and breath.

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Effects of Yogic Practices on Schools Students

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Abstract

The Sanskrit word Yoga, which means "yoke", "to join", "to unite", or "to attach" has been derived from the root word Yuj. Yoga helps children see the beauty and light within themselves, thereby boosting their self-confidence, allowing them to feel more comfortable with their bodies, and helping them get in touch with who they are inside. A child who learns yoga, mindfulness and relaxation will be developing essential skills for a lifetime of health and wellness in mind, body and spirit. Stress is a major obstacle to academic achievement, and yoga's stress relief powers have been shown to boost student performance. A 2009 International Journal of Yoga study of 300 students looked at yoga's effect on the stress levels of adolescent students. After seven weeks of practicing asanas, breathing exercises and meditation, the students registered lower stress levels and higher academic performance. A 2015 study in the journal Evidence-Based and Complementary Medicine of 95 high school students found that yoga was superior to regular physical education classes in protecting against a slide in GPA as the school year wore on. Yoga has been shown to improve memory in both adults and children, a benefit that would seem certain to improve academic performance. In a 2003 study in the Indian Journal of Physiology and Pharmacology, 30 children were divided into three groups: yoga camp, fine arts camp or control group. The yoga group trained in asanas, breathing exercises, meditation and cleansing rituals for 10 days. The result was a 43 percent improvement in spatial memory test scores in the yoga group. (By comparison, the fine arts and control groups showed no changes.) In another study by the journal Pediatric Physical Therapy, 108 school children were divided into 4 groups, each of whom practiced a different style of pranayama (breathing exercises). Each of the four groups saw spatial memory scores improve by an average of 84 percent.

Keywords: Yogic Practices, Schools Students.

Introduction

In Vedic Sanskrit, the more commonly used, literal meaning of the Sanskrit word yoga which is "yoke", "to join", "to unite", or "to attach" from the root yuj. Yoga helps children see the beauty and light within themselves, thereby boosting their self-confidence, allowing them to feel more comfortable with their bodies, and helping them get in touch with who they are inside. A child who learns yoga, mindfulness and relaxation will be developing essential skills for a lifetime of health and wellness in mind, body and spirit.

Importance of Yoga for Students

From first graders to college seniors, students may have youth on their side — but that doesn't mean their lives are pressure-free. Hours a day sitting at desk or computer monitor and more hours doing homework cause a young body to tense up. Social and family pressures and, unfortunately, anxiety, abuse and bullying also take their toll. It all adds up to the same high stress levels that have caused the grown-up world to flock to yoga classes to find Zen.

It's therefore not surprising that educators are becoming increasingly interested in providing yoga classes at school. In fact, a 2015 survey by the journal Advances in Mind/Body Medicine found yoga being offered in 940 U.S. schools. Whether you're a student or the parent of one, you'll find the benefits of yoga for students to be quite compelling.

Overall Academic Improvement

Stress is a major obstacle to academic achievement, and yoga's stress relief powers have been shown to boost student performance. A 2009 International Journal of Yoga study of 300 students looked at yoga's effect on the stress levels of adolescent students. After seven weeks of practicing asanas, breathing exercises and meditation, the students registered lower stress levels and higher academic performance. A 2015 study in the journal Evidence-Based and Complementary Medicine of 95 high school students found that yoga was superior to regular physical education classes in protecting against a slide in GPA as the school year wore on.

Improved Memory

Yoga has been shown to improve memory in both adults and children, a benefit that would seem certain to improve academic performance. In a 2003 study in the Indian Journal of Physiology

and Pharmacology, 30 children were divided into three groups: yoga camp, fine arts camp or control group. The yoga group trained in asanas, breathing exercises, meditation and cleansing rituals for 10 days. The result was a 43 percent improvement in spatial memory test scores in the yoga group. (By comparison, the fine arts and control groups showed no changes.) In another study by the journal Pediatric Physical Therapy, 108 school children were divided into 4 groups, each of whom practiced a different style of pranayama (breathing exercises). Each of the four groups saw spatial memory scores improve by an average of 84 percent.

Improved Attention Span

Controlling attention is a challenge for children, partly because the brain's frontal lobes, which control the power of attention, mature later than some other functions. Yoga requires attention, which can be a challenge for younger yogis, but it has also been found to enhance the ability to control attention, even in hyperactive children. In fact, studies of yoga as a palliative for ADHD have shown promise across the board. In several studies reviewed by the journal Psychiatry, children with ADHD showed decreased symptoms and in some cases were able to lower dosages of medication.

Conclusion

The benefits of yoga are very far reaching indeed. There is no one other exercise avenue you can take that will address all of these issues in one simple session. For those of you that think yoga is too easy, I encourage you to try one class. You may find it is just what you are looking for.

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A Concept of Sports Training and its Effect on Consequences on Motor Learning.

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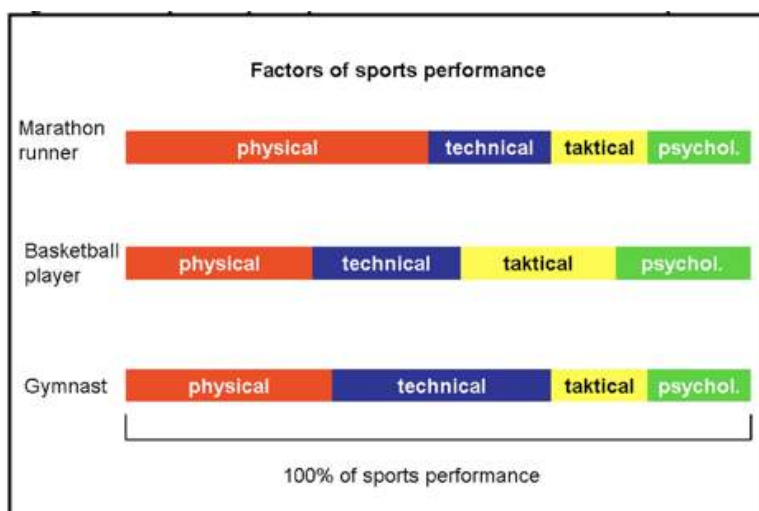
Structure of Sports Performance

Sports performance is understood as an extent to which a motor task limited by rules of a given sports discipline is accomplished. Sports performance factors are understood as a relatively independent parts of sports performance. Traditionally recognized factors of sports training in any sports disciplines include:

- Somatic factors
- Fitness factors
- Technical factors
- Tactical factors
- Psychical factors

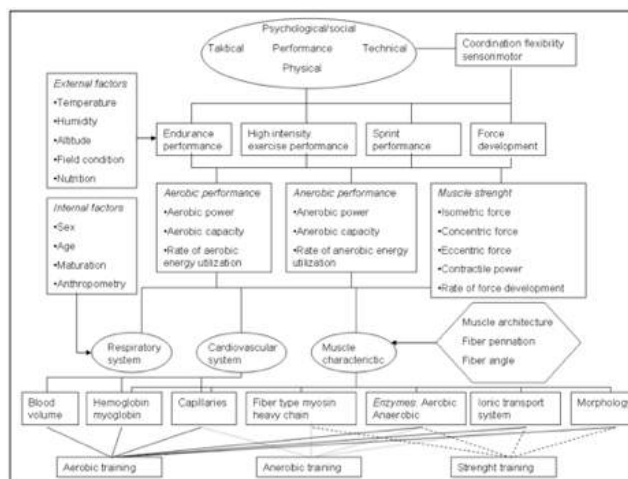
A common feature of the factors is that they can be affected by training (fitness, technical, tactical, and psychical) or they are taken into account in talent picking (somatic – e.g. selecting taller children for volleyball, basketball, or shorter for gymnastics respectively). Sports performance factors correspond to the above sports training components. Sports performance is influenced by a number of factors. The importance and hierarchy of the factors depends on a specific sports discipline.

Figure 1 Example of sports performance factors in different sports discipline



For marathon runners, long-term endurance training is an important part of the year’s microcycle, while with sports gymnastics development of this kind of endurance is not a priority. Model of factors determining sports performance is presented here as an example (Figure 2).

Figure 2 Example of sports performance factors.



As results from the above, performance of an athlete in sport depends on the athlete's technical, tactical, physical, and psychological-social characteristic. These factors are linked with each other, e.g., the technical skills can not be fully utilized without adequate levels of physical abilities. Conversely tactical component can not be fully utilized without adequate quality of technical skills.

The physical demands in sport are related to the activities of the athlete. The performance in selected sports discipline is based on the characteristic of the respiratory and cardiovascular systems as well as muscles, combined with the interplay of the nervous system. The muscular system is constituted by a multitude of components, which have important influence on the mechanical and metabolic behavior of the muscle. Muscle morphology and architecture, and myosin isoform composition play a major role in the contractile strength characteristics of the muscle evaluated as maximal isometric, concentric, and eccentric contraction force, maximal rate of force development, and power generation. Glycolytic muscle enzyme levels and ionic transport systems are major determinants of anaerobic power and capacity. Likewise, mitochondrial enzyme levels and capillary density exert a strong influence on aerobic muscle performance in turn affecting the force development and the maximal power output of human skeletal muscle, while also influencing the endurance performance of the muscle fibers. The respiratory, cardiovascular, and muscle characteristic are determined by genetic factors but they can also be developed by training. A number of environmental factors such as temperature and for outdoor sports, the weather and surface of competition ground also influence on the performance.

Process of sports training

Systematic development of the individual components of sports training is a long-term dynamic process, which has a predetermined logical relation. The processes of learning and development components of sports training can be divided into three areas. Physical component is developed in the **processes of morpho-functional adaptation**. Technical component is learning the **processes of motor learning** and psychological component is shaped in the **processes of psychosocial interaction**. A special place is occupied by tactical component which interferes into processes of both motor learning and psycho-social interaction.

In very simplified form we can talk about the process of morpho-functional adaptation to increased physical activity (the creation of energy reserves and energy distribution, the activity of various organs, etc.). At the same time you need to learn many new moves, but their acquisition is necessary to rely on principles of motor learning. Psycho-social aspects of sports training interaction are determined by real relationships of the participants in training and competition depending on their individual psychic condition. Sports training as a part of morpho-functional adaptation.

Sports training as a process of morpho-functional adaptation

Increasing performance means to reach systematically a certain number of both non-specific and specific changes mainly at cellular level (increase in energy potentials, development of physiological functions – breathing, heart activity and improving coordination). The basis of such changes can be easily explained by physiological concepts (homeostasis-stress-adaptation).

Homeostasis

Influenced by the environment, human organism tends to keep processes important for life and inner environment within biologically acceptable limits. Inner environment is controlled by blood, lymph and bioplasm and is maintained by blood circulation, breathing, digesting, etc. Homeostasis is a constant balanced state of the organism. From the point of view of sports training, homeostasis can be imagined as current level of training before annual preparatory training cycle.

Stress

Controlled violation of homeostasis with physical activity is a basic principle of improving fitness. Sports training attempts to violate the homeostasis of the athlete in a controlled way through exercise load. Exercise load affects the organism of the athlete as a stressor. Due to the effect of the stressor, various physiological functions of human organism get mobilised. Mobilisation of physiological functions of organism is manifested for instance by increased breathing and heart rates, growth in the level of adrenalin etc. In sports training, such stressors are called adaption stimulus. Adaption stimuli are applied in the form of physical exercise. Physical exercise is for example repeated weight lifting during bench press exercise in a gym.

Adaptation

As a result of repeated long-term effects of the adaptation stimuli is adaptation. Adaptation is defined as a beneficial change of the organism which aims at maintaining homeostasis at a new higher level in respect to quality. In sports, adaptation is the basis of higher levels of training.

To a significant extent, sports skills condition the level of the resulting sports performance. It is hard to imagine an athlete javelin thrower, who is perfectly prepared to force the site, but has not mastered the technique of the javelin. It can reach peak performance? The answer is simple: it cannot. The required quality of the javelin throw has not been acquired.

Skill is defined as learning acquired prerequisite for the implementation of a given motion task. Specific process in which there is a skills-acquisition process is called motor learning.

Theoretical background of motor learning is knowledge about nervous government and movement regulation which reflect mainly the activities of the organism. Nervous system receives processes and stores information from both outer and inner environment and based on this information it governs motor activity. This system includes the following parts: afferent (towards the center), central, efferent (away from the center) and feedback. In the central part, the supplied piece of information is processed and a corresponding motor program for solving the task is created. Through motor system, the efferent part implements the selected solution program. Feedback part has checking and regulative function while controlling motor activities.

The process of motor learning takes place in several stages:

Phase 1: **gross coordination**

Creating the initial ideas about the movement task, design flaws, the movement is very demanding on the mental and visual inspection, the result is generally imperfect movement with many errors. A high degree of mental and sight check.

Phase 2: **fine coordination**

The overall structure of motor skills gradually strengthens the proportion of conscious mental and visual inspection, the movement becomes more economical, temporal and dynamic parameters are stabilized, the individual begins to realize the movement as a whole.

Phase 3: **stabilization (automation)**

There is a stabilization of performance, the individual is able to perform movements without conscious control sequence of the resulting acts of physical movement, coordination of movements is a high-level, temporal and dynamic parameters are aligned, the result of movement in terms of performance is high.

Phase 4: **variable creativity**

High-acquired skills to creatively apply even in complex changing conditions. Some literature refers to the degree of sports mastery. This phase is achieved after many years of systematic training. A very good example of individual stages of motor learning is the duration of car driving practice, provided driving is regular. You may want to remember your first driving attempts while you were a student driver. Think about what is your driving like now, after years of training your driving skills.

Sports training as a process of psycho-social interaction

Bred athlete has both individual and social dimension, it can be legitimately talk about training as a psychosocial process of interaction, i.e. the formation of the psyche of man and his

behaviour in the network of social relations.

Exercise Load, Loading

The increase in performance generally is related to the achievement of adaptive changes in the organism. Adaptive changes can be achieved by repeated application of Exercise load. The way to achieve adaptive changes in the organism is a systematic repetition of Exercise load. Repeated loads refer to as adaptation stimulus. The principle of adaptive changes is the axis: **homeostasis** → **adaptation stimulus (load)** → **adaptation**.

If adaptation stimuli are applied properly, training can be expected to have accumulative effect. If motor activity is carried out in such a way that it evokes desirable current change of human functional activity, and consequently long-term, structural and psycho-social changes, it can be referred to as load.

Example If I run every other night in the park without much planning and adherence to the principles of sports training, sooner or later pass the same track may be quicker, but also feeling more relaxed, which is a simplified functional change. Psychosocial changes in this case represent my daily effort and responsibility run out every night out.

The classification exercise as adaptation stimuli

From the point of view of manipulation with exercise load, it is necessary to identify the rate of specificity of exercise with each exercise, its intensity and volume.

Rate of specificity of exercise

Indicates how to what extent exercise is similar to the final design of sports activities. Specificity relates to the sequence of implementing certain muscle groups, the velocity of movements, the effort exerted, the duration of muscle tension, movement frequency, its direction and movement.

We distinguish between the following exercises:

Competition exercises are fully consistent with the design competition (e.g., an attack hit in volleyball). Special exercises assume higher, up to a high degree of compliance with the content and structure of sport specialization. They represent different parts and sub-variants of the final design and is used to improve athletic performance factors (physical, tactics), such variations attack hit in volleyball (e.g., attack after turning 360 degrees, after run back from the network after a landing). Generally nonspecific exercises are exercises which are not related to the given sports specialization. They aim at general development of athletes. The meaning of the exercises is versatile and indirect in respect to specialized performance: (e.g. presupposition for development of reactive force for volleyball in gym, e.g. back squat).

Intensity

Intensity exercise is characterized by a degree of effort. (There is a difference do 100 push-ups in 1 hour or 20 minutes). Exercise intensity is on te outside manifested as movement velocity, movement frequency, size of resistance being overcome; and it is related to the the way of performance energy coverage.

We distinguish the ways energy coverage:

- Maximum intensity (phosphagen system) (ATP – CP).
- Submaximal intensity (fast glycolysis) (LA).
- Moderate intensity (slow glycolysis) (LA – O₂).
- Low intensity (slow glycolysis, fat oxidation) (O₂).

Heart rate indirectly reflects load intensity (heart rate increases with increasing load):

- HR < 150 beat/min (O₂)
- HR 150 – 180 beat/min (LA – O₂)
- HR > 180 beat/min (LA)→(ATP – CP)

Volume

The volume of exercise expresses the quantity of load. Volume can be expressed in time, i.e. duration of exercise or the number of repetitions of an exercise respectively. In training practice, the volume of load is expressed with general and specific training indicators.

General training indicators are used in all sports disciplines in a similar way. They are for example the number of training hours, number of training units or number of training days.

Specific training indicators are based on the contents of a specific sports discipline. They are for example the number of kilometers covered by running within II intensity zone, number of technically correctly carried out javelin throws, number of sets played in basic setup in volleyball or

the number of kilometers covered by cycling uphill etc.

Size of load

The size of load is understood as a multi-dimensional magnitude which is created by load characteristics:

- Exercise intensity
- Exercise volume
- Rest interval
- Way of rest

Crucial features for the volume of load are duration and intensity of exercise in the relationship of indirect proportion. (The higher the intensity, the smaller exercise volume.) Example: running the maximum intensity that will be achieved in terms of maximum speed we can keep the length of several tens of seconds. On the contrary, brisk walking, we are able to handle several hours walking trip.

Increase the size of the load can be in several ways:

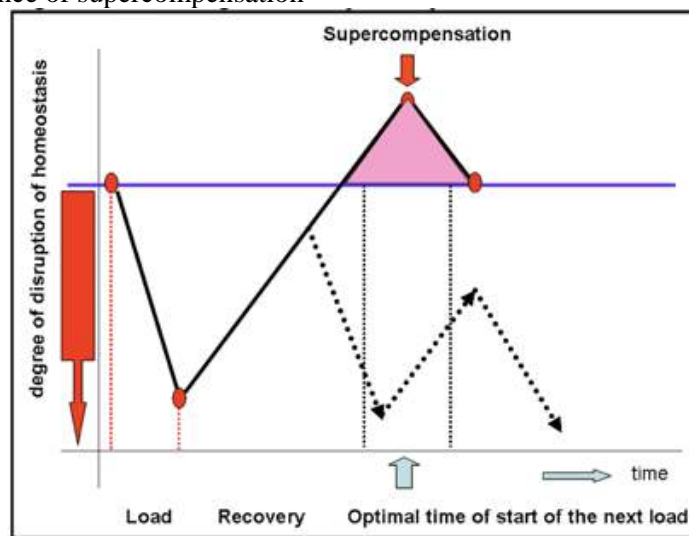
- Increase of volume
- Increase of intensity
- Increase volume and intensity together

Method of increasing the size of the load related to the current stage of sports training and the current phase of the annual macrocycles (see chapter 13).

Loading

Loading is a process of applying load which has been devined in advance repeatedly in time. The aim of loading is reaching cumulative training effect. Cumulative training effect arises form the phenomenon of supercompensation. Supercompensation is understood as increasing energy resources of the organism as a consequence of previous exercise load (defined by intensity and size).

Figure 3 The emergence of supercompensation



Example: if an athlete runner goes throug training II zone intensity (see chapter 7), he/she runs out of energy resources during training because of applied load. This phenomenon is manifested on the outside as fatigue. Training is followed by rest during which recovery and repletion of energy resources before further training takes place. Energy resources repletion, however, does not stop at the previous level but there is an increase in energy resources. Subsequent load (further training) should ideally start right at the moment of supercompensation. Telling the moment of supercompensation is very difficult and it is influenced by a number of factors. At present, the optimum time for further load can be told by using a method of the variability of heart rate. If further load starts at the moment of supercompensation, cumulative training effect can be expected to appear. If further load starts too early when the athlete's organism has not been fully recovered yet, exhaustion is likely to appear. In a long-term perspective, this can lead to negative consequences of sports training, i.e. overtraining.

Securing energy for sports performance

Metabolic specificity of exercise and training is based on an understanding of the transfer of energy in biological systems. Efficient and productive training program can be designed through an

understanding of the process of energy repletion for muscle work of various intensity and duration of load.

Basic Terminology

Bioenergetics or the flow of energy in a biological system, concerns primarily the conversion of macronutrients-carbohydrates, proteins and fats, which contain chemical energy.

Energy emerges with the decomposition of high-energy bonds in such macronutrients which release energy needed to carry out mechanic work.

Catabolism is the breakdown of large molecules into smaller molecules, associated with the release of energy (e.g. breakdown of glycogen into glucose).

Anabolism is opposite of catabolism. It is the synthesis of larger molecules from smaller molecules (e.g. synthesis of proteins from amino acids).

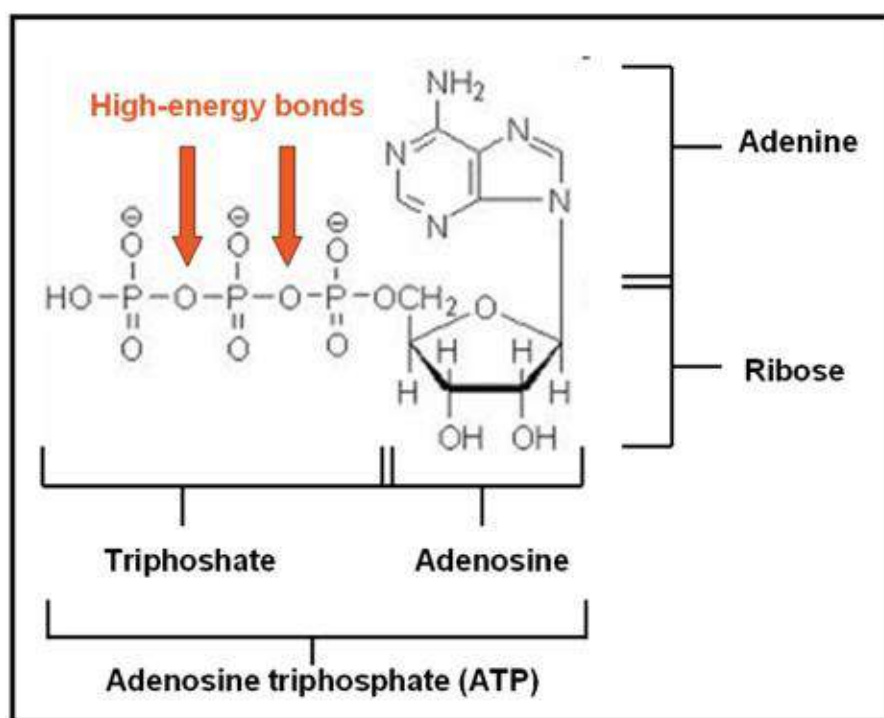
Exergetic reactions are energy-releasing reaction and are generally catabolic (e.g. breakdown of adenosine triphosphate into adenosine diphosphate).

Endergonic reactions require energy and include anabolic processes.

Metabolism is the total of all the catabolic or exergonic and anabolic or endergonic reactions in a biological system. Energy derived from catabolic or exergonic is used to drive anabolic or endergonic reactions through an intermediate molecule adenosine triphosphate (ATP).

Adenosine triphosphate allows the transfer of energy from exergonic to endergonic reactions. Without an adequate supply of ATP, muscular activity and growth would not be possible.

Figure 4 Molecule Adenosine triphosphate (ATP)



Adenosine triphosphate is composed of adenosine and three phosphate groups. Adenosine is the combination of adenine (a nitrogen base) and ribose (a five carbon sugar). The breakdown of one molecule of ATP to yield energy is known as hydrolysis, because it requires one molecule of water. The hydrolysis of ATP is catalyzed by presence of an enzyme called adenosinetriphosphatase (ATPase). This adduct is classified as a high energy molecule because it stores large amounts of energy in the chemical bonds of two terminal phosphate groups. Equation 1: hydrolysis of AT

Effect of Physical exercises, Fartlek Training and combined Training on Anxiety Among Men Trainee Sub Inspectors of Andhra Pradesh

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Abstract

The present study was undertaken to analyze the effect of physical exercises, fartlek training and combined training on anxiety among men trainee sub-inspectors of Andhra Pradesh. The researcher selected sixty four men trainee sub-inspectors were from beachpally, Andhra Pradesh. Their age ranged from 21 to 25 years. The subject chosen for the study divided into four equal groups and designed fartlek training group (FTG), Physical exercise group (PEG) and fartlek training with physical exercise programme (FTPEG) and control group (CG). Experimental groups underwent for twelve weeks of training program on alternative days. The data were collected before and after the training period. The collected data analysed with analysis of covariance (ANCOVA). The level of significant was fixed at 0.05 levels. Where ever the 'F' ratio found significant Scheffe's post test was used for find out the significant differences among the adjusted paired mean. The result of the study concluded that FTG, PEG and FTPEG are significantly improved anxiety level when compared with control group.

KEYWORDS: Fartlek training, Physical Exercises, Anxiety

Back Ground And Purpose

The police are people empowered to enforce the law, protect property and reduce civil disorder. Their powers include the legitimized use of force. The term is most commonly associated with police services of a state that are authorized to exercise the police power of that state within a defined legal or territorial area of responsibility. The word comes via medieval French police; from Latin *politia* "civil administration", from ancient Greek Law enforcement, however, constitutes only part of policing activity.

exercise is a planned and expedient activity whose primary goal is to improve the health and physical shape of the participants (Ostojic et al., 2009), and to active the adaptive process that will produce certain positive changes in the human body (Tivanovic, 2000). This running is the combination aerobic and anaerobic is accomplished in a varied pace run by interrupting steady, continuous running of short sprints, one established form of varied pace training is known as fartlek (Hazeldine 1985). "The individual's belief about himself or herself, including the person's attributes and who and what the self is" (Baumeister 1999).

Hypothesis

1. It was hypothesis that there will be significant improvement in anxiety level after the twelve weeks of fartlek training group (FTG), physical exercise group (PEG) and fartlek training with physical exercise programme (FTPEG) when compared with control group (CG).
2. It was hypothesis that fartlek training with physical exercise programme (FTPEG) will be significantly better than fartlek training group (FTG) and physical exercise group (PEG).

Methodology

The purpose of the study was to find out the influence of physical exercises, fartlek training and combined training on anxiety level among men trainee sub inspectors of Andhra Pradesh. The researcher selected sixty four men trainee sub-inspectors from beachpally, Andhra Pradesh. Their age ranged from 21 to 25 years. The subject chosen for the study divided into four equal groups and designated fartlek training group (FTG), physical exercise group (PEG) and fartlek training with physical exercise programme (FTPEG) and control group (CG). Experimental groups underwent for twelve weeks of training program on alternative days. The data were collected by questionnaire.

Result And Discussions

The analysis of data on anxiety has been examined by analysis of covariance (ANCOVA). The level of significant was fixed at 0.05 levels. Where ever the 'F' ratio found significant Scheffe's post hoc test was used for find out the significant differences among the adjusted paired mean.

Table-I Analysis of covariance of pre test, post test and adjusted post test on anxiety of experimental groups and control group

	FTG	PEG	FTPEG	CG	Source of variance	Sum of square	df	Mean square	'F'ratio
Pre-test mean	50.56	50.18	49.93	49.81	B:	5.25	3	1.75	0.107
S.D	3.96	3.85	4.43	3.95	W:	981.75	60	16.36	
Post-test mean	47.31	46.87	46.68	50.06	B:	118.92	3	39.64	3.27*
S.D	3.23	3.22	3.89	3.51	W:	725.56	60	12.09	
Adjusted Post-test Mean	46.94	46.82	46.84	50.32	B:	143.25	3	47.75	131.50*
					W:	21.42	59	0.363	

* Significant at 0.05 level, (The table value required for significance at 0.05 level with df 3 and 60 and 3 and 59 are 2.76)

The table-1 shows that there is significant difference in anxiety among the four groups such as fartlek training group(FTG). Physical exercise group (PEG) and fartlek training and physical exercise group (FTPEG) and control group(CG). Since the calculated 'F' value required being significant at 0.05 levels for 3.60 and 3.59 degree of freedom is 2.76, but the calculate values for anxiety of adjusted post test 'F' value is 131.50. This was higher than tabulated value. Since the obtain 'F' ratio is found significant, Scheffe's test is used as post hoc test.

Table-II

The Scheffe's test for the mean differences between paired mean of groups anxiety

Mean value				Mean difference	C.I
FTG	PEG	FTPEG	CG		
46.94	46.82	-	-	0.12	0.611
46.94	-	46.84	-	0.10	
46.94	-	-	50.32	3.38*	
-	46.82	46.84	-	0.02	
-	46.82	-	50.32	3.50*	
-	-	46.84	50.32	3.48*	

*significant at 0.05 level of confidence

The table-II reveals that there is significant difference among pair adjusted post-test means between FTG and CG, PEG and CG and FTPEG and CG. The result of the study clearly showed that there is significant improvement in anxiety due to the influence of FTG,PEG and FTPEG when compared with control group.

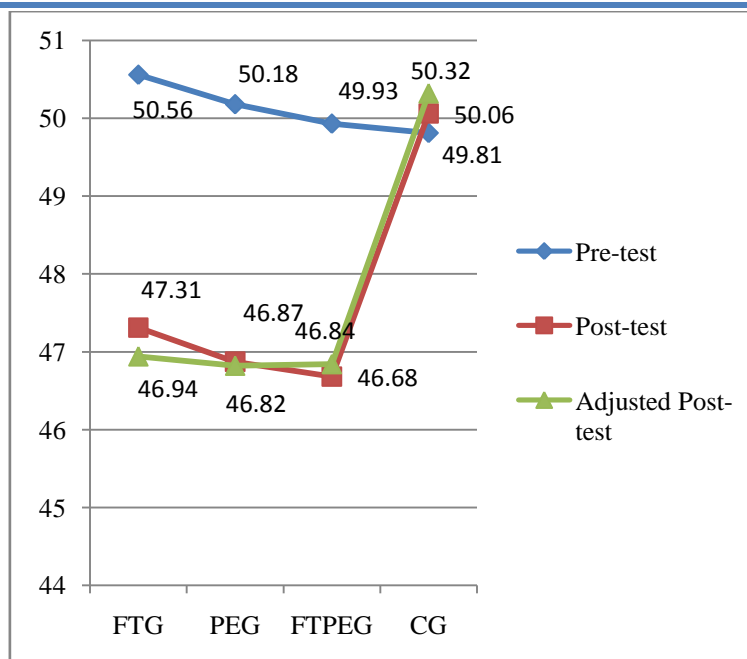


Figure 8: Mean scores of pre test, post test and adjusted post test of anxiety

Discussion On Hypothesis

1. The first hypothesis says that there will be a significant improvement in anxiety after twelve weeks of FTG, PEG and FTPEG as compared with control group. The result of the study shows that there was significant improvement in anxiety after twelve weeks of FTG, PEG and FTPEG as compared with control group. Hence the research hypothesis has been accepted.

2. The second hypothesis says that fartlek training with physical exercise programme (FTPEG) will be significantly better than fartlek training group (FTG) and physical exercise group (PEG). The result of the study shows that FTPEG is not better than FTG and PEG. Hence the research hypothesis has been rejected.

Discussion And Findings

The result of the study found significant improvement on anxiety level due to the effect of physical exercises, fartlek training and combined training (physical exercise and fartlek training). The following studies connected with the anxiety **Kocher K.C and Pratap V (1972)** found that physical exercise improve anxiety and decrease psychosomatic problems. Karen and Wendell (1994) suggested on the bases of literature that physical activity improves the anxiety level.

Conclusion

1. Anxiety level significantly improved by three experimental groups when compared with control group.
2. Further it was concluded that there is no significant differences exists between fartlek training group, physical exercise group and combined training group [fartlek training with physical exercise group] on anxiety.

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Assessment of Nutritional Status of the Youths Undergoing Physical Training for Police Recruitment

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Abstract

Nutrition and exercise physiology are interlinked. Physical fitness and training is very much dependent on nutritional status of an individual. Unfortunately, several research studies reveals the truth that considerable youths undergoing physical training are unaware of sports nutrition and lack appropriate nutritional knowledge to sustain while physical training. The present study with the aim to assess the nutritional status of the trainees undergoing physical pre-training for the recruitment of Police services was undertaken. A total number of 45 trainees undergoing training at for police recruitment from Amravati district, Maharashtra, India were selected for the present study. The age group of the trainees was between 18 to 25 years of age. Nutritional status of the trainees was assessed using a seven day 24 hour dietary recall and food frequency questionnaire, anthropometric measurements, fitness performance and biochemical analysis. Body mass index was calculated, which showed that 89% of the respondents fell under the optimal body fat category which 11% were underweight. Energy intake in male and female respondents was 2361.59 ± 355.86 and 2095.23 ± 321.85 respectively. Lower Protein intake too was observed, 2095.23 ± 321.85 and 52.94 ± 29.68 in males and females respectively. Iron deficiency was observed with 86% respondents had hemoglobin level below the normal range. The mean hemoglobin level in the male and female respondents was 13.21 ± 1.02 gdl and 9.92 ± 1.13 gdl respectively.

Introduction

Food is the potential form of energy, providing macronutrients and micronutrients required for healthy and active life. Nutrition and exercise physiology are interlinked. Nutrition forms the basis of physical performance as it provides required energy for biological work and delivers essential nutrients for repair and tear of the cells and synthesizing new tissues. Physical fitness and training is very much dependent on nutritional status of an individual. Unfortunately, several research studies reveals the truth that considerable youths undergoing physical training are unaware of sports nutrition and lack appropriate nutritional knowledge to sustain while physical training.

Present study was undertaken to assess the nutritional status of youths undergoing physical training preparing themselves for the recruitment in police services. The main purpose of the study is to assess the nutritional status, examine the relation between the nutrient intake and fitness performance.

Materials and Methods

The present study with the aim to assess the nutritional status of the trainees undergoing physical pre-training for the recruitment of Police services was undertaken. A total number of 45 trainees undergoing training at for police recruitment from Amravati district, Maharashtra, India were selected for the present study. The age group of the trainees was between 18 to 25 years of age. Nutritional status of the trainees was assessed using a seven day 24 hour dietary recall and food frequency questionnaire, anthropometric measurements, fitness performance and biochemical analysis.

Result and Discussion

Youths, both male and female seek recruitment in Police services, thus opting to undergo pre-recruitment training to succeed in Maharashtra Police recruitment standard physical test which includes endurance physical activity, running. A male candidate to succeed comfortably needs to run 1600 meter in minimum 4 minutes 50 seconds and less while a female candidate has to run 800 meters in 2 minutes 40 seconds and less. The present study was conducted to understand the dietary pattern of the trainees and its relationship with their performance to improve the fitness levels of these respondents.

Body mass index was calculated, which showed that 89% of the respondents fell under the optimal body fat category which 11% were underweight (figure I). A significant increase was seen in the fat mass among females compared to males. ($p=0.003$)

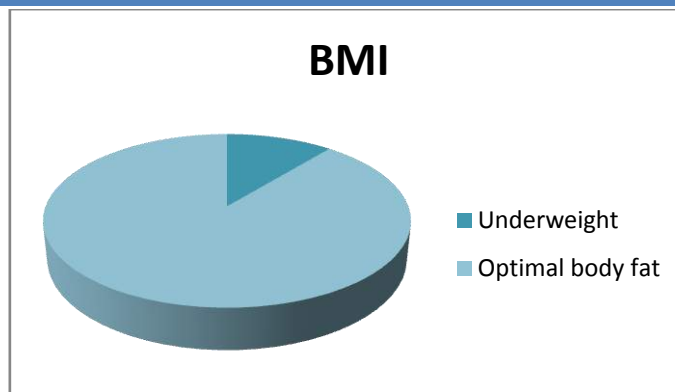


Figure I. Distribution of Trainees based on BMI

Skipping meals was the most common routine among the trainees, particularly the lunch among the female respondents. Twenty four percent respondents (81% males and 19% females) consumed nutritional supplements. The recommended nutritional needs were not met by the respondents. Dietary pattern of the respondents showed deficiency in macronutrients and micronutrients. (Table I). Energy intake in male and female respondents was 2361.59 ± 355.86 and 2095.23 ± 321.85 respectively. Lower Protein intake too was observed, 2095.23 ± 321.85 and 52.94 ± 29.68 in males and females respectively. Iron deficiency was higher.

Nutrients	Males		Females	
	Observed	Recommended	Female	Recommended
Energy (Kcal.)	2361.59 ± 355.86	4300	2095.23 ± 321.85	3400
Carbohydrates (g)	405.02 ± 87.03	--	322.49 ± 77.51	--
Protein (g)	2095.23 ± 321.85	100-120	52.94 ± 29.68	80-100
Fats(g)	53.83 ± 18.41	--	50.39 ± 14.25	--
Calcium (mg)	976.32 ± 291.02	1000-2000	756 ± 176.33	1000-2000
Iron (mg)	16.62 ± 2.47	50-57	13.41 ± 2.56	60-100
Vitamin C (mg)	102.23 ± 62.65	100-200	98.54 ± 63.61	100-200

Table I. Mean Nutrient Intake

Iron deficiency was observed with 86% respondents had hemoglobin level below the normal range. The mean hemoglobin level in the male and female respondents was 13.21 ± 1.02 gdl and 9.92 ± 1.13 gdl respectively, much below the reference values. Iron deficiency is the most common trait in the Indians and those in endurance physical activity needs to maintain the iron immaculately as intense training periods are associated with an increase in the plasma volume and a corresponding reeducation in iron status, studies suggests.

To maintain maximum results the sports person has to be fit. Amongst all aspects of various factors playing major role in the foundation of fitness, good nutrition gets a lion's share in building an appropriate body for the best performance. The body needs the right kind of fuel to hit the record. Nutrition not only plays a role in the performance, but it also helps to prevent injuries, enhance recovery from exercise, help maintain body weight and improve overall health.¹

Conclusion

The diet of trainees for police recruitment does not fully meet the recommended requirements and in this situation cannot ensure maximum adaptation to very intense and/or long-duration physical loads such as running. The diet of these trainees undergoing endurance sports training must be optimized, adjusted and individualized. Particular attention should be focused on female athletes. Nutritional awareness is very much recommended, thus there is a great need for nutritional guidance and counseling for the trainees.

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Sport Psychology in India

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Introduction

This article discusses the status of and possible future directions in sport psychology in India and will be organized around three topics. First, the history and current organizational structure of sport psychology in India will be described. Second, key lines of sport psychology research will be identified.

Organizational Structure of Sport Psychology

The first major development in the establishment of the Indian sports science movement was initiated when an international course on sports medicine was held in Athens, Greece, in 1970. Attending this course were three delegates from India who participated on behalf of the Indian Medical Association and the Indian Olympic Association. Upon their return home, the participants decided to form the Indian Association of Sports Medicine (IASM). Dr. Alope Ghosh, leader of the delegation to Athens, became the Founder President of the IASM. Since its formation, annual conferences of the IASM have been held at regular intervals and have attracted physicians, physiologists, physical educators, and coaches alike.

During the seventh annual conference of the IASM at Varanasi in 1977, delegates interested in the psychological aspects of sports decided to form a group of their own. Thus the Indian Association of Sports Psychology was born. It had about 20 founding members, including myself. An official journal for the association was begun. Unfortunately, because of a lack of resources and an underdeveloped communication network, only a single issue of the journal was published. Moreover, due to a lack of resources, the Indian Association of Sports Psychology itself became defunct. Hence, the first attempt to organize sport psychology in India failed.

Recently, efforts have again been made to organize those individuals interested in the field. In particular, Dr. M.L. Karnlesh of the College of Physical Education, Patiala, took the initiative of forming the Sports Psychology Association of India in 1985. Although the association is still in the early stages of its development, two annual conferences have already been held. Unfortunately, the financial base of this organization is not yet firmly established enough to enable it to publish its own journal.

Indian sport psychologists are also showing their interest in international affairs. Three Indians are members of the International Society of Sport Psychology (ISSP). In addition, India has offered to host the upcoming Managing Council meeting of ISSP in Gwalior in 1988.

Research and Academic Activities

India. sible directions for future developments in Indian sport psychology will be examined Research and Academic Activities The first major effort to study and to apply sport sciences in India was started at the Netaji Subhas National Institute of Sports (NIS) in Patiala. The Maharaja of Patiala donated his palace and surrounding facilities for the development of sport sciences in the country. The Government of India took the initiative in establishing the institute in 1961, and it has since become Asia's premier sport institute.

From its inception the NIS has focused its attention on training the athletes for international competitions, preparing elite coaches, and conducting research in sport sciences. It also serves as a documentation center and hosts national and international conferences. To facilitate the development of sports in various regions, the NIS has opened branches in different parts of India. The eastern wing of the NIS is in Calcutta, the southern wing is in Bangalore, and the northern wing, which serves mainly as a coaching center, is located in New Delhi.

Sport psychology has played only a minor role in the development of NIS. It was not until 1980 that a full-time sport psychologist took charge in Patiala. Sport Psychology in India 163 Agyajit Singh, professor of sport psychology at NIS, is a motor learning specialist who has conducted initial research ~rojects on reaction time with elite athletes (Singh, 1986a) and on personality ~h&cteristics of top Indian athletes (Singh, 1986b).

A main obstacle to the growth of research in Indian sport psychology is the absence of adequate numbers of trained personnel in the area. This results from the lack of formalized academic course offerings in sport psychology in the country. The NIS offers courses for coaches which contain some topics from sport psychology. Some reference is also made to psychology topics in physical education courses at different universities. However, the coverage of this area is only superficial.

There are few academic centers where sport psychology has been studied more intensely by interested individuals. They include Lakshmbai National College of Physical Education, Gwalior; Punjabi University, Patiala; Post Graduate Degree College of Physical Education, Amravati; University of Kalyani; University of Calcutta; and College of Physical Education, Patiala.

Future Scope for Sport Psychology in India

Following the 1982 Asian Games in New Delhi, a separate ministry for sports was established by the Government of India. This step reflects the positive attitude the government has recently taken toward sports and physical activity. Budget allocations for sports have also increased substantially and facilities are being provided for research in sport sciences. Participation in physical activity is also being encouraged from the grass-roots level, that is, from the elementary school level. Sport psychology is also obtaining its share of these increased resources and attention to sports. Hopefully this will continue. At the present time, India, the second most populous nation in the world, does not have the necessary infrastructure to serve its athletes by helping them enhance their psychological skills. However, several amateur and professional sport teams have taken interest in utilizing the services of sport scientists (including sport psychologists) to help athletes achieve optimal performance. This is an encouraging development. There is also a need to conduct more research in order to understand the psychology of sports in the Indian context and to determine whether the research findings obtained in other countries hold there as well. Finally, if sport psychology in India is to develop further, top priority must be given to the establishment of degree courses and programs at academic institutions. This would result in the first generation of Indian scientists specifically trained in the field of sport psychology.

conclusion

It was indicated in The World Sport Psychology Sourcebook (Salmela, 1981) that sport psychology in India can only move in one direction-up. Thanks to the development of the sport sciences in India in general, increased government support for sport and the sport sciences, the forming of the Sport Psychology Association of India, and the initial research efforts of a number of hard-working scientists, sport psychology is beginning to take shape. It is hoped that through continued government support, better communication between those interested in sport psychology, the emergence of psychological skills training programs for top athletes, and the education of scientists specifically trained in sport psychology, the field will continue to grow.

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Bicarbonate Loading

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Abstract-

Food & Nutrition for sports has always been the area of debate since last many decades. There are always two school of thoughts for every method & every product. Bicarbonate loading is one of those topics which is very less known and less heard about but can be seen as a potentially beneficial method to athletes. A number of research questions need to be addressed to enhance applications of bicarbonate loading in the elite sport environment. This a brief discussion about the studies and research carried out on bicarbonate loading.

KEYWORDS – Bicarbonate, Acute Loading, Serial Loading, Chronic Loading

Introduction-

Bicarbonate loading is a popular ergogenic aid used primarily by athletes in short-duration, high-intensity sporting events and competitions. Controlled experimental trials have shown that small (worthwhile) benefits can be obtained from acute doses of bicarbonate taken before exercise. Gastrointestinal problems encountered by some athletes limit the widespread use of this practice, however. The transfer of positive research findings to the competitive environment has proved problematic for some individuals. More recent applications involve serial ingestion of bicarbonate over several days before competition or during high-intensity training sessions over a few weeks.

Physiology Of Sodium Bicarbonate In Sports-

Exogenously increase sodium bicarbonate levels could reduce H⁺ levels generated in the anaerobic glycolytic metabolism, hence increasing the lactate flux in the muscles active to the extracellular medium. In this way, the resynthesis of adenosine triphosphate (ATP) by glycolysis may be allowed to continue under more favorable conditions, delaying the onset of muscle fatigue in high intensity efforts and can help athletes in their performance.

Sodium Bicarbonate In Sports-

Sodium bicarbonate is widely available in the form of baking soda and combination products. It reacts almost instantaneously to neutralize HCl to produce CO₂ and NaCl. The formation of CO₂ results in belching and gastric distention. Sodium bicarbonate is often referred to as a "systemic" antacid because the unreacted fraction is readily absorbed into the general circulation and may alter systemic pH. The potential for Na⁺ overload and systemic alkalosis limits its use to short-term relief of indigestion. Na⁺ overload resulting from repeated use of large doses may contribute to fluid retention, edema, hypertension, congestive heart failure, and renal failure. Sodium bicarbonate is contraindicated in patients on a low-salt diet.

Consumption of sodium bicarbonate (300 mg/kg 1-2 h before exercise) can temporarily increase blood bicarbonate concentrations, enhancing extracellular buffering of hydrogen ions which accumulate and efflux from the working muscle. Such 'bicarbonate loading' provides an ergogenic strategy for sporting events involving high rates of anaerobic glycolysis which are otherwise limited by the body's capacity to manage the progressive increase in intracellular acidity.

Studies show that bicarbonate loading strategies have a moderate positive effect on the performance of sports involving 1-7 min of sustained strenuous exercise, and may also be useful for prolonged sports involving intermittent or sustained periods of high-intensity work rates. This potential to enhance sports performance requires further investigation using appropriate research design, but may be limited by practical considerations such as gut discomfort or the logistics of the event. The effect of chronic use of bicarbonate supplementation prior to high-intensity workouts to promote better training performance and adaptations is worthy of further investigation. While this relatively simple dietary strategy has been studied and used by sports people for over 80 years, it is likely that there are still ways in which further benefits from bicarbonate supplementation can be developed and individualized for specific athletes or specific events

Bicarbonate loading can be classified into 3 stages by -louise m. Burke and david b. Pyne -

Acute Loading Phase

Serial Loading Phase

Chronic Loading Phase

Acute Loading -

Acute Loading is the most extensively researched and practiced form of bicarbonate loading. Studies have generally examined the physiological and performance effects in laboratory settings or in individual sports such as middle-distance running¹, swimming,² and rowing.³

Analysis of the relevant studies shows there is a worthwhile benefit from acute loading, particularly in events or sports in which high lactate and hydrogen-ion production and fatigue are issues. Acute dose of bicarbonate is 0.3 g of sodium bicarbonate/kg body weight, taken 60 to 90 minutes prior to the event. This loading stage needs more clarity because the dose given above is for a single stage event, and not for multi staged events which has heats, semifinals, finals the same day.

Serial Loading –

Rather than loading up acutely step wise loading is done well before the event period. The advantage of this method is that the muscle extracellular buffering capacity is enhanced with a reduced risk of gastrointestinal distress. Typically, a slightly larger dose than the acute dose is used: 0.3 to 0.5 g NaHCO₃ split into 3 or 4 smaller doses spread over the day or for 3 to 5 days before the exercise bout or competitive event.

Now athletes can stop the dose completely one-two days prior to competition in order to avoid any complications further on the day of event.

Chronic Loading-

A more recent line of investigation is the chronic use of bicarbonate to support training activities rather than competition. Edge and coworkers⁴ at the University of Western Australia recently reported the effects of chronic bicarbonate loading (0.4 g/kg body mass per day for 3 d/wk for 8 weeks) in 16 moderately trained female athletes.

The bicarbonate-supplemented group showed substantially greater improvements in both lactate threshold (26% vs 15%) and time to exhaustion (164% vs 123%) than a placebo group.

The chronic-loading approach also appears to have some efficacy for team-sport athletes preparing for weekly competition over a several-month season.^{5,6}

Conclusion-

A lot of research is yet to be done on this topic for frank use of this method by athletes as we are unable to get the accurate dosage for different events, for different players at different positions & its other determinants, Gastrointestinal distress concomitant with ingestion of alkalizing substances remains as a major factor reducing potential performance-enhancing effect and limiting the use of these substances in sports, even when taken in calibrated doses. With advent of developing sports medicine we hope to gain more clarity on this topic in near future.

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Safety And First Aid In Sports Injury

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“Prevention can distinguish you; lack of safety can extinguish you”

Introduction:

“What men call accident is the doing of God’s providence”.Accidents often take place at home, in school, on play fields, Industries or elsewhere. So everyone should know what to do in such situation, if proper health is not given in time the patient’s condition could get worse or if proper care is not taken it may cause danger to life. The need and importance of first aid is more realized when any individual dies before you just due to the poor knowledge or ignorance of first aid.

Physical education and sports activities demand sufficient knowledge of first aid since participation in sports involves variety of movements which sometime lead to variety of injuries. Therefore, whosoever enter in the play field, gymnasium, swimming pool, different kinds of terrain and so on must have the knowledge of fundamental principle of first aid, he may be a teacher, trainer, training, attendant on the swimming pool and in the gymnasium. Injury in sports may be as small as minor scratch on the body and as serious as may be danger to the life, needing prompt first aid. First aid needs to be immediate in severe accidents complicated by bleeding, shock and loss of consciousness.

Meaning & definition of first aid:

The terms **‘FIRST AID’** was adopted officially in England for the first time in 1879 by the Saint John Ambulance Association, First aid is a combination of simple but quite effective and active measures to prevent possible complications. First aid means the treatment given to the casualty till proper medical aid comes. In other words, the first state is the process of carrying out the essential emergency treatment of an injury/illness in order to benefit the casualty till the proper Medical Services are rendered.

First aid is the immediate and temporary care given to the victim of an accident or sudden illness.Purpose of First Aid till the medical aid is given by the competent and qualified medical personnel.

Purpose of first aid:

The purpose of **“First Aid”** is to preserve life, assist recovery and prevent aggravation of the condition, until the services of a doctor can be obtained, or during transport to hospital or to the casualty’s home.

Why safety is required in physical education and sports?

A physical education safety is an important component of board of education risk management process as well as establishing procedure to reduce the potential for injury, the existence of the policy signals to the public, to schools, colleges staff and to students that safety is priority with the board of education, people thinking and talking about safety, helps to create a safety mindset in the school, colleges and the community. Parent, students, teachers and community members think about safety before participating in any physical activity

Reasons of sports injury:

Injuries on the playfields, swimming pool and gymnasium may take place due to the reasons listed below.

1. Poor Physical fitness of players/students.
2. Poor psychological preparation to take part in a particular activity/game.
3. Inadequate warming up before practicing/competition.
4. By using sub-standard sports equipment or sports wears.
5. Adopting fault skill of the particular games.
6. Lack of knowledge of rules of the games.
7. Poor maintenance of sports field, surfaces of gymnasium, swimming pools.
8. Absence of a qualified supervisor, coach, teacher on sports field.

9. Absence of a life savior/guard on the swimming pool.
10. Arrogant behavior of players.
11. Advance climatic conditions for training/competition.
12. Heterogeneous grouping of physical education class or team for practice/training.
13. Avoiding the use of sports guard.

Principles of first-aid:

1. Do first things first quickly, quietly and without panic.
2. Guard against or treat for shock by moving the casualty as little as possible and handling him/her gently.
3. Donot attempt too much.
4. Reassure the casualty and those around in order to reduce tension.
5. Give artificial respiration, if breathing has stopped.
6. Stop any bleeding.
7. Do not allow people to crowd around as fresh air is essential.
8. Do not remove clothes unnecessarily.
9. Arrange for the removal of the casualty to the care of a doctor or hospital as soon as possible.

Use of safety equipments for the sports:

1. **Helmet:** It is used in the games like cricket, motor bike racing, skeing to the purpose of preventing head injury.
2. **HeadGuard:** boxing, skating, cycling.
These helmets or head guard must be light weight but it must be tough and strong. It must be comfortable to wear. It should not obstruct the vision and sound.
3. **Teeth Guard:** boxing and taekwondo.
4. **Chest guard:** Taekwondo
5. **Safety Belts:** they are like lumber steel belts(to prevent injury to the lumber vertebral bones) example:weight lifting
6. **Abdominal guard:** they are used in the games like cricket, Taekwondo,boxing
7. **Thigh &Arm Guard:** used in cricket
8. **Knee-caps:** Skating, motor bike races, volleyball
9. **Gloves:** used for safety of cricket players, Gloves of baseball wicket keepers.
10. **ShinGuard:** Football, Hockey and Taekwondo
11. **Shoes:** fast runner has to use spike shoes for extra grip and extra speed on the other hand football players must use stud shoes for playing on wet football ground.
12. **Avoid misused of Doping agents:** It is seen that those players who use drug and doping agent have got higher risk of developing sports injuries.

Conclusion:

“Safety Rules are your Best Tools”

Physical education safety is the responsibility of the entire community and everybody must aware of this.

Recommendations:

Every schools, colleges and institutes must have a plan that describes the action to be taken when an injury or accident occurs.

“Send a message to a young people and make it easier to implement physical education and sports safety guidelines.”

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Effect of Six Week Brisk Walking on Vital Capacity of Women

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Abstract

The purpose of this study was to see the effect of 6 week walking on vital capacity of women of Amravati. To achieve this purpose twenty (n = 20) women were randomly selected from university Campus who regularly walk at evening time. The criterion variable of vital capacity was measured by using the equipment of Peak Flow Meter. Pre Test was taken after that the training was planned with the consultation of the experts and the training was conducted for six weeks duration. After six week training Post Test were administered and data were collected, the collected data were analyzed by using 't' test. The level of confidence was fixed at 0.05 levels in all cases. Result shows that on the basis of mean difference there was difference between the means of pre and post test of control and experimental group of women in reference to vital capacity. To see this difference is significant or not at 0.05 level of significance. Researcher further calculated 't' test & above table shows that there is significant difference between pre and post test of experimental group of women as the calculated 't' value 3.53 was greater than tabulated 't' value 2.101. But there is insignificant found between pre and post test of control group of women, as the calculated 't' value 1.11 is lesser than the tabulated 't' value 2.101. From the above result we found that there is significant difference between pre and post test of experimental group of women compared to control group. This means that brisk walking effect on vital capacity of women as well as it may affect ones health also.

Keyword: Vital Capacity, Brisk Walking, Women, etc.

Introduction

Earlier World Health Organization had defined "Health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." But In 1986, the World Health Organization further clarified that health is "A resource for everyday life, not the objective of living. Health is a positive concept emphasizing or focusing on social and personal resources, as well as physical capacities." More recently, by seeing many definitions we can say that health is as the ability of a body to adapt to new threats and infirmities.

An individual who experiences physical health, perform their work at peak performance, they are free from disease and infirmity. Physical health and wellbeing involves pursuing a healthful lifestyle to decrease the risk of disease. Maintaining physical fitness, regular exercise, balanced nutrition, and adequate rest, can protect and develop the endurance of a person's breathing and heart function, muscular strength, flexibility, and body composition and also help to reduce the risk of an injury or health issue.

Women in India facing lots of problems regarding health issues. Health of women in India can be measured in terms of multiple indicators, which vary by geographically, climatically, [socioeconomic](#) conditions, culture and family size. To adequately improve the health of [women in India](#) various health issues must be analyzed in relation to global health averages and also in comparison to others. Currently, women in India facing various health problems, which ultimately affect the future of generation.

The physiological parameters seems to play a very important role in the modern life in production of more excellent performance in daily activities, moreover because of fluctuation of physiological parameters and difference in time the capacity of doing of women may varies. It is well known that the individual performance in any activities follows diurnal physiological parameters. Pattern method may be derived to condition an individual to produce peak performance with change in diurnal physiological parameters. Unfortunately little research literature is available on these aspects. Therefore, physiological parameters such as cardio-vascular endurance, vital capacity, heart rate and hemoglobin receive a special consideration and it is an important requisite for outstanding performance in any activity.

Walking is the most common used simple activity to any individual. As it requires no special skills or facilities without major risk of injury. The favorable effects of walking on both physiological and wellbeing are firmly established. The quantity and quality of walking exercises can develop and maintain cardio respiratory, muscular fitness and flexibility in healthy people. In recent day, busy individual attracted with offering benefits with minimum investment of time. Walking can be considered the preferred exercise for primary education because it provides both endurance and balance. It is the primary performance on which many activities of daily activities depend upon

walking which has been shown to have significant benefits and minimal associated risks. Mainly brisk walking affects vital capacity of an individual.

Vital capacity is the total amounts of air that can be forcibly expire after a complete inspiration has been used frequently as a measure of adequacy of the respiratory system. Although it measures the approximately capacity of the lungs, recent information indicates it is of little use in predicting ability to perform tasks of endurance. Obviously other factors are more important. For example, any limitations of the oxygen delivery system to the cells will reduce the effectiveness of the delivery; regardless of vital capacity is the ability to take in more air per unit of time with fewer, but deeper inspiration, thus prolonging the onset of fatigue in the respiratory muscle.

Materials and Methods

The purpose of this study was to see the effect of 6 week walking on vital capacity of women of Amravati. To achieve this purpose twenty (n = 20) women were randomly selected from University Campus who regularly walk at evening time. The criterion variable of vital capacity was measured by using the equipment of Peak Flow Meter. At first information were given to women about the procedure of the test. women to attach the mouthpiece to the peak flow meter and take a deep breath, then place the peak flow meter mouthpiece in their mouth and close their lips tightly around the outside of the mouthpiece. And they are advice to exhale out as hard and as fast as possible (using a "huff" rather than a full breath out). Three attempts were given. The highest value of all attempts were recorded. The value recorded is peak expiratory flow (PEF), is in liters per minute. Pre Test were taken after that the training was planned with the consultation of the experts and the training was conducted for six weeks duration.

Table: 1

Week	Warm-up Walking	Brisk Walking	Cool-down Walking
1 st	5 minutes	5 minutes	5 minutes
2 nd	5 minutes	10 minutes	5 minutes
3 rd	5 minutes	15 minutes	5 minutes
4 th	5 minutes	20 minutes	5 minutes
5 th	5 minutes	25 minutes	5 minutes
6 th	5 minutes	30 minutes	5 minutes

After six week training Post Test were administered and data were collected, the collected data were analyzed by using ‘t’ test. The level of confidence was fixed at 0.05 levels in all cases.

Table: 2

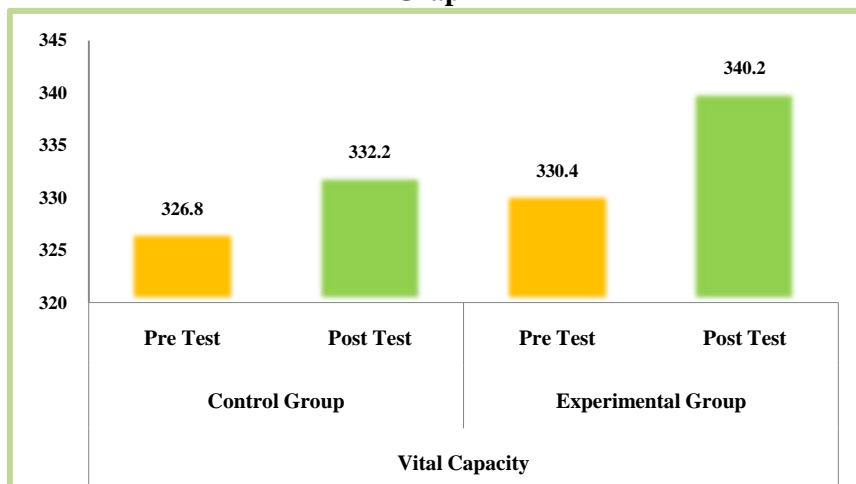
Comparison of Vital capacity of Women

Variables	Group	Test	Mean	S.D	S.E	M.D	D.F	Obt ‘t’	Tab ‘t’
Vital Capacity	Controlled	Pre test	326.8	8.84	4.852	5.4	18	1.11	2.101
		Post test	332.2	12.54					
	Experimental	Pre test	330.4	5.35	2.768	9.8		3.53*	
		Post test	340.2	6.92					

*Significant at 0.05 Level

The above table shows that on the basis of mean difference there was difference between the means of pre and post test of control and experimental group of women in reference to vital capacity. To see this difference is significant or not at 0.05 level of significance. Researcher further calculated ‘t’ test & above table shows that there is significant difference between pre and post test of experimental group of women as the calculated ‘t’ value 3.53 was greater than tabulated ‘t’ value 2.101. But there is insignificant found between pre and post test of control group of women, as the calculated ‘t’ value 1.11 is lesser than the tabulated ‘t’ value 2.101.

Graph



Conclusion

From the above result we found that there is significant difference between pre and post test of experimental group of women compared to control group. This means that brisk walking effect on vital capacity of women as well as it may affect ones health also. So it can be conclude that brisk walking is much better than normal walking. Brisk walking burn calories much faster than normal walking. Brisk walk will also boost individual from the deadly "inactive" category. A large study showed that one could reduce his/her health risk by as much as 30 percent with a brisk 20-minute walk each day.

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Causes And The Role Of Exercise In Treatment Of Obesity**Dr .Dattatray D . Karangale**Smt. Radhikatai Pandav College
of Engineering Nagpur**Abstract**

The purpose of the present paper is to explore the causes, and treatment of obesity. Obesity means having too much body fat. It is being too overweight and it is unhealthy. Some define it as being 20 percent over the ideal body weight for their stature. Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health, leading to reduced life expectancy and/or increased health problems. People are considered as obese when their body mass index (BMI), a measurement obtained by dividing a person's weight in kilograms by the square of the person's height in metres, exceeds 30 kg/m. Obesity increases the likelihood of various diseases, particularly heart disease, type 2 diabetes, obstructive sleep apnea, certain types of cancer, and osteoarthritis. Excessive body weight is associated with various diseases, particularly cardiovascular diseases, diabetes mellitus type 2, obstructive sleep apnea, certain types of cancer, and osteoarthritis. As a result, obesity has been found to reduce life expectancy. Obesity, however, has many causes. The reasons for the imbalance between calorie intake and consumption vary by individual. Your age, gender, genes, psychological makeup, and environmental factors all may contribute. Weight gain occurs when you eat more calories than your body uses up. If the food you eat provides more calories than your body needs, the excess is converted to fat. Initially, fat cells increase in size. When they can no longer expand, they increase in number. If you lose weight, the size of the fat cells decreases, but the number of cells does not. Obesity can be associated with other eating disorders, such as binge eating or bulimia. Obesity treatment strategies vary from person to person. Beginning treatment early is an essential part of success, and it is important to talk with your physician before beginning any weight-loss program. There are several methods for treating obesity, such as behavior modification, physical activity, non clinical weight management programs, medically managed weight-loss and surgical treatment. Whether you're at risk of becoming obese, currently overweight or at a healthy weight, you can take steps to prevent unhealthy weight gain and related health problems.

Introduction

Obesity means having too much body fat. It is being too overweight and it is unhealthy. Some define it as being 20 percent over the ideal body weight for their stature. Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health, leading to reduced life expectancy and/or increased health problems. People are considered as obese when their body mass index (BMI), a measurement obtained by dividing a person's weight in kilograms by the square of the person's height in metres, exceeds 30 kg/m. Obesity increases the likelihood of various diseases, particularly heart disease, type 2 diabetes, obstructive sleep apnea, certain types of cancer, and osteoarthritis. Obesity is most commonly caused by a combination of excessive food energy intake, lack of physical activity, and genetic susceptibility, although a few cases are caused primarily by genes, endocrine disorders, medications or psychiatric illness. Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health. It is defined by body mass index (BMI) and further evaluated in terms of fat distribution via the waist-hip ratio and total cardiovascular risk factors. BMI is closely related to both percentage body fat and total body fat. A "super obese" male with a BMI of 47 kg/m²: weight 146 kg (322 lb), height 177 cm (5 ft 10 in) In children, a healthy weight varies with age and sex. Obesity in children and adolescents is defined not as an absolute number, but in relation to a historical normal group, such that obesity is a BMI greater than the 95th percentile. The reference data on which these percentiles were based date from 1963 to 1994, and thus have not been affected by the recent increases in weight.

BMI Classification

- | | |
|--------------------------------|-------------------------------|
| (A) 18.5 Underweight | (B) 18.5–24.9 normal weight |
| (C) 25.0–29.9 Overweight | (D) 30.0–34.9 class I obesity |
| (E) 35.0–39.9 class II obesity | (F) 40.0 class III obesity |

Some modifications to the WHO definitions have been made by particular bodies. The surgical literature breaks down "class III" obesity into further categories whose exact values are still disputed. (1) Any BMI ≥ 35 or 40 is severe obesity (2) A BMI of ≥ 35 or 40–44.9 or 49.9 is morbid obesity (3) A BMI of ≥ 45 or 50 is super obesity

Some of the *many* increased *serious* health risks associated with obesity are: (A) Heart disease and heart attacks (B) Strokes and high blood pressure (C) Colon cancer (now associated with excess fat consumption in the diet) (D) Degenerative Joint Disease (arthritis), sometimes crippling and leading to a need for joint replacement (E) Diabetes Mellitus (high blood sugars), with a long list of related complications in the circulatory (heart), renal (kidney), neurological (nerves), retinal (visual) systems and with infectious diseases and problems with healing. (F) Depression (obese patients are typically inactive which can lead to increased incidences of chronic clinical depression that could be treated and greatly improved with exercise).

Obesity, however, has many causes. The reasons for the imbalance between calorie intake and consumption vary by individual. Your age, gender, genes, psychological makeup, and environmental factors all may contribute. Weight gain occurs when you eat more calories than your body uses up. If the food you eat provides more calories than your body needs, the excess is converted to fat. Initially, fat cells increase in size. When they can no longer expand, they increase in number. If you lose weight, the size of the fat cells decreases, but the number of cells does not.

Genes: Obesity tends to run in families. This is caused both by genes and by shared diet and lifestyle habits. Having obese relatives does not guarantee that you will be obese.

Emotions: Some people overeat because of depression, hopelessness, anger, boredom, and many other reasons that have nothing to do with hunger. This doesn't mean that overweight and obese people have more emotional problems than other people. It just means that their feelings influence their eating habits, causing them to overeat.

Environmental factors: The most important environmental factor is lifestyle. Your eating habits and activity level are partly learned from the people around you. Overeating and sedentary habits (inactivity) are the most important risk factors for obesity.

Sex: Men have more muscle than women, on average. Because muscle burns more calories than other types of tissue, men use more calories than women, even at rest. Thus, women are more likely than men to gain weight with the same calorie intake.

Age: People tend to lose muscle and gain fat as they age. Their metabolism also slows somewhat. Both of these lower their calorie requirements.

Pregnancy: Women tend to weigh an average of 4-6 pounds more after a pregnancy than they did before the pregnancy. This can compound with each pregnancy.

Certain medical conditions and medications can cause or promote obesity, although these are much less common causes of obesity than overeating and inactivity. Some examples of these are as follows: Cushing syndrome, Depression, Certain medications (examples are steroids, antidepressants, birth control pills), Prader-Willi syndrome and Polycystic ovarian syndrome. Obesity can be associated with other eating disorders, such as binge eating or bulimia. A sedentary lifestyle plays a significant role in obesity. In both children and adults, there is an association between television viewing time and the risk of obesity. A review found 63 of 73 studies (86%) showed an increased rate of childhood obesity with increased media exposure, with rates increasing proportionally to time spent watching television.

Obesity treatment strategies vary from person to person. Beginning treatment early is an essential part of success, and it is important to talk with your physician before beginning any weight-loss program. There are several methods for treating obesity, such as behavior modification, physical activity, non clinical weight management programs, medically managed weight-loss and surgical treatment.

Behavior plays a significant role in obesity. A few suggested behavior modifiers include: changing eating habits, increasing physical activity, becoming educated about the body and how to nourish it appropriately, engaging in a support group or extracurricular activity and setting realistic weight management goals.

Increasing or initiating a physical activity program is an important aspect in managing obesity. Today's society has developed a very sedentary lifestyle and routine physical activity can greatly impact your health. Set realistic goals and make sure to consult with your doctor before initiating any exercise program.

Surgical treatment of obesity is an option for those who are classified as morbidly obese. There are a few different types of bariatric surgery or weight-loss surgery treatment options, such as Roux-En-Y Gastric Bypass, Gastric Sleeve resection and Adjustable Gastric Banding.

The benefits of exercise are many. How hard you exercise plays an important role in weight loss and obesity. Simply put, high-intensity exercise burns more calories. To stimulate weight loss and change the shape of your body, you must exceed your comfort zone during exercise. To lose weight, you must create a negative caloric balance. That is, you must expend more calories than you ingest. Exercise boosts caloric expenditure in three important ways. The additional calories you burn during your workout create a deficit so long as your food consumption does not cancel out the burned calories. Exercise also builds lean muscle and bone, causing an elevated basal metabolism that burns more calories all day long. And exercise boosts energy, making you less tired and sluggish and more inclined to be active. In a 2007 study published in the *Journal of Applied Physiology*, researchers found that resistance training stimulates the production of the hormones epinephrine, norepinephrine and growth hormone, all of which promote fat metabolism. But to engender fat metabolism, exercise intensity must be sufficient to stimulate hormone production. For each exercise, select a weight with which you can barely do eight repetitions with good form and continue repetitions to volitional fatigue, or the point to which you cannot do one more repetition. You will burn more calories during your weight training session and see greater increases in lean mass, basal metabolism and daily caloric expenditure. Studies show that even the most inactive people can gain significant health benefits if they accumulate 30 minutes or more of physical activity per day. Research consistently shows that regular physical activity, combined with healthy eating habits, is the most efficient and healthful way to control obesity. Whether you are trying to lose weight or maintain it, you should understand the important role of physical activity and include it in your lifestyle.

In conclusion, it seems that we will have to reassess our entire lifestyle if we are to avoid the problems associated with obesity. Despite restrictive diets and tempting advertisements, most of us instinctively understand good common-sense eating. However, we have to combine this with more activity and with new insights into the importance of good health. There are several methods for treating obesity, such as behavior modification, physical activity, non clinical weight management programs, medically managed weight-loss and surgical treatment. Research consistently shows that regular physical activity, combined with healthy eating habits, is the most efficient and healthful way to control obesity.

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Study of Physiological Factors of Sprinters, Middle Distance Runners and Long Distance Runners.

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Abstract

The purpose of the study was to compare heart rate and vital capacity of Sprinters, Middle Distance Runners and Long Distance Runners. For this study researcher selected 30 Runners [10 Sprinters, 10 Middle Distance Runner and 10 Long Distance Runner] from Matoshree Vimalabai Deshmukh Mahavidyalaya, Amravati were selected as subjects for the purpose of the study. Subjects were selected with simple random sampling methods. The age of the subjects were ranged between 20-25 years. Subjects did not use any ergogenic aids or supplementations and also they were all free from any injuries during the collection of data. Physiological variables were as follows: Vital Capacity and Heart Rate. Vital Capacity was measured with Wet Spiro meter in (Lit). Heart Rate was measured Manually with the help of index and middle fingers. To compare the selected physiological variables of Sprinters 'f' test was applied by the researcher for this study, level of significance was 0.05 at 27df. Result shows that, on the basis of means of various physiological variables there was difference found between sprinters, middle distance runners and long distance runners. To see this differences was significant or not at 0.05 level of significance. Researcher further calculated 'f' test & above table shows that all the physiological variables found to be insignificant because the calculated f value of heart rate (6.09) and vital capacity (3.98) is lesser than the tabulated f value 3.354 at 0.05 level of significance. Long distance runners poses a healthy heart rate as compared to middle distance runners and sprinters. The reason behind the insignificant may be attributed that the longer period of long-distance training will strengthen the cardiovascular system, enhance your heart and increase your muscles' blood flow, which eases your body's ability to deliver oxygen to your muscles. As well as in the parameter of Vital Capacity the long distance runners were found to be better as compared to middle distance runners and sprinters.

Keyword: Athletes, Heart Rate and Vital Capacity.

Introduction

Sprint races are the short distances races in which athletes try to run at their maximum speed to the entire distance of the race. Sprint is the most oldest running rivalries and are said to have started from the 180 meters stadion race held during the ancient Olympic games. The stadion race was named upon the scene in which it occurred, called the stadion, is an old greek word, and today we called as stadium. The stadion race was said to be the most renowned occasions and the champ was considered as the victor of the whole diversions. At ancient time the dashes race were utilized to starts with a loud audio signal - a trumpet blow which has evolved into a gunshot today. There have been some noteworthy changes that have been made throughout the years as far as the essential guidelines of the game. Sprinters today begin in a crouch position while around then they used to begin upstanding, without cloths (Naked).

The sprint race has generally been considered as one of the glamour events in athletics. The sprint races are generally relies on the competitor's capacity that how he or she quicken to his or her most extreme speed in the fastest time as could be expected under the circumstances. A sprint race requiring explosive power than perseverance, these competitors bear excruciating measures of lactic acid that gather in their muscles as they quicken to their greatest speed in the fastest time to complete the distance. In 200m dash sprinters attempt to stay as near within line as could reasonably be expected yet without venturing the line as it would be justification for exclusion. This is notable as capacity to "keep running as a decent curve". Dissimilar to the 100m run requires unadulterated touchy power, in 200m competitor must keep up their speed and have "speed perseverance". The 400m dash race is a run around the standard track in the arena. Sprinters are lurched in their beginning positions so they run a similar separation. In 400m most extreme run speed is required, competitors likewise require considerable speed continuance and a high resistance for agony as they support high measures of lactic corrosive.

Middle-distance running events are track races longer than sprints, up to 3000m. The standard middle distances are the 800m, 1500m and mile run, although the 3000m may also be classified as a middle-distance event. Middle distance running involves popular race distances with performance dependent on a number of physiological factors. The physiological characteristics of successful runners are different from those of sprinters and long distance runners. Maximal oxygen uptake (VO₂max), running economy and the anaerobic threshold are variables that have been shown to limit

performance during long distance running, and rapid velocity and anaerobic variables have been shown to limit performance during sprinting. Success with middle distance running is dependent on an integrative contribution from aerobic and anaerobic variables which allows a runner to maintain a rapid velocity during a race.

A long distance race is any running event on the track that is longer than 3000m. This includes such events as the 5000m run, 20km & 50km Walking race, 100m for Women, 110m for Men and 400m Hurdle race, Relay race, Cross-country race and Marathon. Physiologically, it is largely aerobic in nature and requires stamina as well as mental strength. Aerobic energy production which is a complete pathway is the opposite, being able to provide prolonged energy without fatigue. The main requirement of aerobic energy production is the delivery and utilization of oxygen by a cell.

The physiological parameters appears to assume a vital job a very important role in the modern competitive sports in production of more excellent performance, since rivalries are sorted out more oftentimes than any time in recent memory the aggregate sets at a place at a specific time it might ascend at other place, in addition in view of physiological parameters and contrast in time the competitors a similar time at somewhere else. It is notable that the individual performance in any games fellows diurnal physiological parameters. Pattern method may be derived to condition the athletes to produce peak performance with change in diurnal physiological parameters. Lamentably little research were done is accessible on these parts of games and sports. Subsequently, physiological parameters, for example, vital capacity, pulse, hemoglobin, blood pressure, and so on get an exceptional thought and it is a vital essential for extraordinary execution in any activity.

It was speculated that there would be noteworthy distinction in physiological factors between sprinters, middle distance runners and long distance runners. Hence the researcher has taken the study “**Study of Physiological Factors of Sprinters, Middle Distance Runners and Long Distance Runners**”.

Methodology

For this study researcher selected 30 Runners [10 Sprinters, 10 Middle Distance Runner and 10 Long Distance Runner] from Matoshree Vimalabai Deshmukh Mahavidyalaya, Amravati were selected as subjects for the purpose of the study. Subjects were selected with simple random sampling methods. The age of the subjects were ranged between 20-25 years. Subjects did not use any ergogenic aids or supplementations and also they were all free from any injuries during the collection of data. Physiological variables were as follows: Hemoglobin, Vital Capacity and Pulse Rate.

Administration of the Test

Pulse Rate: Manually with the help of index and middle fingers pulse rate were taken in numbers of beat per minute.

Vital Capacity: Wet Spiro meter was used to measure the vital capacity in (Lit).

Statistical Analysis

To compare the selected physiological variables of Sprinters 'f' test was applied by the researcher for this study, level of significance was 0.05 at 27df. It is shown in following tables:

TABLE
Comparison of Physiological Variables of Sprinters, Middle Distance Runner and Long Distance Runners

Physiological Variables	SV	SS	df	MS	F
Pulse Rate	between	97.4	2	48.7	6.09*
	error	215.8	27	7.9925926	
Vital Capacity	between	0.80801	2	0.4040033	3.98*
	error	2.73669	27	0.1013589	

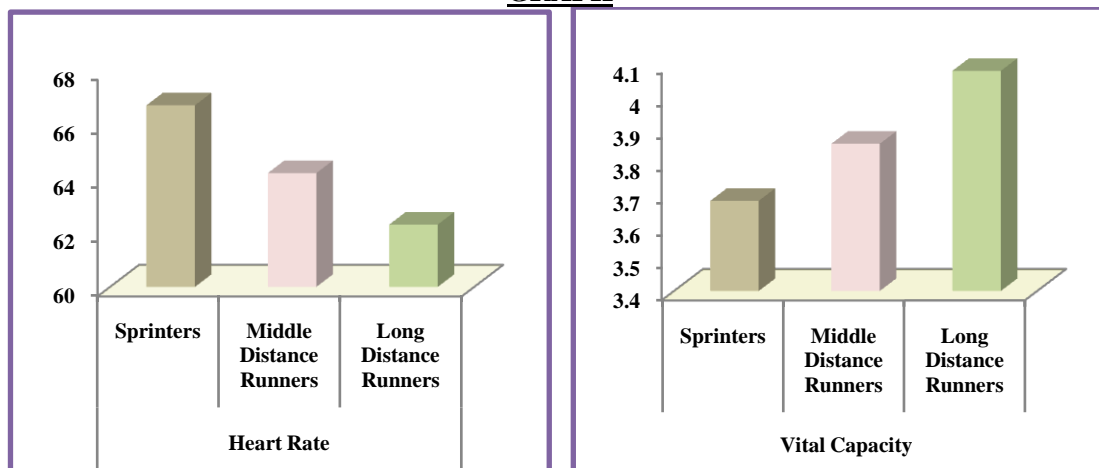
*0.05 level of Significance (27df) tabulated 'f' = 3.354

Result

On the basis of means of various physiological variables there was difference found between sprinters, middle distance runners and long distance runners. To see this differences was significant or

not at 0.05 level of significance. Researcher further calculated 'f' test & above table shows that all the physiological variables found to be insignificant because the calculated f value of heart rate (6.09) and vital capacity (3.98) is lesser than the tabulated f value 3.354 at 0.05 level of significance.

GRAPH



Conclusion

Concluding, we can say that all the physiological variables shows significant difference between Sprinters, Middle Distance Runners and Long Distance Runners. By seeing the mean of heart rate of athletes it has been observed that long distance runners shows less heart rate as compared to middle distance runners and sprinters. It means that long distance runners poses a healthy heart rate as compared to middle distance runners and sprinters. The reason behind the insignificant may be attributed that the longer period of long-distance training will strengthen the cardiovascular system, enhance your heart and increase your muscles' blood flow, which eases your body's ability to deliver oxygen to your muscles. As well as in the parameter of Vital Capacity the long distance runners were found to be better as compared to middle distance runners and sprinters.

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Effect Of Meditation On Self Control And Emotional Stability Of Interuniversity Players.

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Abstract

The purpose of the study was to find out the effect of meditation on self control and emotional stability of interuniversity players. For the present study 40 interuniversity players were selected from Rashtrasant Tukdoji Maharaja Nagpur University with the help of simple random sampling method were selected from Nagpur. The age of the athletes were ranged between 18 to 25 years. Data was collected by using Multi Assessment Personality Series (MAPS) and Differential Personality Inventory (DPI). Statistical Analysis was done on the basis of 't' test and the level of significant was kept at 0.05. Result that both the variables Self Control and Emotional Stability shows significant difference between pre and post test of Interuniversity Players. As the calculated 't' value 4.18 and 2.28 is greater than the tabulated 't' value 2.024. It may be attributed that meditation helps an individual to first become aware of what's going on in his mind and then to tame his mind and bring it under the control of his intention. Instead of the mind controlling a person, person tries to control his mind. This gives the ability to stay centered and focused regardless of the circumstances. Yoga and meditation help a person to cope with the challenges of life both mentally as well as physically while maintaining ones integrity and peace of mind. One can increase self-control and emotional stability, by enabling himself to understand his feelings and focus on a positive outlook, manage his energy and better understand his inner-self.

Keyword: Meditation, Self Control, Emotional Stability, interuniversity players, etc.

Introduction

Meditation comes from the Latin word 'meditatum', which means "to ponder" in hindi we can say 'dhyana karna'. The first time the term 'meditatio' which means 'step-by-step process' was used in the 12th century by a monk named, Guigo II. Truthfully, no one knows exactly origin of meditation except that it must have been a happy accident. When trying to go back in time to when meditation was first started, everyone will most likely to look the religious context in which meditation was practiced. Some evidence has shown that during prehistoric times, older civilizations used repetitive and rhythmic chants while offerings to their gods. It is also possible that one of our ancient relatives may discovered meditation after a long day of hunting and gathering, sat down and stared at the fire while entering a trance-like state. Some also say that it could have been the experience of spending time in dark caves that led to cavemen sleeping into an altered state of consciousness.

Meditation (Dhyana) means – "Full concentration of a yogic mind focused on one of those experiences" In simple terms "the spontaneous or unavoidable concentration of the mind on the object" is Meditation.

Everyone knows that mind is fickle, like a butterfly, which always flies from one place to another in a fraction of second and does not wait at one place for long time. One can imagine that the speed of our mind is far more than the butterfly or it may be greater than the speed of light.

Mind can recollect all the past experiences, keeps thinking about the future and experiences the present of a person with all its might and we do not have any control over our minds journey of an individual.

Dhyana (meditation) is the study of deep concentration, calmness and tranquility of the mind of an individual. It is the study of complete control over one's mind.

Self-control, is an aspect of inhibitory control, it is the ability to regulate one's emotions, thoughts, and behavior in the face of temptations and impulses. As an executive function, self-control is a cognitive process that is necessary for regulating one's behavior in order to achieve specific goals. Many studies have been studies, and shows that just three hours of meditation can increase self-control and focus of an individual.

Emotional stability refers to an individual's ability to remain stable and balanced. Emotional stability can be defined as having a congruent transition of emotional states and moderate emotional resilience to environmental influences (or cues). Someone who has the ability to cope with general changes in the environment, without responding with an intense emotional reaction, is said to be emotionally stable. The ability to stabilize emotions differs from the ability to regulate emotions. The signs of an emotional stability are calmness of mind and freedom from anxiety and depression. An

emotionally stable person has the attributes of emotional maturity, self-confidence, and stability in their plans and affections; these subjects look boldly ahead for facts and situations and do not give into occasional fluctuations in their mood. Meditation brings the body into a state of deep relaxation and provides the tools and resources needed to deal with stress. As the body and mind learn to relax through deep breathing exercises and techniques, the mind calms and the body experiences a state of emotional stability.

Purpose: Purpose of the study was To find out the effect of meditation on self control and emotional stability of interuniversity players.

Method and Materials

For the present study 40 interuniversity players were selected from Rashtrasant Tukdoji Maharaja Nagpur University with the help of simple random sampling method were selected from Nagpur. The age of the athletes were ranged between 18 to 25 years. Subjects did not use any ergogenic aids or supplementations and also they were all free from any injuries during the collection of data.

Administration of the test

The following tools were used to collect the data on:-

Self Control: Self Control was measured by Multi Assessment Personality Series (MAPS). This scale was constructed developed by Sanjay Vohra. It consists 147 complete sentences and each item is provided three alternatives the subjects had to select one of the three alternative statements.

Emotional Stability: Emotional Stability was measured by Differential Personality Inventory (DPI). This test is developed and standardized by L. N. K Shinha and Arun Kumar Singh. The test consisted of 165 items. The subjects were required to respond to each item in terms of 'True' or 'False'.

Statistical Analysis:

Statistical Analysis was done on the basis of 't' test and the level of significant was kept at 0.05. Pre and Post Treatments of Interuniversity players on Self Control and Emotional Stability were compared.

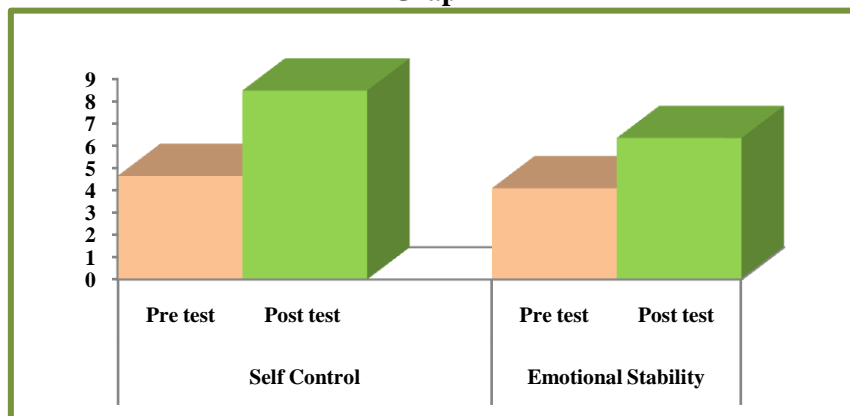
Table : 1
Comparison of pre & post test of Self Control and Emotional Stability of Interuniversity Players

Variables	Test	Mean	S.D	S.E	M.D	D.F	Obt. 't'	Tab 't'
Self Control	Pre test	4.65	2.56	0.57	3.84	38	4.18*	2.024
	Post test	8.49	3.21					
Emotional Stability	Pre test	4.1	2.23	0.98	2.26		2.28*	
	Post test	6.36	3.82					

*0.05 level of Significance (38df) tabulated 't' = 2.024

The above table shows that on the basis of mean difference there was much difference between the means of Self Control and Emotional Stability of Interuniversity Players Rashtrasant Tukdoji Maharaja Nagpur University, Nagpur. To see this differences is significant or not at 0.05 level of significance. Researcher further calculated 't' test & above table shows that both the variables Self Control and Emotional Stability shows significant difference between pre and post test of Interuniversity Players. As the calculated 't' value 4.18 and 2.28 is greater than the tabulated 't' value 2.024.

Graph



Conclusion

Concluding the above study we can say that post treatment of interuniversity players has significantly high Self Control and Emotional Stability than the pre treatment of interuniversity players, it may be attributed that meditation is an ancient practice that is an integral part of Yoga. Meditation helps an individual to first become aware of what's going on in his mind and then to tame his mind and bring it under the control of his intention. Instead of the mind controlling a person, person tries to control his mind. This gives the ability to stay centered and focused regardless of the circumstances.

Yoga and meditation help a person to cope with the challenges of life both mentally as well as physically while maintaining ones integrity and peace of mind. One can increase self-control and emotional stability, by enabling himself to understand his feelings and focus on a positive outlook, manage his energy and better understand his inner-self.

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Effect Of Functional Strength Training And Flow Yoga On muscular Fitness Variables among Men Kho-Kho Players

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Abstract

Background: Functional Strength training and Yoga are the backbones of professional athletes and teams these days. Further and more people are discovering the countless ways that functional strength training and yoga can be used to improve athletic performance. This study aims to find out the effect of functional strength training and Flow yoga on selected muscular fitness variables among men Kho-Kho players. **Methods:** Data were analyzed from 45 men Kho-Kho players, and were stratified into a functional strength training group (FSTG, $n = 15$; 21.00 ± 1.73 years), Flow yoga group (FYG, $n=15$; 20.67 ± 1.39 years) and a control group (CG, $n = 15$; 20.53 ± 1.40 years). The FSTG and FYG received periodized functional training and Flow yoga for 12 weeks. The leg muscle strength and leg muscle explosive power of all the groups were evaluated before and after the training, and the variables were measured by standardized test items as Leg dynamometer test and vertical jump test. Analysis of covariance (ANCOVA) was performed to find out the significant mean differences. In all the cases, the level of significance was set at $p < 0.05$. **Results:** The results of the study have shown that there was a significant increase in the leg muscle strength and leg muscle explosive power on the FSTG and FYG as compared to the CG. The statistical analysis showed that the FSTG experienced more significant improvement in leg muscle strength and leg muscle explosive power than FYG and CG on the Kho-Kho players. **Conclusion:** Functional strength training and Flow yoga had a beneficial impact on leg muscle strength and leg muscle explosive power. Collectively, these results suggest that both programs are useful for increasing leg muscle strength and leg muscle explosive power on the Kho-Kho players.

Keywords: Functional training, Flow yoga, Leg Muscle Strength, Leg Muscle Explosive Power

1. Introduction

Kho-Kho is the most favorite sport in the world. More or less 20 thousand players of all ages and gender, both on amateur and professional level play Kho-Kho in clubs across the globe. An exceptional level of Kho-Kho performance needs the successful skillfulness in abilities like the repeated explosive burst, strength, power, kicking, tackling, and their derivatives such as jumping, turning, sprinting, and changing direction speed (Ramirez *et al.*, 2015). As yoga's popularity has increased, we see more and more athletic programs using yoga-inspired movements. Kho-Kho players can benefit from yoga because it is a powerful training tool for preparing the muscles for the strenuous exercise of a Kho-Kho game, which helps stretching, strength building, breathing and balance, prevent muscle strains and joint stress.

1.1 Functional Strength Training

According to Brill (2008), Functional training is emphasizing multi-planar, and multi-joint activities, combining upper body and lower body movements and utilizing more of the human body muscles in each action. The American Council on Exercise (ACE) defines functional strength training as "performing work against resistance in such a manner that the improvements in strength directly enhance the performance of movements so that an individual's activities of everyday living are easier to perform." Functional fitness exercises train your muscles to work together and prepare them for daily tasks by simulating everyday movements you might do at home, at work or in sports.

1.2 Flow Yoga

Flow is a collective term for all type of yoga in which experts follow a sequence of asana connected to one another by flow and proper breathing (Fraser, 2005). Flow also termed flow because of the harmonious way that the poses run together, is one of the most famous contemporary styles of yoga. It's a broad classification that incorporates many different types of yoga, including Ashtanga and power yoga. In Flow yoga, each movement is harmonized to a breath. The breath is given supremacy, acting as an anchor as you move from one pose to the next. A cat-cow stretch is an instance of a simple Flow. The spine is bowed on an inhale and rounded on an exhale.

2. Materials and Methods

2.1 Participants

Twenty-five young adults, aged 18-25 years, were recruited from the affiliated colleges under the University of Amravati through the verbal message to participate in the study during the summer vacation of 2018. All study participants were familiar with strength training and yoga.

2.2 Experimental groups, Variables & Tests

Table I: Training Groups	Name Group
Group I - Experimental	Functional Strength Training Group (FSTG)
Group II - Experimental	Flow Yoga Group (FYG)
Group III - Control	Controlled (No Training) (CG)

Table II: Variables

Type	Variables
Independent	Functional Strength Training
	Flow Yoga
Dependent	Leg Muscle Strength
	Leg Muscle Explosive power

Table III: Selection of Tests

Variables	Test	Measurement
Leg Muscle Strength	Leg dynamometer test	Kilograms
Leg Muscle Explosive power	Vertical jump test.	Centimeters

* Significant 0.05 level of significance

(The table values required for significance at 0.05 level with df 2 and 42, 2 and 41 were 3.22 and 3.23 respectively).

Table-IV showed that the pre-test means values of leg muscle strength for FSTG, FYG and CG were 84.93 ± 7.95 , 85.46 ± 7.69 and 83.60 ± 6.37 respectively. The obtained 'F' ratio value of 0.25 for pre-test scores of FSTG, FYG, and CG on leg muscle strength was less than the required table value of 3.22 for significance with df 2 and 42 at 0.05 level of significance.

The post-test means values for leg muscle strength for FSTG, FYG and CG were 91.33 ± 7.94 , 89.86 ± 8.01 and 82.93 ± 6.86 respectively. The obtained „F“ ratio value of 5.19 for post-test scores of FSTG, FYG, and CG was higher than the required table value of 3.22 for significance with df 2 and 42 at 0.05 level significance.

The adjusted post-test means values of leg muscle strength for FSTG, FYG and CG were 91.06, 89.05 and 84.01 and respectively. The obtained „F“ ratio value of 98.01 for adjusted post-test scores of FSTG, FYG and CG were more significant than the required table value of 3.23 for significance with df 2 and 41 at 0.05 level of significance. The results of this study have shown that there was a significant difference between FSTG, FYG, and CG on leg muscle strength.

The mean values of FSTG, FYG, and CG on leg muscle strength were graphically represented in Figure-I.

Figure – I
Bar Diagram Showing the Mean Values of FSTG, FYG and CG on Leg Muscle Strength



TABLE-V
Analysis of Covariance on Leg Muscle Explosive Power of FSTG, FYG and CG

	FSTG	FYG	CG	Source of Variance	Sum of Square	df	Mean Square	„F“ ratio
Pre-test Mean	41.60	41.00	40.07	Between	17.911	2	8.956	0.45
S.D.	3.85	3.94	5.40	Within	834.53	42	19.870	
Post-test Mean	47.00	44.67	39.60	Between	429.37	2	214.68	10.25*
S.D.	3.85	4.33	5.39	Within	878.93	42	20.927	
Adjusted Post-test Mean	46.30	44.55	40.40	Between	269.34	2	134.67	74.22
				Within	74.392	41	1.814	

* **Significant 0.05 level of significance**

Table-V showed that the pre-test means values of leg muscle explosive power for FSTG, FYG and CG were 41.60 ± 3.85 , 41.00 ± 3.94 and 40.07 ± 5.40 respectively. The obtained „F“ ratio value of 0.45 for pre-test scores of FSTG, FYG, and CG on leg muscle explosive power was less than the required table value of 3.22 for significance with df 2 and 42 at 0.05 level of significance.

The post-test means values for leg muscle explosive power for FSTG, FYG and CG were 47.00 ± 3.85 , 44.67 ± 4.33 and 39.60 ± 5.39 respectively. The obtained „F“ ratio value of 10.25 for post-test scores of FSTG, FYG, and CG was higher than the required table value of 3.22 for significance with df 2 and 42 at 0.05 level significance.

The adjusted post-test means values of leg muscle explosive power for FSTG, FYG and CG were 46.30, 44.55 and 40.40 and respectively. The obtained „F“ ratio value of 74.22 for adjusted post-test scores of FSTG, FYG and CG were more significant than the required table value of 3.23 for significance with df 2 and 41 at 0.05 level of significance. The results of this study have shown that there was a significant difference between FSTG, FYG, and CG on leg muscle explosive power. The mean values of FSTG, FYG, and CG on leg muscle explosive power were graphically represented in Figure-I.

4. Discussion

The present study examined the effect of functional strength training and Kho-Kho yoga on muscular fitness variables among men Kho-Kho players. The results showed a statistically significant increase ($p < 0.05$) in the value of the leg muscle strength and leg muscle explosive power in the FSTG and FYG as compared to the CG. Rosch et al., (2000) also found that FST improved flexibility, power, speed, endurance and football skills among players. Weiss et al. (2010) also identified similar results in 7-weeks of functional training on muscular fitness outcomes in young adults. Alauddin and Samiran (2012) observed that FST enhanced physical fitness components on college male students. Mario et al., (2011) determined that FST significantly improved the explosive strength and agility variables. Myung et al., (2017) found that Lower body muscle strength was increased considerably in FYG after 8-week Vinyasa yoga training. Henry et al., (2014) discovered that 9-week Kho-Kho yoga improved functional fitness among in young adults. These findings suggest that FSTG and FYG over 12 weeks was able to promote improvements in muscular fitness in young adult Kho-Kho players.

5. Conclusions

The results of the study indicated that twelve weeks of functional strength training and Kho-Kho yoga led to significant improvements in leg muscle strength and leg muscle explosive power among Kho-Kho players. FSTG evidenced more effective in leg muscle strength and leg muscle explosive power when compared to FYG and CG. And the training method appears to endorse fitness. Based on the results of the study the investigator recommends that functional strength training and Kho-Kho yoga can be practiced to enhance the muscular fitness among the athletes and players.

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A Comparative Study of Tension among various positions of Kabaddi Players

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Abstract

The purpose of the study to compare the level of Tension among various positions of Kabaddi Players. To achieve the purpose of the present study researcher has selected 30 players of different playing position in kabaddi: 10 Raider, 10 Third and 10 Corner from Sant Gadge Baba Amravati University, Amravati. Subjects were selected by purposive sampling method. The age of the player were ranged between 20 to 25 Years. Multidimensional Assessment of Personality Series (MAPS) questionnaire were used to collect the data. From that questionnaire only scores of Tension were taken and were analyzed by one way ANOVA. The level of significance was fixed at 0.05. Result shows that there is significant difference between different playing position of kabaddi players because calculated value F is 6.973 which is greater than tab $F_{0.05(2,27)} = 3.354$. Since the F ratio is found to be significant, the Least Significant Difference (LSD) Post hoc test is applied to assess the paired mean difference among the different playing position of kabaddi players in reference to tension, that the mean difference value 2.5 is greater than the critical difference value 2.259. Hence, the mean of level of tension of kabaddi player playing in the place of third is significantly higher than kabaddi player playing in the place of corner. The result also shows that there are no significant differences among the mean of tension amongst different playing position.

Keyword: Tension, Kabaddi, Raider, Center, Third, etc.

Introduction

Sports and physical activity has been considered as an integral part of human's life. It is accepted by universal that games and sports fulfill the requirements of human activities. Sports is termed as psycho-social activity now a days. It has both psychological dimension as well as social dimensions besides physical, physiological and technical aspects. Human interest in sports is found among all the society of the world. Almost every nations share a common interest in sport competition, especially during Olympic Games, where athletes from all nations focus their attention to win medal in competition. In the modern era of competition, psychological preparation of individual athlete or team is as important as teaching the different skills of a game on the scientific lines. The individual athlete and team are motivated not only to play the game but also to win the games. But the quality of participation of the athletes and sportsmen is most probably determined by their psychological factors. It is not only the proficiency in the skill which brings victory but main dimension is the spirit of the players with which they play and perform their best in the competition.

The involvement of psychological principles for improvement of performance in sports has received greater attention in these days. There are certain accepted psychological principles which must have to be applied, so that the athletes and players are able to show their best in performances in competition. Coaches, physical educationists and sports scientists have always eager to know more about those psychological principles, which are helpful in improving the performance of the players. It is important to know about the role of anxiety, aggression, tension, fear, emotional phenomena like competitive anxiety and some personality traits like extroversion and neuroticism of the players during training as well as in competitions.

The athlete who are alert and relaxed, they take better, quicker decision during a match. An over-anxious athlete may take incorrect decision. Athletes can be more motivated when they realize that they can control their inner ability like anxiety, aggression, tension, fear, etc and are then free to play at their top level.

Tension is that state of nervousness, which results from the internal forces acting in opposition to each other such in emotional reactions like anger or fear. In one word, tension may refer as the residual effect of mental or emotional strain reflected in a athlete appearance or behaviour.

A high level of basic tension will easily cause an athlete to choke under the perceived impact of impending competition or during a critical part of the competition. As we know Inverted-U model is often used to describe the influence of activation, arousal and tension on performance. The model says that an athletic performance will lose in quality if the tension level is low as well as if the tension level is very high the performance of athlete will also decrease, however the optimal level of

activation arousal, tension and motivation is the one at which an athlete performs at his best or close to his maximum. This optimal level varies from athlete to athlete and in the same athlete from time to time depending upon the sport, how well learned it is (automatization) and on the interpretation of bodily arousal (fight/fight). However, this ideal level is difficult to measure in an objective way expect the athlete or the coach identifying and analyzing feelings, moods and mind states.

Kabaddi players also requires tremendous physical stamina, agility, individual proficiency, neuromuscular coordination, lung capacity, quick reflexes, intelligence and presence of mind on the part of both attackers and defenders. Hence researcher keen to know which position in kabaddi, players are very tensed or under pressure which directly affect player to take correct and incorrect decision. Hence researcher has taken the study “A Comparative Study of Tension among various positions of Kabaddi Players”

Methodology

To achieve the purpose of the present study researcher has selected 30 players of different playing position in kabaddi: 10 Raider, 10 Third and 10 Corner from Sant Gadge Baba Amravati University, Amravati. Subjects were selected by purposive sampling method. The age of the player were ranged between 20 to 25 Years. Multidimensional Assessment of Personality Series (MAPS) questionnaire were distributed to players researcher explained each and every question in marathi so that player can give correct and relevant answers. From that questionnaire only scores of Tension were taken and were analyzed by one way ANOVA. The level of significance was fixed at 0.05. When the obtained ‘F’ value was significant Post-hoc test was applied to find out the paired mean difference.

Statistical Analysis

Mean of third playing position is 8.2, mean of corner playing position is 5.7 and mean of raider playing position is 7.2 on the basis of mean there is a difference between different playing position in reference to tension level to see these difference is significant or not researcher has calculated ANOVA.

Table – 1

Comparison of Level of Tension amongst different playing position in kabaddi

SV	SS	df	MS	f
between	31.66	2	15.833	6.973*
error	61.3	27	2.27	

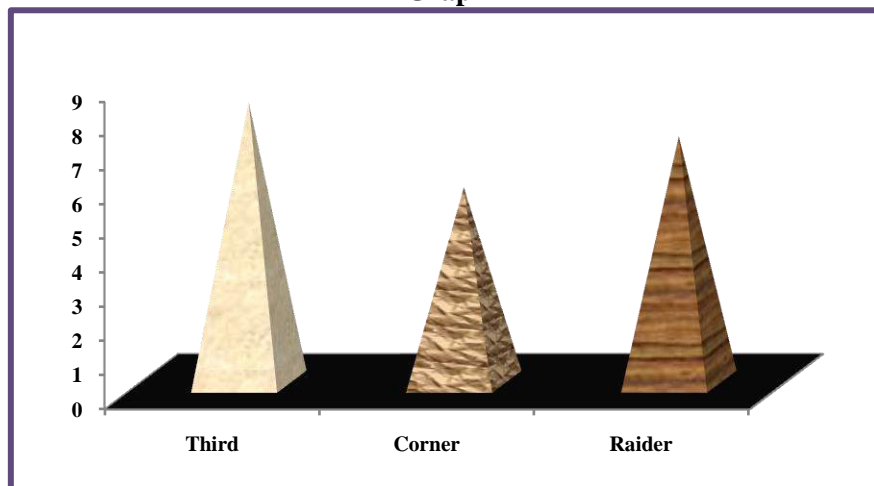
*Significance at 0.05 (27df) tabulated f = 3.354

Table – 2

Comparison of Mean of Level of Tension amongst different playing position in kabaddi

Third	Corner	Raider	MD	CD
8.2	5.7		2.5*	2.25991
8.2		7.2	1	
	5.7	7.2	1.5	

Graph



Mean comparison of different playing Position in Kabaddi

Result

Above table-1 shows that there is significant difference between different playing position of kabaddi players because calculated value F is 6.973 which is greater than tab $F_{0.05(2,27)} = 3.354$. Since the F ratio is found to be significant, the Least Significant Difference (LSD) Post hoc test is applied to assess the paired mean difference among the different playing position of kabaddi players in reference to tension, that the mean difference value 2.5 is greater than the critical difference value 2.259. Hence, the mean of level of tension of kabaddi player playing in the place of third is significantly higher than kabaddi player playing in the place of corner. The table also shows that there are no significant differences among the mean of tension amongst different playing position.

Conclusion

It may be concluded that kabaddi player playing in the place of third is highly tensed than kabaddi player playing in the place of corner. As it is found to be significant the reason may be attributed that the “cover” means defense is mainly depends on the third. universally accepted that as the third of the team is out the courage of the defense is decreases by fifty percent. Hence, the player playing in the position of third is highly tensed in the entire match in comparison with different playing position.

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Role of Yoga in Day to Day life

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Abstract

Yoga is the science of modern living, of right living, and should be incorporated into our daily lives. It is not just a two-hour hobby class once a week. Yoga has technical systems to help calm the mind, maintain resilience, harness physical and mental energies and to develop an integrated personality. It's a way of balancing the emotions and establishing the harmony between the mind and body. A person can choose one or a combination of two or more from the many paths of yoga - hatha, bhakti, raja, jnana and karma yoga – according to their lifestyle. One can practice pranayama, asanas, relaxation, meditative and pratyahara techniques, as well as follow personal and social disciplines where possible. It is up to the individual to find which path best suits his/her needs, lifestyle and personality. Yoga can be practiced while leading a normal lifestyle, but with different aspirations, mentality and attitude towards oneself and the interactions in life. The art of practicing yoga helps in controlling an individual's mind, body and soul. It brings together physical and mental disciplines to achieve a peaceful body and mind, helps manage stress and anxiety and keeps you relaxed. It also helps in increasing flexibility, muscle strength and body tone. It improves respiration, energy and vitality. Practicing yoga might seem like just stretching, but it can do much more for your body from the way you feel, look and move.

Keywords: Yoga, Modern Life Style. Nation

Introduction

Yoga is the science of modern living, of right living, and should be incorporated into our daily lives. It is not just a two-hour hobby class once a week. Yoga has technical systems to help calm the mind, maintain resilience, harness physical and mental energies and to develop an integrated personality. It's a way of balancing the emotions and establishing the harmony between the mind and body. Modern lifestyle has lost the harmony in mind-body relationship which has caused several stress-based diseases such as hypertension, coronary heart diseases and cancer. An attempt to prevent and treat these diseases triggered a search for better lifestyles and better strategies that converged on the rediscovery of ancient disciplines such as Yoga, combining lifestyles with potent infallible prescriptions for lasting mental peace as confirmed by clinical studies.

A person can choose one or a combination of two or more from the many paths of yoga - hatha, bhakti, raja, jnana and karma yoga – according to their lifestyle. One can practice pranayama, asanas, relaxation, meditative and pratyahara techniques, as well as follow personal and social disciplines where possible. It is up to the individual to find which path best suits his/her needs, lifestyle and personality. Yoga can be practiced while leading a normal lifestyle, but with different aspirations, mentality and attitude towards oneself and the interactions in life.

Role of Yoga in modern lifestyle includes certain principles and values:

The 8 limbs of Yoga help regulate our lifestyle and keep away from lifestyle related disorders.

- **Yamas:** 5 rules of social conduct
- **Ahimsa** - non-violence
- **Satya** - truthfulness
- **Asteya** - non-stealing
- **Brahmacharya** - faithfulness
- **Aparigraha** - Non-greed

The practice of Yoga does not only deal with developing the body but also covers all the aspects of a person's life as stated in the eight limbs of Yoga. It is about the physical, mental and spiritual well-being of an individual as well as his environment and relationship with other creatures. Real practice of these eight principles leads to deeper self-knowledge, love and respect towards other people and creatures, cleaner environment, healthy diet, and union with the Divine.

Yoga is a way of living and its aim is 'a healthy mind in a healthy body'

A human being is a physical, mental and spiritual being. Yoga helps promote a balanced development of all the three. Other forms of physical exercises, like aerobics, assure only physical well-being. They have little to do with the development of the spiritual or astral body.

Yogic exercises recharge the body with cosmic energy

- Attainment of perfect equilibrium and harmony
- Promotes self- healing
- Removes negative blocks from the mind and toxins from the body
- Increases self-awareness
- Helps in attention, focus and concentration; especially important for children
- Reduces stress and tension in the physical body by activating the parasympathetic nervous system

The art of practicing yoga helps in controlling an individual's mind, body and soul. It brings together physical and mental disciplines to achieve a peaceful body and mind, helps manage stress and anxiety and keeps you relaxed. It also helps in increasing flexibility, muscle strength and body tone. It improves respiration, energy and vitality. Practicing yoga might seem like just stretching, but it can do much more for your body from the way you feel, look and move.

Conclusion

Modern lifestyle has lost the harmony in mind-body relationship which has caused several stress-based diseases such as hypertension, coronary heart diseases and cancer. An attempt to prevent and treat these diseases triggered a search for better lifestyles and better strategies that converged on the rediscovery of ancient disciplines such as Yoga, combining lifestyles with potent infallible prescriptions for lasting mental peace as confirmed by clinical studies. Yoga is the science of modern living, of right living, and should be incorporated into our daily lives. It is not just a two-hour hobby class once a week. Yoga has technical systems to help calm the mind, maintain resilience, harness physical and mental energies and to develop an integrated personality. It's a way of balancing the emotions and establishing the harmony between the mind and body. A person can choose one or a combination of two or more from the many paths of yoga - hatha, bhakti, raja, jnana and karma yoga – according to their lifestyle. One can practice pranayama, asanas, relaxation, meditative and pratyahara techniques, as well as follow personal and social disciplines where possible. It is up to the individual to find which path best suits his/her needs, lifestyle and personality. Yoga can be practiced while leading a normal lifestyle, but with different aspirations, mentality and attitude towards oneself and the interactions in life.

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Effect of Soccer Fun Games on Speed and Agility of School Boy's

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Abstract

The purpose of the study was to see the effect of Soccer Fun Games on Agility and Speed of School descriptive and comparative. Descriptive was done on the basis of mean and standard deviation and comparative was done on the basis of One Way Analysis Of Variance. Significant level was Boy's. For the purpose of the study 40 boys were selected by random sampling method from Gems Akademia International School, Kolkata, West Bengal, India. The age of subjects will be ranged between 10 and 14 years. The experimental design to be used in this study is pretest-posttest design. The subjects were divided by random sampling method into two group i.e. one experimental group (20) and a control group (20). The experimental Group (Ex.G) underwent the coaching programme while the other served as control (Co.G). The coaching intervention will be of six weeks, three days in a week with duration of 60 minutes per day. Agility was measured with the help of Shuttle Run and Speed was measured with the help of 50 Yard Dash. Statistical Analysis was done on the basis of both kept at 0.05 level. shows that on the basis of mean there was difference between the means of pre and post test of control and experimental group of school boys in reference to Agility and Speed. To see this difference is significant or not at 0.05 level of significance. Researcher further calculated 't' test & above table shows that there is significant difference between pre and post test of experimental group of athlete in both the parameters as the calculated 't' value 3.82 and 3.26 was greater than tabulated 't' value 2.101. But there is insignificant found between pre and post test of control group of athlete in both the parameters, as the calculated 't' value 1.87 & 0.21 is lesser than the tabulated 't' value 2.101.

Keyword: Fun Game, Agility, Speed, School Boy's, etc.

Introduction

It is unknown who is the innovators, who first started to play games. Perhaps the earliest games were created in ancient times, when gaming apparatus would have been made of wood or bone. It is impossible to say which is the oldest game in the world, but discoveries made at archaeological sites in Turkey, Syria, Iraq and many places which have unearthed an ancient game that is still a inscrutability for archaeologists.

Ancient football, or medieval football, dates back to the third century. That was extremely competitive and dangerous sport was regularly played during Carnival between neighboring towns, villages or guilds. As in modern football, each team passed a leather ball in an effort to reach the opposing team's goal. There was no limit to the number of players allowed on the field and no rules against excessive force. Some variants only allowed passing with the hands while others allowed for the use of a player's entire body.

Soccer is the most popular game in the world played on every continent and in every season of the year. It keeps children active, requires little in terms of equipment, leads to less injuries amongst players than in other sports, it's easy to study, and most importantly, it's fun!

The quick counter attack requires players in a team to react with agility and speed, and often the most important player will be your striker, who receives the ball under pressure from a defender. Player must control it and either shoot at goal himself or pass into the path of a supporting attacker.

Speed is the capability to move your body quickly. Speed is a very important factor in many team sports as it aids the players in beating their adversaries. For example, netballers require speed so that they can get into spaces more swiftly than their opponents. Even for rugby players speed is a necessity to be able to defeat their opponents to the try-line. Speed is often said to be something that one is born with, although some advancements can be made by taking part in strength training and sprint training.

Agility is the ability to change the direction rapidly with control. Some viewed that, agility is dependent on strength, reaction time, speed of movement and muscular co-ordination. Agility is the ability to quickly changing body position with speed and consistency. Quick start and stop and quick change in direction are fundamental to good performance in games like football. Running is not only an athletic event itself, but it is an important factor in almost all court and field

games. It can result the difference in whether a performer is able to gain an advantage over his/her opponent. It is determined by the length and frequency (speed) of strides and mostly dependent upon speed of muscular and neuromuscular co-ordination.

Speed and Agility is vital because opposition players will be running back while often relying on a lone defender to hold up play. Using various fun games, one can replicate counter attacks in training, perfecting the process using recognized support and teamwork, rather than just raw pace.

Method and Materials

For the purpose of the study 40 boys were selected by random sampling method from Gems Akademia International School, Kolkata, West Bengal, India. The age of subjects will be ranged between 10 and 14 years.

The experimental design to be used in this study is pretest-posttest design. The subjects were divided by random sampling method into two group i.e. one experimental group (20) and a control group (20). The experimental Group (Ex.G) underwent the coaching programme while the other served as control (Co.G). The coaching intervention will be of six weeks, three days in a week with duration of 60 minutes per day.

50 Yard Dash (Speed): The purpose of the test is to measure speed. The players were asked to take position behind the starting line. The command ‘Ready’ and ‘Go’ were given by the starter. The command ‘go’ was accompanied by the down ward sweep of the starter’s arms to give the timer, a visual signal, on hearing the starter’s command ‘go’ the subjects run from the starting position and crossed the finishing line. The score is measured to the nearest tenth of the second.

4 X 10 meter Shuttle run (Agility): The purpose of the test is to measure agility. Two lines were marked 10 meters apart using marking tape or cones. The two blocks are placed on the line opposite the line they are going to start at. On the signal “ready”, the subject places their front foot behind the starting line. On the signal, “go” the subject sprints to the opposite line, picks up a block of wood, runs back and places it on or beyond the starting line. Then turning without a rest, they run back to retrieve the second block and carry it back across the finish line. The score is measured to the nearest tenth of the second.

Six Weeks Training Schedule

Week	M	W	F
1&4	5 m warm-up, 2 sets of 5x1:30 hard with ball, (30 s easy recovery), (2 m rest btw sets), Fun Game (15 m), 5 m cool down	5 m warm-up, 5 m stretching, Fun Game (15 m), 5 m cool down	5 m warm-up, Ball drill: 1 m hard, 1 m easy, 2 m hard, 1 m easy; 3 m hard; 1 m easy, Fun Game (15 m), 5 min cool down
2&5	5 m warm-up, 3 sets of 5x1:30 hard with ball, (30 s easy recovery), (2 m rest btw sets), Fun Game (20 m), 5 m cool down	5 m warm-up, 10 m stretching, Fun Game (20 m), 5 m cool down	5 m warm-up, Ball drill: 1 m hard, 1 m easy, 2 m hard, 1 m easy; 3 m hard; 1 m easy (2 sets), Fun Game (20 m), 5 min cool down
3&6	5 m warm-up, 3 sets of 6x1:30, hard with ball, (30 s easy recovery), (2 m rest btw sets), Fun Game (25 m), 5 m cool down	5 m warm-up, 15 m stretching, Fun Game (25 m), 5 m cool down	5 m warm-up, Ball drill: 1 m hard, 1 m easy, 2 m hard, 1 m easy; 3 m hard; 1 m easy (3 sets), Fun Game (25 m), 5 min cool down

Statistical Analysis

Statistical Analysis was done on the basis of both descriptive and comparative. Descriptive was done on the basis of mean and standard deviation and comparative was done on the basis of One Way Analysis Of Variance. Significant level was kept at 0.05 level.

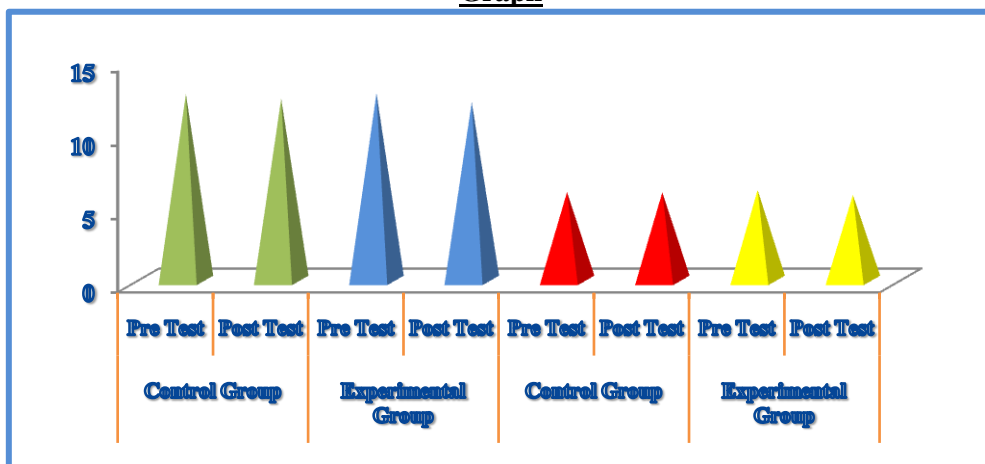
Table
Comparison of Pre & Post Test of Control & Experimental Group of Agility and Speed.

Variables	Group	Test	Mean	S.D	S.E	M.D	D.F.	Obt "t"	Tab "t"
Agility	Controlled	Pre test	12.69	0.44	0.176	0.33	38	1.87	2.021
		Post test	12.35	0.65					
	Experimental	Pre test	12.75	0.49	0.162	0.621		3.82*	
		Post test	12.13	0.53					
Speed	Controlled	Pre test	6.02	0.31	0.096	0.021	38	0.21	2.101
		Post test	5.99	0.28					
	Experimental	Pre test	6.15	0.26	0.103	0.33		3.26*	
		Post test	5.81	0.37					

*0.05 level of Significance (38df) tabulated 't' = 2.101

The above table shows that on the basis of mean there was difference between the means of pre and post test of control and experimental group of school boys in reference to Agility and Speed. To see this difference is significant or not at 0.05 level of significance. Researcher further calculated 't' test & above table shows that there is significant difference between pre and post test of experimental group of athlete in both the parameters as the calculated 't' value 3.82 and 3.26 was greater than tabulated 't' value 2.101. But there is insignificant found between pre and post test of control group of athlete in both the parameters, as the calculated 't' value 1.87 & 0.21 is lesser than the tabulated 't' value 2.101.

Graph



Conclusion

Concluding the above study we observed that there was difference found between the means of pre and post test of control and experimental group of school boys in reference to Agility and Speed. Researcher further calculated 't' test and it was found that there was significant difference between pre and post test of experimental group of school boys in both the parameters Agility as well Speed. Whereas control group shows insignificant in both the parameters. We can say that knowingly or unknowingly Fun Game develop the ability of Agility and Speed.

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Exercise And Fitness Prescription

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Introduction:

For years everyone has known that regular exercise along with good nutrition is good for their health. The trick is how to build sound exercise habits and a balanced diet into your busy schedule. The stress of modern times mandates that you develop and maintain a fit, trim and fully functioning body. Being active and physically fit heightens your self-expression and self-esteem. Research polls indicate that people today are becoming more health centered. As a result, people are becoming more interested in making fitness exercise an integral part of their life-style. This article will introduce you to the why of fitness. You will learn all about exercise and its benefits and will also learn how to structure a personal exercise program that is safe, reasonable, effective, and, most important, rewarding and fun.

Exercise:

Activity requiring physical effort carried out to sustain or improve health and fitness. The activity of exerting your muscles in various ways to keep fit. The physical exertion required by his work kept him fit.

Fitness:

The condition of being physically fit and healthy: "disease and lack of fitness are closely related. The state or condition of being fit, suitability or appropriateness. Good health or physical condition, especially as the result of exercise". Exercise and Fitness Prescription: Exercise prescription commonly refers to the specific plan of fitness-related activities that are designed for a specified purpose, which is often developed by a fitness or rehabilitation specialist for the client or patient. Due to the

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specific and unique needs and interests of the client/patient, the goal of exercise prescription should be successful integration of exercise principles and behavioral techniques that motivates the participant to be compliant, thus achieving their goals.

Components of exercise prescription:

An exercise prescription generally includes the following specific recommendations:

- I. Type of exercise or activity (e.g.- walking, swimming, cycling)
 - II. Specific workloads (e.g.- watts, walking speed)
 - III. Duration and frequency of the activity or exercise session
 - IV. Intensity guidelines - Target heart rate (THR) range and estimated rate of perceived exertion (RPE)
 - V. Precautions regarding certain orthopedic (or other) concerns or related comments
- Substantial data are available regarding the benefits of physical activity for primary preventative benefits, physical activity patterns should begin in the early school years and continue throughout an individual's life. Schools must specifically designate physical education programs with aerobic activities for children at early ages. Programs should include recreational spots (e.g. - running, dancing, and - swimming). Support at home for an active lifestyle for children helps to promote healthy physical activity patterns. Consider intensity, duration, frequency, mode, and progression in all types of physical activity programs. As children and adolescents become adults and discontinue the athletic endeavors of school and college, primary prevention must include a plan for a lifetime of appropriate physical activity. Ideally, this activity should be performed for at least 30-60 minutes, 4-6 times weekly .or 30 minutes on most days of the week. The frequency, duration, and intensity of activity should be individualized (exercise prescription) to personal satisfaction, mode, and progression.

Benefits of Exercise:

- i. Routine exercise improves tissue VO₂ affects the following:
- ii. Improves insulin sensitivity

- iii. Improves glycemic control in persons with type 2 diabetes (and, hence, decreases overall mortality)
- iv. Decreases blood pressure
- v. Decreases low-density lipoprotein and triglyceride levels
- vi. Increases high-density lipoprotein levels

Considerable data also support evidence that exercise may decrease the prevalence of colon cancer and endometrial cancer. Exercise also helps with osteoarthritis and obesity, as well as reportedly benefits persons with migraine headaches and fibromyalgia.

Middle-aged men and women who work in physically demanding jobs or perform moderate to strenuous recreational activities have fewer manifestations of coronary artery disease than their less active peers. Meta-analysis studies of clinical trials reveal that medically prescribed and supervised exercise can reduce mortality rates for persons with coronary artery disease. Physical fitness comprises two related concepts: general fitness (a state of health and well-being), and specific fitness (a task-oriented definition based on the ability to perform specific aspects of sports or occupations). Physical fitness is generally achieved through correct nutrition, exercise, and enough rest. General:

1. They should consist of rhythmic rather than of sustained contractions.
2. They should be vigorous, somewhat prolonged, and should usually be continuous.
3. They should involve considerable movement on the part of the trunk as well as the limbs.
4. They should be accompanied by full and free respiration. The Importance of Walking as a Means of Exercise,
5. It is advisable not to confine oneself wholly to one form of exercise.
6. Considerations Concerning Fatigue.
7. Some Examples of General Exercises: Cycling.'
8. Some Examples of General Exercises: Games.
9. Fresh Air not a Substitute for Muscular Activity,

Specific;

Some specific exercise for cricket-

1. Strength Glovework Drill
2. Agility Glovework Drill
3. Reaction Glovework Drill
4. Speed Glovework Drill
5. Explosive Power Glovework Drill
6. Alternative Explosive Power Drills Conclusion:

From the above topic it is concluded that exercises play an utmost importance in maintaining the physical and physiological fitness of a sportsman or an athletic

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Nutrition Supplements And Ergogenic Aids

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Abstract –

Nutritional Supplement industry has grown tremendously in India in last 5 years and Nutritional supplements and ergonomic aids are being used widely by young or beginner athletes, without knowing its bright and dark sides. This commentary examines some of research and practical issues with supplementation used to enhance both training and competitive performance of athletes.

KEYWORDS – Nutritional supplement, Ergogenic aids, Performance ,carnitine , criatinin

Introduction-

Nutritional supplements and ergogenic aids provide calories, vitamins. Contribute to performance and enhance recovery after exercise and enhance after recovery. They are believed to stimulate & maintain muscle growth. They contain micronutrients, herbal, or cellular components that are promoted as ergogenic aids to enhance performance.

Following is the discussion about leading nutritional supplements and ergogenic substances used frequently in sports by both elite and recreational athletes.

Amino Acids-

The use of individual amino acids to enhance performance & have not found clear benefits. Some have proposed that branched chain amino acids may provide energy and delay central nervous system fatigue, thus improving performance. Studies in humans however have shown inconsistent results. Because safety and effectiveness have not been established, they are not recommended.

“Andro” & Dhea-

The adrenal gland synthesizes the testosterone precursor's androstenedione and dehydroepiandrosterone (DHEA). Manufacturers claim that supplements of “andro” & DHEA increase testosterone levels and enhance muscle building – a kind of natural steroid. Studies of DHEA have found increase in androgen levels (including testosterone) in women and elderly men with low serum DHEA, but not in younger men. Two recent studies of androstenedione supplementation in men had mixed results; low doses of andro (100mg/day) did not raise serum testosterone levels, whereas 300mg/day did.¹

In one of these studies that looked at response to strength training andro was not effective in improving strength or muscle gains.²

It was studied andro use caused estrogen levels to raise, a potentially serious side effect.

No long term study have tested the safety of androstenedione & DHEA.³

Despite the success reported anecdotally, by few high profile athletes, hormone precursors are not recommended, because they have many potentially negative effects, in fact the international Olympic committee (IOC), national football league, NCAA, US tennis association, banned the use of androstenedione.

Little is known about the side effects of steroidal supplements, but if large quantities of these compounds substantially increase testosterone level in body, they are likely to produce same side effects as anabolic steroids.

Anabolic steroid abuse has been associated with a wide variety of adverse side effects, ranging from some that are physically unattractive (example-acne, gynecomastia) to others that are life threatening (Myocardial infarction & hepatic carcinoma) most are reversible but some are permanent.

Caffeine-

It is a natural stimulant, research suggest that caffeine may affect athletic performance by facilitating signals between the nervous system and the muscles as well as decreasing and athlete's perceived efforts during exercise. Caffeine may also increase body's ability to breakdown fat for energy. In well controlled study subjects who injected a high caffeine load one hour before exercise, used less muscle glycogen and increase their endurance.⁴

Dose used in above study was 9mg/kg body weight

Lower levels of caffeine intake also have ergogenic effects and will not cause diuresis.

Carnitine-

A natural compound in food synthesized in liver and kidneys from amino acids, lysine, methionine. Carnitine helps transport long chain fatty acids into the mitochondria, where they are broken down. The appeal to the athlete is the idea that supplemented carnitine could help move fat chains to mitochondria faster, so they will metabolize more quickly.

Short term long term supplement of carnitine however have not been shown to augment muscle use of fatty acids.⁵

Even though exercise increases carnitine excretion in the urine its availability in food and ready synthesis the body make it unlikely that supplemented carnitine will benefit athlete.⁶

Chromium-

Trace mineral chromium is vital to the movement of glucose into the cell because of the link between chromium glucose use and insulin; it has become a more popular supplement (in the form of chromium picolinate). By enhancing insulin action chromium increases amino acid uptake which increases protein synthesis and promote a gain in muscle mass

Ubiquinone-

In mitochondria of muscle cells ubiquinone actively help transfer electrons in electron transport chain, it may also function as an antioxidant and spare vitamin e. In both athlete and sedentary people, supplementation with approx. 100mg/day has shown Variable effects on aerobic performance.

Early studies have shown positive results had poor study designs. Studies using control groups show no improvement in exercise performance or reduction in oxidative stress induced by exercise.

Colostrum-

Rich in nutrients & immunoglobulin and insulin like growth factors IGFs, the report in 1997 showed that athletes supplemented with bovine colostrums showed increased level of IGF-1. its is an anabolic hormone banned by IOC, but if athletes could increase their IGF level through colostrums supplementation, it could be a legal route to enhance performance.

Creatinine-

It is a nitrogenous compound in fish and meat is synthesized by the pancreas, liver and kidney. Creatine supplementing improve the explosive power needed for sprints.⁷

They appear to have no benefit for aerobic training. The main side effect seems to be immediate weight gain, attributable to water retention. Increase in muscle mass are probably a response to the increased stress that an athlete can put on muscle tissues by maximal exercise burst-the supplement without weight training will have no effect. Muscle cramps, strains, kidney dysfunction & GIT distress have raised concerns.

Ephedrine-

It was the most popular ergogenic supplement until it was banned in US by the FDA in 2004.⁸³ it stimulates the CNS & is an effective bronchodilator, found in many products as either the herbal mahuang (ephedra) or the synthetic ephedrine, serious side effects & even deaths have been reported.

Government sponsored review if safety and efficacy concluded that the use of ephedrine is associated with two or three time the risk of nausea, vomiting, psychiatric symptoms such as anxiety, and change in mood, autonomic hyperactivity and palpitations.

Ginseng-

For thousands of years Chinese people have used the root of ginseng plant to treat and prevent numerous disorders modern day use of ginseng continuous because many people believe it combats a wide range of stresses. Because some reports suggest it improves athletic performance by increasing aerobic capacity.

Glutamine-

It is a non essential amino acid, it is a popular supplement for strength athletes, glutamine can be classified as a conditionally essential amino acid because in situation of severe catabolic stress endogenous production cannot keep up the bodies use.⁸

Proponents of glutamine supplements suggest that intense weight training produces severe catabolic effect on muscle protein and therefore would increase glutamine requirement.

Pyruvate-

Carbohydrate breakdown produces pyruvate and dihydroxyacetone a partial replacement for dietary carbohydrates enhance aerobic endurance capacity. But an increased blood glucose concentration which would spare muscle glycogen appears to be responsible; pyruvate supplementation has been associated with GI distress. To support the claim that pyruvate enhances the endurance much more research is needed.

Ribose-

It's a 5 carbon monosaccharide that makes a part of adenosine portion of ATP & is a key component of DNA & RNA. They accelerate the synthesis of muscle ATP which would allow longer training intervals.

Sodium Bicarbonate-

Some consume sodium bicarbonate in belief that it will neutralize the lactic acid in muscles. No improvement in performance is seen in short term exercise lasting 30-100 sec. while events lasting from 2-10 min have shown positive results.⁹

Bicarbonate loading can have stomach upset, cramp, cramping, diarrhea and water retention .it also increases blood alkalinity and influences BP.

Conclusion-

Anecdotal reports in competitive sport indicate that there are athletes who use several ergogenic aids in combination without supervision and pay little or no attention to the possibility of interactive effects. Whether the combined effect of multiple ergogenic aids is the sum of the individual effects of each aid in isolation is unknown. The impact of multiple loading of ergogenic aids on the likelihood of gastrointestinal distress is also unknown and hence should be taken with caution and under physicians supervision

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Role Of Yoga In Our Society

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Abstract

In Vedic Sanskrit, the more commonly used, literal meaning of the Sanskrit word yoga which is "yoke", "to join", "to unite", or "to attach" from the root yuj, already had a much more figurative sense, where the yoking or harnessing of oxen or horses takes on broader meanings such as "employment, use, application, performance" (compare the figurative uses of "to harness" as in "to put something to some use"). All further developments of the sense of this word are post-Vedic. More prosaic moods such as "exertion", "Endeavour", "zeal" and "diligence" are also found in Epic Sanskrit. Yoga is a traditional method of meditation developed by the saints of ancient India. They practiced yoga as an effective method of controlling their mind and bodily activities. Yoga in Daily Life is a system of practice consisting of eight levels of development in the areas of physical, mental, social and spiritual health. When the body is physically healthy, the mind is clear, focused and stress is under control. The benefits of yoga are extensive. Daily exercises are a great way to help relieve the stress of your day and can bring a sense of well-being to your life. Yoga can help reduce the effects of stress on your body. Daily exercises of yoga can help ease the aches and pains of the body. You will learn to take deeper, slower breaths with daily exercises of yoga. The benefits of yoga will include lengthening the muscles, tendons, and ligaments in your body to help you become more flexible. Daily exercises are always recommended, but yoga helps reduce the level of Cholesterol in your body. This aids in weight loss and fat burning. The benefits of yoga are very far reaching indeed. There is no one other exercise avenue you can take that will address all of these issues in one simple session. For those of you that think yoga is too easy, I encourage you to try one class. You may find it is just what you are looking for.

Key Words: Yoga, society.

Introduction

In Vedic Sanskrit, the more commonly used, literal meaning of the Sanskrit word *yoga* which is "yoke", "to join", "to unite", or "to attach" from the root *yuj*, already had a much more figurative sense, where the yoking or harnessing of oxen or horses takes on broader meanings such as "employment, use, application, performance" (compare the figurative uses of "to harness" as in "to put something to some use"). All further developments of the sense of this word are post-Vedic. More prosaic moods such as "exertion", "Endeavour", "zeal" and "diligence" are also found in Epic Sanskrit.

Importance of Yoga

Yoga is a traditional method of meditation developed by the saints of ancient India. They practiced yoga as an effective method of controlling their mind and bodily activities. Yoga in Daily Life is a system of practice consisting of eight levels of development in the areas of physical, mental, social and spiritual health. When the body is physically healthy, the mind is clear, focused and stress is under control. This gives the space to connect with loved ones and maintain socially healthy relationships. When you are healthy you are in touch with your inner Self, with others and your surroundings on a much deeper level, which adds to your spiritual health. Yoga increases the flexibility of the spine, improves body's physical condition and heightened awareness to the importance of relaxation. It has been emphasized that each exercise be practiced slowly, coordinating movement with the breath, pausing motionless in each position and always with full concentration. Yoga teaches you to focus on breathing while you hold the poses. This attention to breath is calming it dissolves stress and anxiety. Yoga can help cure insomnia, as regular yoga practice leads to better and deeper sleep. Yoga can help fight fatigue and maintain your energy throughout the day. Yoga is an effective treatment for a variety of autoimmune diseases because it can reduce the symptoms these diseases often cause, such as stiffness, malaise, fatigue, and weakness. Because yoga is a form of meditation, it results in a sense of inner peace and purpose, which has far-reaching health benefits.

Benefits of Yoga

The benefits of yoga are extensive. Not only does yoga affect the physical aspect of the body, it addresses the mind and spirit as well. Daily exercises are a great way to help relieve the stress of your day and can bring a sense of well-being to your life. Here are the top ten benefits of yoga.

Stress Relief

Yoga can help reduce the effects of stress on your body. One of the benefits of yoga is that it encourages relaxation and can lower the amount of cortisol in your body.

Pain Relief

Daily exercises of yoga can help ease the aches and pains of the body. Many people with very serious diseases have reported less pain after these daily exercises, such as asanas or meditation.

Better Breathing

You will learn to take deeper, slower breaths with daily exercises of yoga. It will help to increase your lung function and set off the body's relaxation response. This can be one of the most powerful benefits of yoga.

Flexibility

You will notice your level of flexibility will increase, which will help with your range of motion. Sometimes in the yoga daily exercises, people cannot even touch their toes. The benefits of yoga will include lengthening the muscles, tendons, and ligaments in your body to help you become more flexible.

Increased Strength

Yoga poses use all the muscles in your body and help you increase your strength level from head to toe. The benefits of yoga and daily exercises will help you strengthen your muscles close to the bones, which increase the support of your skeletal system as well.

Weight Management

You will see the benefits of yoga begin to affect your scale. Daily exercises are always recommended, but yoga helps reduce the level of cortisol in your body. This aids in weight loss and fat burning.

Improved Circulation

Yoga will help improve your body's circulation. In turn, with daily exercises, you will see the benefits of yoga with lowered blood pressure and pulse rates.

Cardiovascular Conditioning

Even the most gentle style of yoga will help to lower your resting heart rate and increase your overall endurance. This is one of the important benefits of yoga to help improve the amount of oxygen taken in during the daily exercises.

Focus on the Present

You can have greater coordination, memory skills, reaction times, and improved concentration skills by utilizing yoga for daily exercises. These benefits of yoga will extend far out of the yoga center.

Inner Peace

What more could you want. This is one of the primary reasons that people do daily exercises of yoga. This is one of the most important benefits of yoga and is also one of them or easy ones to attain.

Conclusion

In Vedic Sanskrit, the more commonly used, literal meaning of the Sanskrit word *yoga* which is "yoke", "to join", "to unite", or "to attach" from the root *yuj*, already had a much more figurative sense, where the yoking or harnessing of oxen or horses takes on broader meanings such as "employment, use, application, performance". All further developments of the sense of this word are post-Vedic. More prosaic moods such as "exertion", "Endeavour", "zeal" and "diligence" are also found in Epic Sanskrit. The benefits of yoga are very far reaching indeed. There is no one other exercise avenue you can take that will address all of these issues in one simple session.

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Principles Of Injury Prevention

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Abstrat

The sports medicine professional is concerned with the well being of the athlete and generally assumes the responsibility for overseeing the total health care for the athlete. Participation in sports places the athlete in a situation in which injury is likely to occur. Fortunately, most injuries are not serious and lend themselves to rapid rehabilitation, but the sports medicine professional must be capable of dealing with any type of trauma or catastrophic injury.

A. Physical Conditioning

Physical conditioning is a key principle of injury prevention. Appropriate conditioning programmes decrease the risk of injury, decrease the severity of an injury should it occur, and can help prevent re-injury. Maximising the chance for safe athletic performance requires adequate muscular strength and balance, power, endurance, neuromuscular coordination, joint flexibility, cardiovascular endurance, and good body composition for sport.

Improving specific components of fitness and conditioning reduces the risk of injuries. For example, strengthening the muscles of a joint helps reduce injuries to the area; regular exercise can significantly increase the strength of the ligaments surrounding the knee and prevent knee injuries; development provides increased strength that helps to stabilise joints; and improved movement skill is important in avoiding injury.

1. Strength

To improve muscle strength, stress must be progressive and gradually challenged or placed under additional loading. A conditioning programme's effects are specific to the type of stress applied. The SAID principle (Specific Adaptation to Imposed Demands) states that as the body is placed under stress of varying intensities and durations, it attempts to overcome the stress by adapting specifically to the imposed demands. For example, muscles around a joint can be developed and conditioned to provide optimal stabilisation of the joint. Likewise, when a muscle primarily produces motion of a joint, proper conditioning can prevent the muscle from undergoing an unwanted movement. The demands of a specific athletic event must be a progressive stress applied in that athlete's training.

Other components of strength conditioning that contribute to injury prevention are the ability of the muscle to contract or exert force at an accelerated speed, and muscular endurance, which allows the athlete to maintain an appropriate strength level over a period of time.

2. Balance

Proprioceptive or kinesthetic sense through balance training enhances motor control, which is needed to decrease the risk of injury or re-injury during practice or competition. When injury to a joint or musculo-tendinous structure occurs, somato-sensory information is altered, adversely affecting motor control. Hence, rehabilitation should emphasise restoring the athlete's balance strategies. This will also decrease the risk of recurrent injury. The balance training tasks must be specific to the type of balance strategies required by the athlete's event.

3. Flexibility

Efficient performance requires a full range of motion, and adequate joint flexibility also decreases an athlete's susceptibility to injury. Normal muscular length-tension and adequate extensibility upon stretch aid in protecting the body from injury. The athlete's entire body is able to work more efficiently and safely after a period of warm-up, stretching, and skill-drills that are related to the athlete's event.

The warm-up period before practice or competition increases the body's tissue temperature prior to subjecting the musculo-tendinous structures to repeated stretch and contraction. Connective tissue has visco-elastic properties, which allow elongation of the tissue. Temperature has a significant influence on the mechanical behaviour of connective tissue under tensile stretch. Higher temperatures at low loads produce the greatest elongation with the least damage to connective tissue. Increased connective tissue temperature also increases extensibility.

Optimal stretching occurs only when voluntary and reflex muscle resistance is eliminated. Ballistic stretching is not a favorable method because as the muscles stretch rapidly, the intrafusal muscle spindles may be activated, causing a reflex protective muscle contraction. Forceful ballistic stretching can also cause micro trauma of muscle fibers.

4. Endurance

Cardiovascular endurance is also a factor in injury prevention. The cardiovascular and respiratory systems must be adequately conditioned to delay the onset of fatigue. A fatigued athlete becomes vulnerable to injury when the nervous and muscular systems are unable to respond adequately to an injury-producing situation.

B. Appropriate Training Methods

Ensuring proper, efficient mechanics requires practice and effective coaching, including a systematic series of specific, repetitive, and progressive exercises and drills. Faulty mechanics must be corrected and good fundamentals ingrained. Exercises should include strength, relaxation, and flexibility specifically geared to the demands made on the body.

C. Rest and Recovery

Adequate sleep is important for general good mental and physical health, and becomes critical for recovery after intensive workouts. Chronic overexertion and fatigue can make the athlete susceptible to injury.

D. Muscle Soreness

Muscular over-exertion may present as muscle soreness, muscle stiffness, and muscle spasm. According to the *muscle spasm hypothesis* of muscle soreness, ischemia to the muscles releases pain substances from the muscle fibres and stimulates the pain receptors, resulting in reflex spastic contractions and a continued cycle of ischemia and pain. Stretching the muscles helps reduce the spasms and associated pain. According to the *tissue damage hypothesis*, micro-tears occur and pain/soreness results from the nerve-endings being stimulated by muscle tissue swelling. Proper massage may aid in reducing tissue oedema and decreasing accompanying muscle spasm. Ice applications or other forms of cryotherapy, and pool training, may facilitate the body's healing response. Appropriate rest will allow microscopic damage of the tissue to heal.

E. Appropriate Equipment

Shoes are the most critical piece of a track and field athlete's equipment and should be individually and carefully selected. Proper fitting shoes can mean the difference between a low and a high risk of injury for a track and field competitor. Training in improperly fitted shoes can result in chronic abnormal pressures to the foot and cause stress injuries or structural deformities. Minor skin irritations such as calluses and blisters can prove to be major hindrances to a runner. Improperly fitted or worn-out shoes can lead to mechanical disturbances and postural, muscular, and joint dysfunctions.

The recent revolution in shoe research, design, and production has created a plethora of shoes from which to choose. However, the athlete's shoes must meet the biomechanical requirements and adapt to the demands of the individual's event. Shoe surveys can be useful in analysing the specific qualities of shock absorbency, foot control, and flexibility, but athletes and coaches must be aware that new shoe models have produced new injury syndromes.

Field event implements must meet use and safety specifications. Every member of the sports team (coach, official, sports medicine personnel, athlete) must be aware of any hazardous field situation where the field event practices and competitions take place, and take action to assure the highest level of safety

F. Psychological Factors

Athletes need to be psychologically prepared for practices and competition in order to reduce the risk of injury. Research has demonstrated a positive relationship between stressful life situations, especially those with high negative stress, and injury occurrence. In understanding the stress-injury relationship, Nideffer (1983) points out that muscle tension increases in response to stress. Increased tension in the antagonist and agonist muscle groups results in reduced flexibility and loss of motor coordination. Increased muscular tension also slows reaction time, which reduces the athlete's ability to respond.

Mental as well as physical fatigue can contribute to injury occurrence. The attention factor—the ability to maintain a high level of concentration—requires a large amount of energy; when combined with a rigorous training programme, reduced attention can result. This may lead to slowed reaction times and loss of neuromuscular coordination, thus increasing the potential for injury.

Athletes who have sustained an injury realise that they have to be mentally ready for return to sport to avoid risking re-injury. The role of attentional focus and muscular tension can be a major problem. Fear and/or worry about a second injury can cause stress and increased muscular tension. Preliminary studies have addressed hardiness (commitment, control, and challenge) of the athlete as a moderating factor in the stress-injury relationship. Athletes who exhibit greater qualities of this trait may be better able to control the attentional processing of information and in turn reduce the potential for occurrence of a second injury.

G. Training in Extreme Conditions

Athletes and coaches should take into account the temperature and humidity during training, and the need to acclimate after travel to a different, extreme climate or altitude. Extreme heat and humidity, cold, and altitude can adversely affect performance in many athletic events. To avoid dehydration and the fatigue that can occur from inadequate fluid replenishment, athletes must drink extra water, juices, and other fluids. Athletes should learn to drink before they feel thirsty—by the time an individual is aware of thirst, they've lost 1% of their body weight; by 2% dehydration, the athlete may have reduced his or her work capacity by 10–15%. Assuring adequate water, and juices or sports drinks, helps keep the participant energised, focused, and better able to concentrate.

Conclusion

The health and safety of the athlete must be the number one priority in any practice or competitive situation. If unsafe climatic conditions occur, training should be curtailed, and practice or competition times re-scheduled to allow the safest environment for all participants

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Role of Physical Education, & Other Disciplines in Enhancing the Performance of Players & Fitness for Young & New India

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“Friends, it is the matter of pride for all of us Indians that today wherever the sun is raising and the sunrays are reaching as the light is expanding, that every land in this world is welcoming the sun by Yoga. From Dehradun to Dublin, Shanghai to Chicago and from Jakarta to Johannesburg there is only Yoga today.” –These were the lines of honourable PM of India Shri. Narendra Modi, the only Prime Minister to promote Yoga and Physical education, on 21st June 2018 the International Yoga Day held in Dehradun. This shows the growing importance of Physical Education in Today’s world where a Prime Minister is himself taking the responsibility of teaching Yoga to thousands of youngsters.

What is Physical education? Does it mean just exercise? Physical education itself explains that it’s an education it means something related to learn, to educate yourself. Your physical body is an outer shell to the sensitive organs inside including your brain. Physical education develops the knowledge and understanding, skills, capabilities and attributes necessary for mental, emotional, social and physical wellbeing now and in the future. Physical fitness is an important component to leading a healthy lifestyle. The inclusion of regular fitness activity helps you to maintain fitness, develop muscular strength and improve cardiovascular health. It can be a major force in helping small children to socialize with others and it provides opportunities to learn positive people skills. Physical education is very vast topic which includes an overall development of human being.

Physical education plays an important role in sports, every sport revolves around this word ‘fitness’. Rather, no sport can be played without physical fitness. To give the best performance on the ground is only possible if you are physically and mentally strong enough. For this, different sports have their own fitness test according to the requirement of respective sports to enhance the performance of the players. The best example of this is Yo-Yo test, which is the physical fitness test developed by Danish soccer physiologist Jens Bangsbo. There are two versions of this test: Level 1 & 2 (a beginners and advanced level). The level one test is effectively the same as the standard beep test. The Level 2 test starts at a higher running speed and has different increments in speed. There is also an intermittent version of the Yo-Yo test, which incorporates a recovery period after each 40m (2x20m) run. This test evaluates an individual's aerobic endurance fitness and large groups can perform this test all at once for minimal costs. Virat Kohli, the Cricket icon while speaking to Times of India spoke at length about the change in fitness that has affected him as a player. "It had to do with playing at a certain level in professional sport. I realised that when I started getting fitter, I started thinking better. I had more clarity, focus and determination. I started feeling that inside me as soon as I changed my physical regime. Getting fitter makes you confident overall. It makes you feel good about yourself. You need to feel good to have good thoughts," said Kohli. So, a quality physical education programs help all players develop health-related fitness, physical competence, cognitive understanding, and positive attitudes to perform the best in their respective games.

But lack of physical activeness is still a treat to Indian youths, a report by Indian Council of Medical Research (ICMR) shows that physical inactivity is very common in India. Around 54.4 percent people were found inactive during a study by the government agency, reports *The Times of India*. The data further shows that males are significantly more active than females. However, people spend more active minutes at work than in commuting and recreation domains. Fewer than 10 percent engage in recreational physical activity. Physical inactivity is not just leading to a high disease burden and deaths, but it is also posing a major threat to productivity and contributing significantly to health expenditure. One in five adults, and four out of five adolescents (11-17 years) globally, do not get enough physical activity. This physical inactivity is not only affecting the health instead it’s also affecting the economy, it is costing USD 54 billion in direct healthcare, a latest report by the World Health Organisation (WHO) shows. According to WHO, physical inactivity (lack of physical activity) has been identified as the fourth leading risk factor for global mortality (6 percent of deaths globally). Moreover, physical inactivity is estimated to be the main cause for approximately 21–25 percent of breast and colon cancers, 27 percent of diabetes and approximately 30 percent of ischaemic

heart disease burden. Released in 2016, a world-first study revealed that in 2013 physical inactivity cost USD 67.5 billion globally in in healthcare expenditure and lost productivity, revealing the enormous economic burden of an increasingly sedentary world.

Thus we can conclude that, in today's world physical education is essential for all the youths. An individual can live healthy and better life only by doing physical exercise. Today new diseases are emerging and have made big harm to human's body. Man's life has become dependent on medicines. For example, digestive medicine, medicine for excretion, medicine for sleep, etc. Because of these medicines man has become like a walking robot. In such condition it is not fair to waste your body. How sad it is that man has time to do the service of technical gadgets like car, freeze, television but he does not have time to take care of his valuable body. Through physical education man can live his day to day life healthily. Physical education plays important role in man's development and proves helpful for better physical, mental, social, emotional and spiritual life.

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Role of Physiotherapist

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Physiotherapy is a treatment method that seeks to restore your body's function and movement, as well as provide pain relief and promote healing. Physiotherapy has existed as a form of treatment for dysfunctions and disabilities for years. It is considered a key treatment in the rehabilitation of patients suffering from debilitating conditions as a result of accidents or diseases. Sport Physiotherapist treats a wide range of injuries. Physical therapy also known as physiotherapy, is one of the allied health professions that, by using mechanical force and movements (bio-mechanics or kinesiology), manual therapy, exercise therapy, and electrotherapy, remediates impairments and promotes mobility and function.

The Sport Physiotherapist has experience with the Return to Sport or Work or Life aspect of a treatment plan. A carefully planned Progressive Exercise program will allow the athlete or worker or average person to return to activity in a safe manner, reducing the risk of re-injury. A thorough understanding of the symptoms of concussion and its current treatment protocols allows the Sport Physiotherapist to provide proper guidance to not only the athlete that has sustained a concussion in sport. The young soccer player with a sprained ankle will be more comfortable and heal faster when supportive taping is applied at the end of treatment.

Sport Physiotherapist attempts to address the illnesses, or injuries that limit a person's abilities to move and perform functional activities in their daily lives. Sport Physiotherapist use an individual's history and physical examination arrive at a diagnosis and establish a management plan and, when necessary, incorporate the results of laboratory and imaging studies like X-rays, CT-scan, or MRI findings. Electrodiagnostic testing (e.g., electromyograms and nerve conduction velocity testing) may also be used. Sport Physiotherapist management commonly includes prescription of or assistance with specific exercises, manual therapy and manipulation, mechanical devices such as traction, physical agents which includes heat, cold, electricity, assistive devices and other interventions. In addition, Sport Physiotherapist work with individuals to prevent the loss of mobility before it occurs by developing fitness and wellness for healthier and more active lifestyles, providing services to individuals, maintain and restore maximum movement and functional ability throughout the lifespan. This includes providing therapeutic treatment in circumstances where movement and function are threatened by aging, injury, disease or environmental factors. Functional movement is central to what it means to be healthy.

The skills of a Sport Physiotherapist include athletic taping, functional return to sport training, exercise physiology, sport massage, and concussion evaluation and management. The Sport Physiotherapist has the skills and ability to work with sport organizations to help establish a comprehensive medical support system for an organization, whether it is at the grassroots level or the high-performance level. The skills of athletic taping can be applied not only court side, but more often in the clinical setting. Athletic taping, exercise physiology, functional return to activity, protective equipment knowledge are important skills for clinical orthopaedic therapists.

Any athlete experienced a sports related injury, he know that physical therapy is vital for recovery and pain management. It can also help you manage ongoing or chronic conditions. Physiotherapy is a treatment method that seeks to restore your body's function and movement, as well as provide pain relief and promote healing.

The field of physical therapy can address a broad host of injuries and issues, including:

- **Tendon injury**
- **Ligament issues**
- **Rheumatoid or Osteoarthritis**
- **Muscle strain**
- **Back Pain**
- **Work-related injuries or falls**
- **Post-operative healing**

Post Injury: Why is Physiotherapy Important?

Post injury, sportsman do not have the knowledge or skill set to rehabilitate themselves safely. They may find themselves in significant pain and frustrated. Or, they may have experienced a similar injury in the past and think they can treat it without help. Post injury, it's important to have a proper diagnosis and safe treatment plan. Physiotherapist skilled in proper rehabilitation. They work with you to tailor a treatment program that fits your needs. Treatment plans are geared to provide pain relief, improve strength and mobility, increase range of motion and relieve stress. Since each person and injury is unique, the duration and type of treatment will vary.

Sports Physiotherapy

Sport Physiotherapist are closely involved in the care and wellbeing of athletes. This area of practice encompasses athletic injury management under five main categories:

1. Acute care – assessment and diagnosis of an initial injury;
2. Treatment – application of specialist advice and techniques to encourage healing;
3. Rehabilitation – progressive management for full return to sport.
4. Prevention – identification and address of deficiencies known to directly result in, or act as precursors to injury, such as movement assessment.
5. Education – sharing of specialist knowledge to individual athletes, teams or clubs to assist in prevention or management of injury

Sport Physiotherapist who work for professional sport teams often have a specialized sports certification issued through their national registering organisation. Most Physical therapists who practice in a sporting environment are also active in collaborative sports medicine programs.

Orthopaedic physical therapists diagnose, manage, and treat disorders and injuries of the musculoskeletal system including rehabilitation after orthopaedic surgery. Acute trauma such as sprains, strains, injuries of insidious onset such as tendinopathy, bursitis and deformities. This speciality of physical therapy is most often found in the out-patient clinical setting. Orthopaedic therapists are trained in the treatment of post-operative orthopaedic procedures, fractures, acute sports injuries, arthritis, sprains, strains, back and neck pain, spinal conditions, and amputations. Joint and spine mobilization/manipulation, therapeutic exercise, neuromuscular techniques, muscle reduction, hot/cold packs, and electrical muscle stimulation are modalities employed to expedite recovery in the orthopaedic setting. Additionally, an emerging adjunct to diagnosis and treatment is the use of sonography for diagnosis and to guide treatments such as muscle retraining. Those who have suffered injury or disease affecting the muscles, bones, ligaments, or tendons will benefit from assessment by a physical therapist specialized in orthopaedics.

Back pain treatment

Physiotherapy is scientifically proven to be one of the most effective ways to treat and prevent pain and injury. It strengthens muscles and improves function. It not only reduces or removes pain for a short time, but also reduces the risk for future back-pain re-occurrence. Based on the particular diagnosis, varied methods are practiced by physiotherapists to treat patients. They may follow pain management program, which helps get rid of inflammation and swelling for some.

The Importance of Physiotherapy for Athletes

Professional athletes have the access to a physiotherapist around the clock during training and competition. For athletes to continue to have a full range motion, prevent injuries, and have the power to win gold medals, they need to be treated by physiotherapists to prevent or treat injuries and reduce recovery time. You may or may not be a professional athlete however, regardless of your level of athleticism, it's important to make regular appointments with your physiotherapist to maintain your physical health and prevent further damage to your body. Physiotherapists focus on evaluating, restoring and maintaining physical function and mobility. Athletes are always moving and pushing their limits. All this stress and exhaustion can take a toll on your health. Many athletes suffer from pain whether it's from "wear and tear" or a sports related injury. A physiotherapist can offer athletic injury management, including acute care, treatment and rehabilitation and education to prevent further injury and pain. In addition, being treated by a physiotherapist will ensure that you are being treated specifically towards the type of sport you play. Every sport is different making treatment and rehabilitation different too! For example, in track and field, rehabilitation can be integrated into training and can ensure that the athlete returns to competitions faster. Some common conditions that runners suffer from include shin splits, planar fasciitis, Achilles tendonitis and anterior knee pain.

Treatments for athletes can include movement control, exercise functional rehabilitation and mobilizations. Pushing your body to its limits puts a lot of stress and pressure on your muscles and joints. To prevent injury and ensure you're at peak physical form in competitions, regular visits to a physiotherapist are essential. An athletes' body is like a well-used machine, it runs it's best when maintained properly. A customized physical therapy program can help individuals return to their prior level of functioning and encourage activities and lifestyle changes that can help prevent further injury and improve overall health and wellbeing.

1.Reduce or eliminate pain- Therapeutic exercises and manual therapy techniques such as joint and soft tissue mobilization or treatments such as ultrasound, taping or electrical stimulation can help relieve pain and restore muscle and joint function to reduce pain. Such therapies can also prevent pain from returning.

2.Avoid surgery- If physical therapy helps you eliminate pain or heal from an injury, surgery may not be needed. And even if surgery is required, you may benefit from pre-surgery physical therapy. If you are going into a surgery stronger and in better shape, you will recover faster afterwards in many cases. Also, by avoiding surgery, health care costs are reduced.

3.Improve mobility- If you're having trouble standing, walking or moving—no matter your age—physical therapy can help. Stretching and strengthening exercises help restore your ability to move. Physical therapists can properly fit individuals with a cane, crutches or any other assistive device, or assess for orthotic prescription. By customizing an individual care plan, whatever activity that is important to an individual's life can be practiced and adapted to ensure maximal performance and safety.

4.Recover from a stroke- It's common to lose some degree of function and movement after stroke. Physical therapy helps strengthen weakened parts of the body and improve gait and balance. Physical therapists can also improve stroke patients' ability to transfer and move around in bed so that they can be more independent around the home, and reduce their burden of care for toileting, bathing, dressing and other activities of daily living.

5.Recover from or prevent a sports injury- Physical therapists understand how different sports can increase your risk for specific types of injuries (such as stress fractures for distance runners). They can design appropriate recovery or prevention exercise programs for you to ensure a safe return to your sport.

6.Improve your balance and prevent falls- When you begin physical therapy, you will get screened for fall risk. If you're at high risk for falls, therapists will provide exercises that safely and carefully challenge your balance to mimic real-life situations. Therapists also help you with exercises to improve coordination and assistive devices to help with safer walking. When the balance problem is caused by a problem in one's vestibular system, Physical therapists can perform specific manoeuvres that can quickly restore proper vestibular functioning and reduce and eliminate symptoms of dizziness or vertigo.

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Lifestyle of Working and Household Women

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Abstract

The purpose of the study was to compare the Lifestyle of Household and Working Women. For the present study researcher had collected data from Ambagate, Amravati. Twenty (20) Women (10 Household Women and 10 Working Women) were selected as subjects with purposive sampling methods. The age of the subjects were ranged between 30 to 35 years. Lifestyle was measured with Life Style Scale developed by S. K. Bawa & S. Kaur. Statistical analysis was done on the basis of 't' test. The level of significance was kept on 0.05 of degree of freedom. Result shows that on the basis of mean difference there was difference between the means of various dimensions of Lifestyle between Working Women and Household Women. To see this difference is significant or not at 0.05 level of significance. Researcher further calculated 't' test & above table shows that there is significant difference were found in Health Conscious Lifestyle, Academic Oriented Lifestyle, Career Oriented Lifestyle, Social Oriented Lifestyle and Lifestyle between Working Women and Household Women as the calculated 't' value 5.736, 7.06, 6.873, 3.625 and 2.202 was greater than tabulated 't' value 2.101. But there is insignificant found were found in Trend Seeking Lifestyle and Family Oriented Lifestyle between Working Women and Household Women, as the calculated 't' value 1.91 and 1.762 is lesser than the tabulated 't' value 2.101.

the backbone of a her family as they have a high level of patience to deal with every issue of
Keyword: Lifestyle, Working Women, Household Women, etc.

Introduction

Women are considered to be family. Since many decades, the world has been seeing the power of women.

A few ladies like to remain as housewives while some choose to keep working even after marriage. Prior, the people across the world were narrow minded and they restricted women from working.

Household Women

A household women has more time to spend with her family and kids. They are always busy with their house work, they do not need to hurry with their lifestyle. A household women is free from the control of an angry or depressed boss and can take her own time in doing the household activities. A household women is always free from the work stress and meeting the deadline of her work. One of the most major reasons why most of the marriages fail is due to the constant stress. A household is free of this stress. A household women experiences more freedom than the working women. A household women has a lot of time to spare for the activities they like. They can engage themselves in sewing, cooking classes, gardening, etc and explore new skills. They can regular practice their existing skills and can develop themselves. This gives women a feeling of achievement and keeps them happier. A happy relationship continuous a long way.

Working Woman

A working women can be stated as a woman who earns a salary, wages, or other income through regular employment, outside the home. The main advantage preferred of a working women is that they are a major monetary support to their family in this world of ever rising inflation. Working women always act as a wellspring of motivation for their children's as well as their family. They come across the various difficulties of the outer world and also find a solution to them.

The dual roles of the women in her working place and at home, imply that the degree of involvement in various "homemaker" roles such as "Chief Cook", "Mother", "Housekeeper", will differ from the non-working women for whom such roles are the focal point of her existence. Consequently, the time and effort devoted household women, as well as concepts of appropriate behavior of household women, may differ from those of the working women. The lifestyle of household women is much different from the working women.

Lifestyle can be stated as an attitude, interests, opinions, behaviours, and behavioural orientations of an individual, group, or culture. Lifestyle is a style of life or living style which not only affects the individual who adopts it but also affects society an community. Moreover it also includes

pattern of social interactions, consumptions, entertainments and dressing style it reflects person's views, habits, attitude and the way of living style which make direct influence on the person daily life. In the other word it is a "way or style of living".

Every individual has their own way and style of living. Thus, lifestyle can be stated as "a person's pattern of living expressed through his activities, interests and opinions." Owing to this fact one may have health oriented lifestyle, family oriented, academic oriented or career oriented lifestyle. Keeping this in mind the dimension of lifestyle has been constructed having the following dimensions : 1] Health Conscious Lifestyle, 2] Academic Oriented Lifestyle, 3] Career Oriented Lifestyle, 4] Family Oriented Lifestyle, 5] Socially Oriented Lifestyle & 6] Trend Seeking Lifestyle. Hence the researcher has taken the study "Lifestyle of Household and Working Women".

Materials and Methods

Subject:

For the present study researcher had collected data from Ambagate, Amravati. Twenty (20) Women (10 Household Women and 10 Working Women) were selected as subjects with purposive sampling methods. The age of the subjects were ranged between 30 to 35 years. Lifestyle was measured with Life Style Scale developed by S. K. Bawa & S. Kaur.

Statistical Analysis

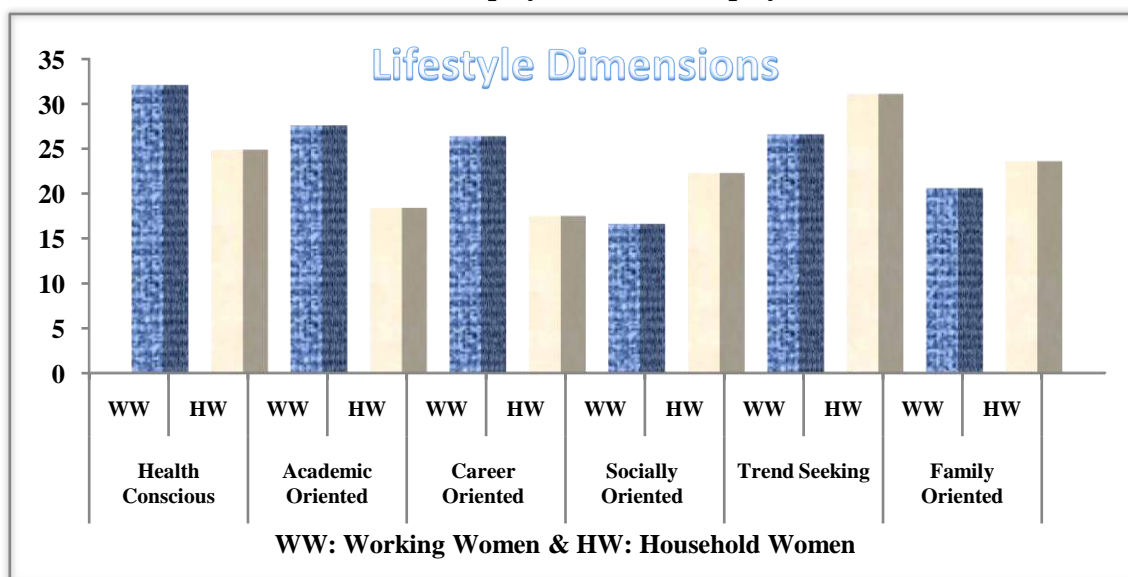
Statistical analysis was done on the basis of 't' test. The level of significance was kept on 0.05 of degree of freedom. Statistical analysis is shown in the following table.

Table-1
Comparison of Various Dimensions of Lifestyle and Lifestyle between Government Employee and Self Employee

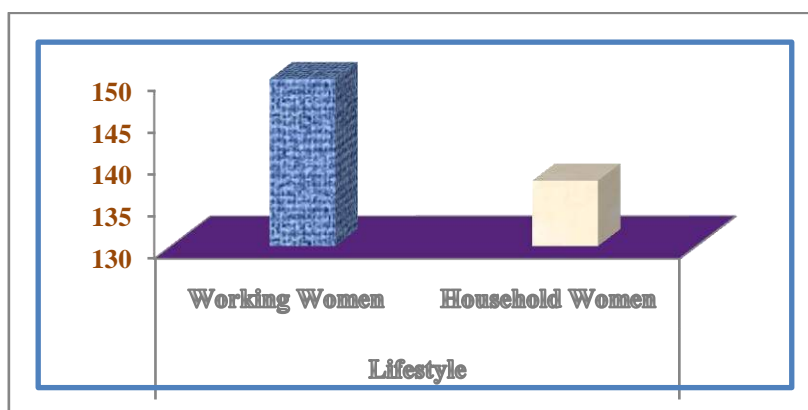
Variables	Subject	Mean	SD	SE	MD	Obt 't'	Cal 't'
Health Conscious	Working Women	32.1	3.03	1.25	7.2	5.736*	2.101
	Household Women	24.9	2.55				
Academic Oriented	Working Women	27.6	2.63	1.3	9.2	7.06*	
	Household Women	18.4	3.16				
Career Oriented	Working Women	26.4	3.16	1.29	8.9	6.873*	
	Household Women	17.5	2.59				
Socially Oriented	Working Women	16.6	2.98	1.57	5.7	3.625*	
	Household Women	22.3	3.97				
Trend Seeking	Working Women	26.6	5.64	2.35	4.5	1.91	
	Household Women	31.1	4.86				
Family Oriented	Working Women	20.6	3.13	1.7	3	1.762	
	Household Women	23.6	4.37				
Lifestyle	Working Women	149.9	11.59	5.49	12.1	2.202*	
	Household Women	137.8	12.94				

*Significant at 0.05 level

Graph-2
Comparison of Various Dimensions of Lifestyle between Government Employee and Self Employee



Graph-2
Comparison of Lifestyle between Working Women and Household Women



Result

The above table shows that on the basis of mean difference there was difference between the means of various dimensions of Lifestyle between Working Women and Household Women. To see this difference is significant or not at 0.05 level of significance. Researcher further calculated ‘t’ test & above table shows that there is significant difference were found in Health Conscious Lifestyle, Academic Oriented Lifestyle, Career Oriented Lifestyle, Social Oriented Lifestyle and Lifestyle between Working Women and Household Women as the calculated ‘t’ value 5.736, 7.06, 6.873, 3.625 and 2.202 was greater than tabulated ‘t’ value 2.101. But there is insignificant found were found in Trend Seeking Lifestyle and Family Oriented Lifestyle between Working Women and Household Women, as the calculated ‘t’ value 1.91 and 1.762 is lesser than the tabulated ‘t’ value 2.101.

Conclusion

From the above result we found that there is significant difference were found in Health Conscious Lifestyle, Academic Oriented Lifestyle, Career Oriented Lifestyle, Social Oriented Lifestyle and Lifestyle between Working Women and Household Women. Working Women shows better in Health Conscious Lifestyle, Academic Oriented Lifestyle, Career Oriented Lifestyle, Social Oriented Lifestyle and Lifestyle as compared to Household Women. The differences may be attributed to that Working Women enjoys many health benefits because of various health insurance

and health program offered by Government. As in Academic Oriented Lifestyle and Career Oriented Lifestyle working Women were always eager to improve their Educational and Career because of their placement/promotion and as well as to be success in their life as compared to Household Women. Whereas there is insignificant difference were found in Trend Seeking Lifestyle and Family Oriented Lifestyle between Working Women and Household women, it may be attributed that both were enjoy the same level of social and family life.

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Sports Medicine a Branch of Physical Education and Sports Advancement

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Sports medicine,

Medical and paramedical supervision, of athletes in training and in competition, with the goal of prevention and treatment of their injuries. Sports medicine entails the application of scientific research and practice to the optimization of health and athletic performance.

Since the revival of the Olympic Games in 1896, increased participation in sport and training for sports have resulted in the need to not only prevent and treat sports injury but also advance the scientific knowledge of the limits of human exercise performance and the causes of fatigue. Moreover, with increased training levels and specialization across the spectrum of recreational sports and with opportunities for sport participants to become professionals, there has been a parallel increase in the careers to support the care and training of athletes and physically active individuals.

Sports Medicine Specialties

Sports medicine is an umbrella term representing a broad array of specialties that bridge the academic disciplines of medicine and physical education as well as the basic sciences (e.g., physiology, chemistry, and physics). Within clinical medicine, physicians in primary care or paediatrics may become team physicians for competitive teams at all levels (interscholastic, intercollegiate, professional, and amateur sports). Other members of a sports medicine team typically include an orthopaedic surgeon, a certified athletic trainer, a physical therapist or kinesiologist, and a strength-and-conditioning specialist. Other professionals, such as those in the areas of sports nutrition, sports psychology, sports physiology, podiatry, sports vision, sports dentistry, and chiropractic, are valuable consultants.

Although sports medicine is more commonly thought to be related specifically to orthopaedic medicine, with respect to the treatment and prevention of injuries occurring in a sport, other medical specialties in cardiology, psychiatry, gynaecology, and ophthalmology can also play an important role in comprehensive sports medicine. For example, cardiac rehabilitation is an important area in sports medicine that employs not only doctors but also allied health professionals, such as registered clinical exercise physiologists and nurses. These individuals help patients recover and improve their functional capacity following cardiovascular events such as heart attack or cardiac surgery.

A sports medicine team physician can be called upon to treat a wide variety of sports-related injuries or illnesses. One example is an overuse type of injury, such as a stress fracture in the foot or lower leg. An injury such as this can be caused by any of a variety of problems, including muscle imbalance, muscular weakness arising from a lack of proper strength training, improper footwear or abnormal gait, inadequate mineral or other nutrient intake that upsets the caloric balance necessary for training, hormonal deficiency, and overload of exercise training volume, frequency, and intensity. Thus, to effectively treat an overuse injury, a team physician needs expertise and knowledge in a wide range of sports medicine issues.

Sports Medicine Organizations

The Fédération Internationale de Médecine du Sport (International Federation of Sports Medicine, or FIMS) is the international organization for national sports medicine associations worldwide. Founded as the Association Internationale Médico-Sportive (AIMS) during the Olympic Winter Games in St. Moritz, Switzerland, in 1928, the organization is today strongly tied to the International Olympic Committee (IOC). The primary goal of FIMS is to support elite athletes in their training and competition by providing outstanding medical care in order to prevent and treat injuries. FIMS also has an interest in facilitating fair play while maximizing performance potential through optimal health habits. The organization fulfills this task by promoting the importance of proper nutrition and rest and by advancing the understanding of ideal training regimens.

In 1954 the American College of Sports Medicine (ACSM) was established to bring together medical doctors, university researchers, and physical educators to advance the study and understanding of the impacts of physical exertion on the human body. The overarching goal of the ACSM is to champion the beneficial aspects—physical, mental, emotional, and social—of sports and fitness activities that enhance the health and quality of life for all individuals, from youth to the

elderly and from frail patients with disease to elite sport performers. The organization has members from around the world whose professional careers span the broad array of disciplines already described; notably, clinicians, researchers, and sport practitioners are within its member ranks.

Other professional sports medicine societies and organizations in the United States include the American Orthopaedic Society for Sports Medicine, the American Medical Society for Sports Medicine, and the American Osteopathic Academy of Sports Medicine. These and many other professional associations are represented as members of the Joint Commission on Sports Medicine and Science.

Many other countries also have sports medicine societies and sports science associations. These entities are often geared specifically toward either clinical medicine or sports science.

Sports Medicine And Health

The use of exercise and sport as a therapy to prevent chronic disease is well established. The wide range of health benefits of exercise stem from the several key elements that comprise physical fitness: cardiorespiratory endurance, muscular strength, muscular endurance, flexibility, agility, and body composition.

The relationship between regular physical activity and health has been well established worldwide. Governments of numerous countries have published guidelines that describe the amount of physical activity needed for health, although these guidelines may vary slightly.

In 2008 the U.S. government released *Physical Activity Guidelines for Americans*, the country's first published set of guidelines on the "dose," or amount, of physical activity needed to maintain health for individuals aged six and older. This document was based on a rigorous review by an expert panel of the scientific literature available on exercise and health. The panel found strong evidence indicating that 150 minutes of moderate to vigorous exercise per week for adults helped prevent a wide range of diseases, including cardiovascular disease, stroke, diabetes, hypertension (high blood pressure), certain types of cancer, and depression. This amount of exercise for adults was also associated with a reduced risk of early death, of falls, and of weight gain. There was also moderate evidence indicating that this level of physical activity aids in the prevention of hip fracture, osteoporosis, lung cancer, and endometrial cancer; facilitates weight maintenance after weight loss; and improves sleep quality.

The 2008 U.S. report also indicated that for individuals aged 6 to 17 the baseline dose of exercise needed to obtain health benefits was 60 minutes or more of physical activity every day (physical activity was defined as aerobic or endurance exercise of moderate or vigorous intensity). The greatest health benefits were associated with vigorous activity at least three days per week. Muscle-strengthening and bone-strengthening activities performed at least three days per week for children and at least two days per week for adults were also found to improve health.

In Canada, youths are encouraged to obtain even more minutes of daily activity (60 moderate and 30 vigorous minutes). In general, similar guidelines have been established for all individuals, and they are not considered to be optimal training doses for various sports and athletes. Training for competitive sports generally requires additional sports medicine expertise.

Exercise in therapeutic doses is powerful in preventive medicine. Therefore, in the broadest of terms, sports medicine is applicable to any individual who includes movement as a part of his or her daily life as well as to those who compete on teams or in individual sports—from youth to masters-level events.

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Sports Coaching And Training

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Abstract

Due to the fact that sports training represents a complex process which involves planning, organization, leading and assessments, a managerial approach becomes the key of the successful preparation, by providing various tools for each component of the performance activity. This paper is an essay about the main meanings of coaching and the sports coaches. Our purpose is to analyze coaching as one of the management tools that can induce changes and have benefits when adopting sports training strategies focused on the performance reaching. We think that coaching produces a fundamental change of the way in which athletes perceive themselves and their teammates or opponents, by increasing their involvement in the unique goal fulfillment.

What is the purpose of training?

Answering this question will provide direction for every coach and sport psychologist. For me this is simple: to improve the athlete's technique, skills, tactics and self-development. Athletes will spend hours and hours, days and days, weeks and weeks even years and years working on techniques, skills and tactics. Therefore our job as sport psychologists is to enhance the athlete's performance (Burton et al, 2008; Tenenbaum & Eklund. 2007).

However there are many examples of 'drills' being used, which do not reflect these values and lack the match conditions. A classic example is catching practice where athletes throw a ball to their partner and visa versa. However on match day the ball comes off a bat, at various speeds and trajectories. Now after the athlete has spent hours of throwing to their partner are they going to recognise the correct stimuli?

This is why ALL training needs to replicate match stimuli, including practicing on the pitch (surroundings), using a batsman and hitting catches (stimuli) towards the athletes. The athletes should be standing in fielding positions (surroundings and stimuli), this will enable them to recognise the correct stimuli quicker. This in turn creates time for the athlete to execute the skill of catching (Schmidt & Wrisberg, 2008).

After all once we have a basic motor programme for a skill (Fitts & Posner, 1967), we need to identify when to execute this motor programme (Schmidt, 1975). Therefore we need to be exposed to the correct stimuli, from the match day surroundings and match day speeds. As the following points highlight if we fail to recognise the correct stimuli then the skill execution will not be correct. This is how it happens:

Stimuli Identification is a constant feed of information (Short Term Sensory Memory)

- Pattern Recognition where the stimuli identification feed gets collected. Allowing us to track the stimuli via this feed and store in the Short Term Memory
- This information (Pattern Recognition) then gets matched in the Long Term Memory with previously experienced patterns. This information is linked to a motor programme, which will be executed
- The motor programme runs, with adaptations being made from the constant feed (Short Term Sensory Memory)

Hypothesis

Coaches occupy a central role in sport, fulfilling instructional, organizational, strategic, and social relationship functions, and their relationships with athletes influence both skill development and psychosocial outcomes of sport participation. This review presents the major theoretical models and empirical results derived from coaching research, focusing on the measurement and correlates of coaching behaviors and on intervention programs designed to enhance coaching effectiveness.

A strong empirical literature on motor skill development has addressed the development of technical sport skills, guided in part by a model that divides the skill acquisition process into cognitive, associative, and autonomous phases, each requiring specific coaching knowledge and instructional techniques. Social-cognitive theory's mediational model, the multidimensional model of sport leadership, achievement goal theory, and self-determination theory have been highly influential in research on the psychosocial aspects of the sport environment. These conceptual models have inspired basic research on the antecedents and consequences of defined coaching behaviors as well as

applied research on coach training programs designed to enhance athletes' sport outcomes. Of the few programs that have been systematically evaluated, outcomes such as enjoyment, liking for coach and teammates, team cohesion, self-esteem, performance anxiety, athletes' motivational orientation, and sport attrition can be influenced in a salutary fashion by a brief intervention with specific empirically derived behavioral guidelines that focus on creating a mastery motivational climate and positive coach-athlete interactions. However, other existing programs have yet to demonstrate efficacy in controlled outcome research.

Keywords: coaching behaviors, leadership measurement, behavioral assessment, motor skill development, social cognitive theory, multidimensional leadership model, achievement goal theory, self-determination theory, coaching behavior interventions, psychosocial outcomes

Coaches occupy a central role in sport, fulfilling instructional, organizational, strategic, and social relationship functions. Athletes' skill acquisition, success, enjoyment, continued participation, and physical and psychological well-being are all strongly influenced by coaching behaviors. Not surprisingly, therefore, research on coaching behaviors and their consequences have been a strong focus of research in sport and exercise psychology. This body of scientific literature illustrates important reciprocal linkages between theory, research, and practice. This review focuses on three central facets of this research literature: measurement of coaching behaviors; relations between coaching behaviors and other variables, and interventions designed to enhance coaching practices.

Methodology

The Center for Sports Medicine and Methodology is dedicated to helping coaches, scientists, professionals and executive personnel to advance in the fields of competitive sport, sports-for-all and physical activity using the most modern scientific and professional means available.

The Center is under the direction of Dr. Yitsik Ben-Melech, an expert with extensive experience in training theory.

The main areas dealt with by the Center are:

- Monitoring, controlling and providing consultation on methodology, science and sports medicine to competitive athletes, national teams, teams, referees and individual athletes.
- Deepening the knowledge base of coaches and executive sports professionals through advanced courses, study days and conventions.
- Providing training, certification and enrichment through special courses in competitive and elite sports, in coordination with various sport organizations and associations.
- Course for senior sports directors
- Course for senior coaches and courses in training theory and sport sciences
- Course for sports media
- Special projects for the population at large and for those engaging in competitive and elite sport
- The "Healthy Lifestyle" project for the Israel Defense Forces
- Project to advance coaches, instructors and other personnel.
- Enrichment and training course in physical fitness and coordination.
- Sports psychology

In recent years the Center has provided its services to national coaches, coaches of various teams and senior athletes, personnel in administrative, sport, scientific, methodological and media positions related to competitive sports, elite sports and sports-for-all.

Courses at the Center for Sports Medicine and Methodology at the Academic College at Wingate

- Training, enrichment and certification in competitive and elite sport
- Specialization in training theory and the sport sciences
- Specialization in training female athletes
- Senior Sports Director – to see the flyer click here
- Sports media
- Enrichment courses for competitive and elite sport coaches
- Enrichment course in physical fitness and coordination

Conclusions and Recommendations

- There is currently insufficient data to accurately estimate the incidence of sports-related concussions in youth and in subpopulations of youth. Existing surveillance systems, including the National Collegiate Athletic Association Injury Surveillance System and the High School RIO™ surveillance system, provide data for collegiate and high school-level athletes in select

sports. There are very limited data on the incidence of sports-related concussions among pre-high-school-age youth and among those playing in youth clubs and recreational sports. There is also inadequate collection of data on potential concussion risk factors and modifiers. Understanding of the epidemiology of sports-related concussions is further hindered by variations in terminology and the data elements employed in relevant research. Federal interagency initiatives to identify common data elements for traumatic brain injury research, including research on concussions, and to develop the Federal Interagency Traumatic Brain Injury Research (FITBIR) informatics system may help to advance such research through the use of common definitions and standards. Incomplete data limits understanding of not only the incidence of sports-related concussions in youth overall and in specific sports but also of where there might be disparities and a need for targeted interventions. More complete epidemiological data would better enable researchers to assess the effectiveness of legislation and other interventions in reducing the incidence of sports-related concussions in youth.

1. Recommendation

The Centers for Disease Control and Prevention, taking account of existing surveillance systems and relevant federal data collection efforts, should establish and oversee a national surveillance system to accurately determine the incidence of sports-related concussions, including those in youth ages 5 to 21. The surveillance data collected should include, but not be limited to, demographic information (e.g., age, sex, race and ethnicity), preexisting conditions (e.g., attention deficit hyperactivity disorder, learning disabilities), concussion history (number and dates of prior concussions), the use of protective equipment and impact monitoring devices, and the qualifications of personnel making the concussion diagnosis. Data on the cause, nature, and extent of the concussive injury also should be collected, including

- Sport or activity
- Level of competition (e.g., recreational or competitive level)
- Event type (e.g., practice or competition)
- Impact location (e.g., head or body) and nature (e.g., contact with playing surface, another player, equipment)
- Signs and symptoms consistent with a concussion

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Obesity And Weight Control

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What Is It?

Obesity is an excess of body fat, It is difficult to directly measure body fat. Body mass index (BMI) is a popular method of denning a healthy weight. BMI should be used as a guide, along with waist size, to help estimate the amount of body fat. BMI estimates a healthy weight based on your height. Because it considers height as well as weight, it is a more accurate guide than body weight alone. To calculate your BMI: 1. Multiply your weight in pounds by 703, 2. Divide that answer by your height in inches, 3. Divide that answer by your height in inches again Then use the chart below to see what category your BMI falls into. BMI Category Below 18.5 Underweight 18.5-24.9 Healthy 25.0-29.9 Overweight 30.0 - 39.9 Obese Over 40 Morbidly obese What Are the Risks?

It can also put you at risk of developing anumber of conditions. These include:

1 High blood pressure, 1 Diabetes, 1 Heart disease,! Some forms of cancer

Many other health risks are higher for people who are obese. These risks may increase as the degree of obesity increases. Where you carry the extra weight is also important. People who carry extra weight around their waist may be more likely to experience health problems caused by obesity than those who carry it in their legs and thighs.

People become obese for a number of reasons. Often, several of these factors are involved. Which drugs/medicines can cause increased weight?

Which drugs/medicines can cause increased weight?

- UtHum:used lbrrr^cbipolar disorders. More.
- Cortisone: Cortisone, Prednisoe used for rheumatism and allergies
- Anti-seizure medicines: Depakote, Valproate.
- Mood stabilizers: Elavil, Tofranil, Xerostat, Cipramil, Sertralin, Zolbft, etc. More.
- Antipsychotics: Zyprexa, Paxil, Ergenyl, Absenor, Orfilir, Chlorprornzine.
- Migraine medicines: \$andomigrin, Ergeny 1, Trypizol.
- Oestrogen: Follimin, Follinett, Neovletta. » Insulin for type 2 diabetes: Insulatard, Humulin, Actrapid.
- Breastcancermedrciriesi Nolvadex^Tamoxifea
- Beta blockers: (aginst high blood pressure)

Inderal, Cardura. Re u mat ism cures: Etanercept,

Enhrel

Anti-heartburn medicines: Nexium, Prevacid (may instead cause weight loss for some people!)

In general, not all people using these drugs gain weight. The same drug may cause weight gain for some people and weight loss for other people. Do not stop using a medication without consultation with your physician. Almost always, there are alternative medicines which are just as good and do not cause weight gain. For example, Prozac/Fonex/ Fluoxetine is an anti-depressive medicine which more often cuses weight loss than weight gain.

Edication that negatively influences obesity

A growing problem is cropping up in modern days. That is the obesity, caused by medication. The medicine may be taken for some other purpose but it has contributed to induce obesity and the matter of fact is that, this type of obesity in most of the case, is very obstinate and refractory that dose not respond well to normal self regulatory efforts and it is always better to seek for some expert guide line before the thing goes beyond control.

There is an additional problem also as these sudden increase of body weight may give rise to some overt or hidden chronic problems, related to heart, blood pressure, diabetes or arthritis and may make the out come more complicated.

How Is Obesity Treated?

Three factors are considered when treating obesity: the severity of the obesity, the presence of other risk factors for heart disease, and the possibility of other health problems that may be caused or made worse by excess weight, '

Doctors now realize that it may be unrealistic to attempt to get a person who is obese to lose a large amount of weight and keep it off. However, recent studies have shown that even modest weight loss provides significant health benefits by reducing the risk for diabetes, heart disease, stroke, high blood pressure, and other diseases.

Everyone who is trying to lose weight should change his or her eating and exercise habits. Counseling or support groups are an important part of successfully making these lifestyle changes.

Doctors recommend that depression or physical problem that limits a person's ability to exercise be treated, if possible, before starting a weight-loss program. People with untreated depression often have a difficult time staying on a weight-loss program. If a person is unable to do at least mild exercise, he or she will have difficulty losing weight.

Weight-loss medications, either prescription or nonprescription, should only be used along with a weight-loss diet and exercise. Use of medications without lifestyle changes is unlikely to have great, long-term success.

A very low-calorie diet may be considered if you need to lose weight quickly to protect your health and your doctor decides it is a safe method for you to use. People are not kept on this diet for long periods of time because the diet lacks certain nutrients the body needs. Such diets should be done only with careful medical supervision.

Even if you and your doctor have developed a plan for weight loss, the daily decisions needed to make the plan work are up to you. Healthy, long-term success in conquering obesity depends on changing your eating and exercise habits. Surgery is a rarely used treatment for obesity. Many doctors will consider it only for people who have not been able to lose weight with other treatments and who are at high risk for developing other health problems because of their weight.

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Skills Of Sports Coaches

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The essential skills required of a sports coach while coaching the players and students are illustrated below.



Management

The key ways to demonstrate good leadership in coaching are:

- Checking that participants are well prepared and organised
- Checking that participants and appropriate others are well deployed
- Safe management and coordination of equipment and facilities
- Safe and well-delivered sessions
- Maintaining support and guidance to participants
- Establishing and maintaining effective communication with appropriate others within coaching environment.

Coaches will get the best from their sport if they are self-motivated and working in an atmosphere that allows them to:

- Enjoy their coaching sessions
- Share their experiences with others and socialise with peers and friends
- Compete in a safe and non-threatening environment
- Achieve negotiated goals
- Remain fit and healthy
- Achieve success and reward
- Please others and receive praise
- Create a positive self-image.

Analysing

As well as instructing people with what to do a coach must analyse their performance. Careful observation whilst a performer is practising in training or in competition can provide both the performer with some useful information to help them improve.

A coach must therefore know how to analyse things effectively. Analysis is about breaking down components into smaller chunks and looking at the strengths and weaknesses of each part. In order to do this the coach must have good knowledge of the demands of the sport and be very clear on the advised techniques and tactics.

Problem solving

Coaches need to be able to identify problems and create ways to solve them. This requires excellent analysis skills to determine what is going round and the ability to assess situations in order to come to possible solutions. This requires logical thinking and reasons to come to the best approach. Problems could arise in 4 main areas:

With the participant –

They may be unable to grasp a certain skill, from here the coach would have to identify where the participant was going wrong and put together a set of different practices they could do to help them improve.

With the coaching environment –

If a facility for example was double booked the coach would need to have a contingency (back up) plan in place to deal with the situation. This may involve communicating with people to look for extra facilities or adapting the training session to be played in a different environment.

With the competitive arena –

This may involve working with difficult opponents and coming up with tactics to overcome this. Or it may helping the team cope with heckling from the crowd.

Evaluating

Evaluating is a way of reflecting on how things have gone. Coaches are always keen to share their comments with the performer so they can help them reach goals and improve. In some cases however a coach may not reflect on their own performance as regularly. Instead they will just focus on what went well and not the areas to improve on e.g. did the session meet everyone's needs?

Effective evaluation should be impartial and contain both strengths and weaknesses, it should be completely honest and detailed to allow the best chance of learning from mistakes and improving.

Organisation

Planning and organisation are critical to the success of coaching. When planning a session there is much to consider, but the main points are to:

- Have identified a set of goals for the session
- Have an awareness of the resources available
- Have enough information about the participants
- Have developed a plan that allows participants to achieve.

During a session, coaches need to be constantly making judgements about the following:

- Is the practice working?
- What could be adapted and how?
- Are the facilities being used to full advantage?

Many coaches now keep records, usually in the form of logbooks. Many coaching qualifications require candidates to complete logbooks as part of the formal assessment process. Few coaches have the privilege of just turning up, coaching and going home. Often coaches are also involved in booking facilities, arranging equipment or contacting participants, which involves a great deal of organisation

Communication

Perhaps the single most valuable skill is the ability to convey your thoughts and ideas in such a way as to be easily understood. It is not enough to just present your opinions: you must be able to send effective message - ways to do this are both non-verbal and verbal.

i) Verbal

- Talking too much can lead to confusion. The pace, tone and volume of the spoken word will all have a marked effect on participants. The coach who spends most of their time shouting abuse will quickly lose the respect of their participants and will be less likely to be successful.
- You must also be able to receive incoming messages. You must also listen to the opinion from players regarding tactical decisions, drills in practice or perhaps concerning opponents.

- Good coaches will question their players and check understanding. If an instruction is not understood, this is either the fault of the performer lacking concentration or the coach in the quality of communication.
- ii) **Non- verbal**
 - Many sports have a range of incoming messages that may be non-verbal. These include watching and interpreting the signs and signals of others, players, officials etc...
 - Non-verbal communication may also include gestures and facial expressions; these may be from players or officials. A well time facial expression can say a lot more than words and coaches need to be aware of this at all times.

Teaching

One of the key processes of teaching is an understanding of how people learn. Drills and practices needs to be designed in a way that allows participants to progress at an appropriate pace. As a rule of good practice, the following model is useful when teaching skills:

- Introduce and explain the technique
- Demonstrate the technique
- Practice (allow performers to experience the technique)
- Observe and analyse the participants
- Identify and correct errors.

It is vital that learning is achieved in simple, short and logical steps. The most valuable knowledge that a coach can gain is through learned experience, judging for themselves and from their performers what is effective and what is not.

Coaching is a continuous process which lends itself to self-reflection and evaluation. Since the knowledge and skills required to be a successful coach are constantly changing and developing with the sport, it is unlikely that coaches will ever reach the point where they will know all that there is to know.

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Study Of Self-Esteem Of Kabaddi Players At Different Playing Position

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Abstract

The purpose of the study was to compare the Study of Anxiety level of Kabaddi players at different playing position. Fifty (50) male kabaddi players from various kabaddi mandals of Amravati were selected for this study. Subjects were selected with purposive sampling methods 10 each from different playing position i.e. 10 Center, 10 Third, 10 Corner, 10 Helper and 10 Raider. The age of the subjects were ranged between 20 to 25 years. The Questionnaire of Rosenberg Self-esteem scale which has 10 questions with four option i.e. Strongly Agree, Agree, Disagree and Strongly Disagree and 5 questions are reversed in valence. There is no time limit. The test was distributed to the players and the same were collected back after having filled by the players. Result shows that there is difference between the mean of self-esteem of kabaddi players at different playing position. To see this differences were significant or not One Way Analysis of Variances were implied. We found that there is significant difference between different playing positions of kabaddi players because calculated 'f' value is 10.162 which is greater than tab $F_{0.05(2,57)} = 3.354$. Since the 'f' ratio is found to be significant. From the Table of Post-hoc test we reviled that Corner and Raider shows significant differences whereas third and corner & third and raider shows insignificant.

Introduction

Self-esteem can be said as one's more or less sustained sense of liking oneself. Self-esteem refers to general feelings of self-worth or self-value of oneself. It is the way an individual feels about himself/herself and how he/she likes or dislikes to other people. Self-esteem is pride in oneself by which one is aware and accepts one's inherent strengths and positive qualities. In other words it is the judgment that people make of themselves. It could be high or low. When a person can accept his/her weaknesses and faults and simultaneously recognizes his/her strengths and positive qualities, the person will experience strong self-worth and high self-esteem.

Many studies shows that high self-esteem can improve health. Some shows that high self-esteem in young people lead to increased participation in sports activities. But low self-esteem is linked to greater participation in dieting behaviours. Some researcher founded that their average levels of physical conditioning, sports ability and perceived body attractiveness decreased as their age increased. At this age, there may be decreases in activity, leading to increases in levels of obesity and fatness. Therefore, self-esteem may be important in avoiding activity in increasing age.

He also found that the higher the person's self-esteem, the more likely they were to be involved in some form of physical activity, but low levels of physical self-esteem was linked to dieting behaviour e.g. Skipping meals, eating smaller portions, avoiding high sugar/high fat meals, which could eventually lead to maladaptive behaviours e.g. Eating disorders such as anorexia nervosa. Dr Hagger felt that people were more likely to engage in sports – a public activity – if they had higher self-esteem. He argues that professionals involved in sports should take self-esteem into account when designing healthy eating and physical activity programmes.

Athletes are vulnerable to the problem of attaching Self-esteem to one's performance because they are judged by how well you perform. Positive interaction of coach with athletes improves Self-esteem, low Self-esteem because vulnerable to variation in coaching behavior. But in sports Self-esteem has a greater impact, High Self-esteem is characterized by positive achievement, behavior, and sustained motivation. Low Self-esteem characterized by Dysfunction pattern of achievement. Behaviors suggesting that Self-esteem is a powerful character.

Self-Esteem is a basic motivational factor in sports. An individual undergoes a form of positive or negative Self-Esteem. Positive Self-Esteem is characterized by positive achievement, good behavior and sustains motivation. Negative Self-Esteem is characterized by a by-functional pattern of achievement and bad behavior. Suggesting that Self-Esteem is a powerful variable and its impact on athlete's motivation in sports. Hence the researcher has taken the study "Study of Anxiety level of Kabaddi players at different playing position"

Method

Fifty (50) male kabaddi players from various kabaddi mandals of Amravati were selected for this study. Subjects were selected with purposive sampling methods 10 each from different playing position i.e. 10 Center, 10 Third, 10 Corner, 10 Helper and 10 Raider. The age of the subjects were ranged between 20 to 25 years. The Questionnaire of Rosenberg Self-esteem scale which has 10 questions with four option i.e. Strongly Agree, Agree, Disagree and Strongly Disagree and 5 questions are reversed in valence. There is no time limit. The test was distributed to the players and the same were collected back after having filled by the players.

Analysis

Statistical analysis was done on the basis of ANOVA comparison of Self-esteem of kabaddi players at different playing position at 0.05 level of significance.

Comparison of level of Self-esteem of Kabaddi Players at Different Playing Positions

Table – 1

SV	SS	df	MS	F
between	135.2	2	67.6	10.162*
error	179.6	27	6.651	

*Significant at 0.05 level

$F_{0.05(2,27)} = 3.354$

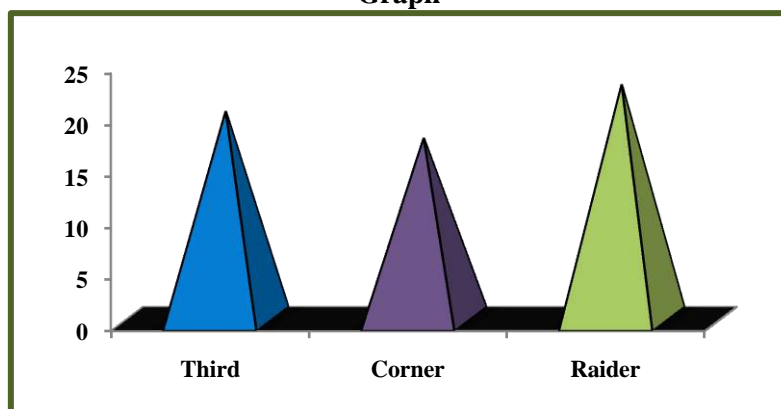
Post Hoc Test

Third	Corner	Raider	MD	CD
20.2	17.6		2.6	3.868
20.2		22.8	2.6	
	17.6	22.8	5.2*	

*Significant at 0.05 level

Above table shows that there is difference between the mean of self-esteem of kabaddi players at different playing position. To see this differences were significant or not One Way Analysis of Variances were implied. We found that there is significant difference between different playing positions of kabaddi players because calculated 'f' value is 10.162 which is greater than tab $F_{0.05(2,27)} = 3.354$. Since the 'f' ratio is found to be significant. From the Table of Post-hoc test we reviled that Corner and Raider shows significant differences whereas third and corner & third and raider shows insignificant.

Graph



Level of Self-esteem of Kabaddi Players at Different Playing Positions

Conclusion

Concluding we can say that there is difference between the mean of Self-esteem of kabaddi players at different playing position. To see this differences were significant or not One Way Analysis of Variances were implied. We found that there is significant difference between different playing positions of kabaddi players. By seeing the Mean we revealed that Raider shows high level of self-esteem followed by third playing position and corner playing position. It may be attributed that Raider practice or they give more time on ground which may develop their psychological factors as compared to third and corner means defensive players.

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Comparison Of Mental Stress of Inter University And Inter Collegiate Individual Game Maleplayers Of Dr. Babasaheb Ambedkar Marathwada University

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Abstract

The purpose of this study was to compare the mental stress between inter university and inter collegiate Individual game maleplayers of Dr. Babasaheb Ambedkar Marathwada University. The study was conducted on sixty samples, consisting of thirty Inter-college and thirty Inter-university Individual game maleplayers of different colleges affiliated to Dr. Babasaheb Ambedkar Marathwada University. Mental stress were obtained by administering Mental Stress Scale. The data collected through aforesaid tests were analyzed with respect to mental stress. T test was applied to compute the significances between inter university and inter collegiate Individual game maleplayers. The significance of data was judged at .05 levels. The result of the study indicates that mental stress of Inter-collegiate Individual game maleplayers was higher than Inter-university Individual game maleplayers.

Introduction

Stress is a psychological and physiological response to events that upset our personal balance in some way. Stress is a feeling of strain and pressure. This is one type of psychological pain. Small amounts of stress may be desired, beneficial and even healthy. Positive stress helps to improve athletics performance. It also plays a factor in motivation, adaptation and recreation to the environment. Excessive amounts of stress, however, may lead to bodily harm. Stress can increase the risk of strokes, heart attacks, ulcers, dwarfism and mental illnesses such as depression.

Stress can be external and related to the environment, but may also be created by internal perceptions that cause an individual to experience anxiety or other negative emotions surrounding a situation such as pressure, discomfort etc. which they then deem stressful. Stress can affect performance, the way an athlete responds to the stress can affect it and the management of stress can negatively or positively affect the athlete's stress level.

Martens, Vealey and Burton (1990) stated, "Stress has been defined as stimulus, intervening and response to variables.

Delimitations :

The study has been delimited to the inter-college and inter university Individual game maleplayers. Wrestling, Judo, Athletics, Cross country, Badminton, Table tennis, Archery, Rifle shooting, Gymnastics and Fencing players, in the age group of 18-27 years were drawn from Dr. Babasaheb Ambedkar Marathwada University Aurangabad and colleges affiliated to them.

Objectives of the study :

The objectives of the study are stated as follows:

- 1) To study the mental stress of Inter University Individual game maleplayers of Dr. Babasaheb Ambedkar Marathwada University.
- 2) To study the mental stress of Inter collegiate Individual game male players of Dr. Babasaheb Ambedkar Marathwada University.
- 3) To compare the mental stress between Inter collegiate and inter university Individual game maleplayers.

Hypotheses :

- 1) There would be no significant difference between Inter university and inter collegiate Individual game maleplayers on mental stress.
- 2) There would be significant difference between Inter university and inter collegiate Individual game maleplayers on mental stress.

Methodology:

Selection of Sample :

The sample consists of hundred male players of Dr. Babasaheb Ambedkar Marathwada University. The subjects were drawn from the colleges affiliated to Dr. Babasaheb Ambedkar Marathwada University Aurangabad. Purposive Sampling Technique was employed to select the subjects. The data was collected from Wrestling, Judo, Athletics, Cross country, Badminton, Table

tennis, Archery, Rifle shooting, Gymnastics and Fencing of Individual gamemaleplayers. The researcher will use survey research methodology for the study.

Tools used :

Dr. Vijaya Lakshmi and Dr. Shruti Narain’s Stress Scale has been taken to assess the mental stress. This questionnaire consisted of forty statements.

Method for Analysis:

Student’s T test has been applied to find out the significant differences among two groups at 0.05 level of significance. The collected data were tabulated to find out the difference of mental stress among intercollegiate and inter university Individual gamemale players.

Results and discusion:

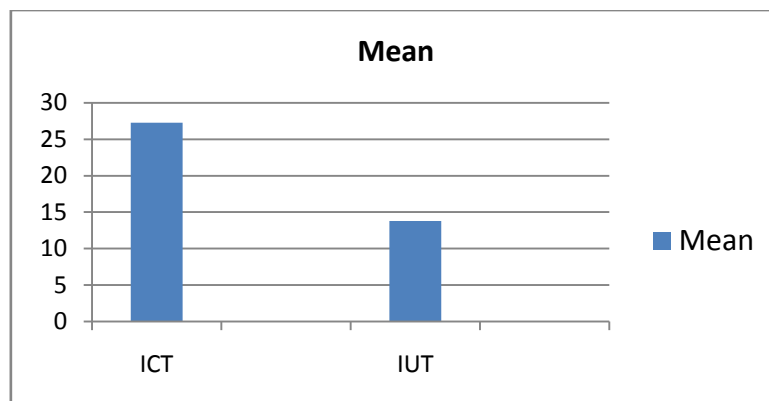
Table
Mean SDs and T value of mental stressbetween ICT and IUT Individual gamemaleplayers

Variable	Group	N	Mean	SD	T value
Mental stress	ICT	30	27.26	5.45	9.68
	IUT	30	13.8	5.32	

*Significant at .05 level.

The above table reveals that there is significance difference between Inter-university and Inter-collegiate maleplayers on mental stress. Thus it may be concluded that mental stress of Inter-university and Inter-collegiatemaleplayers are different.

Fig.1: Histograms showing mean scores of mental stressof Individual game ICT and IUT maleplayers.



Mental stress of Inter-collegiateindividual game maleplayers has been higher than Inter-universityindividual game maleplayers. Due to lack of physical activity and social interaction, the Inter-collegiateindividual game maleplayers have higher mental stress than Inter-university individual game maleplayers. The result of the study indicates that mental stress of Inter-collegiate individual game maleplayers was higher than Inter-university individual game maleplayers.

Conclusion:

- 1) There is significant difference between Intercollegiate and Inter University Individual gamemaleplayeron mental stress.
- 2) Mental stress of Inter-collegiate Individual gamemaleplayers has been higher than Inter-university Individual gamemaleplayers.

Yoga and Nation Building

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Abstract

The word Yog means, coming together, strong relations, combine, merging the two things, joining, the joining of individual self with the Supreme self, individual will with the universal will. This union with the God is the goal of life. It is the expansion of narrow selfish egoistic personality with all pervasive eternal unselfish blissful state of reality. In other sense it is the union of body, mind and soul. Let us try to understand it in the deeper sense. Equanimity is yoga, serenity is Yoga, skill in action is yoga, control of senses and the mind is yoga, anything by which the best and the highest in life can be attained is yoga. Yoga is the state of Samadhi. It integrates the personality by bringing the body mind coordination in a well balanced way. It elevates oneself by calming the mind, a higher state of mind. It opens up our creativity, so it is the skillful trick to calm down the mind. It is the state of higher powers and potentialities and even as the ultimate state of silence and perfection. It helps a normal human being to elevate to the super or divine human being instead of falling into animal human being. It is an all round personality development. These fundamental thoughts we need to inculcate from childhood, through our secular educational system. Physical fitness of our body and mind is not only for the individual growth, which would really contribute for the fitness of our society that will lead to make this nation great. Let this thought be always there when we do Yoga asana in our daily life. Without taking care of this body and mind we become useless to family and society, so need to practice yoga in daily life, in the same time keep a feeling of oneness with the society, then the man making and Nation building become easier.

Keywords: Yoga, Nation Building

Introduction

The word Yog means, coming together, strong relations, combine, merging the two things, joining, the joining of individual self with the Supreme self, individual will with the universal will. This union with the God is the goal of life. It is the expansion of narrow selfish egoistic personality with all pervasive eternal unselfish blissful state of reality. In other sense it is the union of body, mind and soul. Let us try to understand it in the deeper sense.

Equanimity is yoga, serenity is Yoga, skill in action is yoga, control of senses and the mind is yoga, anything by which the best and the highest in life can be attained is yoga. Yoga is the state of Samadhi. It integrates the personality by bringing the body mind coordination in a well balanced way. It elevates oneself by calming the mind, a higher state of mind. It opens up our creativity, so it is the skillful trick to calm down the mind. It is the state of higher powers and potentialities and even as the ultimate state of silence and perfection. It helps a normal human being to elevate to the super or divine human being instead of falling into animal human being. It is an all round personality development.

All these are different definitions to understand the concept of yoga in a different way defined by great saints, yogis and in different scriptures. When we try to understand we find a unique characteristic in all great yogis is the union with the society. Never any such realized souls preached for the self salvation alone. According to them, the real salvation is identifying oneself with the society. This is the reason why greatest yogis, advised to the humanity to serve humanity selflessly to attain higher form of satisfaction, happiness, moreover the self realization and this is the real higher form of yoga, the ultimate.

Swami Vivekananda said "Each soul is potentially divine; the goal is to manifest the divinity within by controlling the nature by work, worship, philosophy and psychic control" So when we understand that the same potentiality or the divinity is there with others then really our outlook changes towards others or even our approach and attitude changes. We start loving others, caring others and start understanding others. We start identifying our self with our body, our family, our relatives, our neighbors, our society our culture, our nation and even with the universe. That leads for the union with the supreme. Kindle the light of love in our heart first, love everything. Let us unite the individuals with love and care. This concept should be kept in our mind when we practice daily Yogasana or want to lead yogic way of life. The greatest need of the world today is the message of serving the society with love and compassion.

The root cause of all problems in modern life is the craving for the worldly enjoyment. It is the fact that the enjoyment cannot bring you the satisfaction of desire; on the contrary, it aggravates

desire and makes man more and more restless. The more you search, more you unhappy become, and then the desire also grows when it is not fulfilled. So we can't be happy as long as the craving for the enjoyment exists.

When we try to understand the concept of yoga, the main misconception is that, it is only mere practice of physical postures, exercises, yogasanas, pranayama, different cleansing techniques or even the meditation alone. Really speaking, all these are only small part of great Yoga. Throughout the day what all we do, everything can be seen through a yogic outlook. When we do physical exercises or Asana/Pranayama it becomes Raja Yoga. When we surrender to the almighty in spiritual way it become Bhakti yoga, When we engage in doing our duty or responsibilities with full devotion, it becomes Karma Yoga and when we try to acquire knowledge it become Jnana Yoga. The society requires help in all these different ways. It can be intellectual, financial, contributing time with likeminded organizations, spiritually helping others and showing the higher dimensions of life, spreading the message of Yogabhyasa in daily life and there by controlling the diseases. All these can be different form of selfless service which our society is in need of.

These fundamental thoughts we need to inculcate from childhood, through our secular educational system. Physical fitness of our body and mind is not only for the individual growth, which would really contribute for the fitness of our society that will lead to make this nation great. Let this thought be always there when we do Yogasana in our daily life. Without taking care of this body and mind we become useless to family and society, so need to practice yoga in daily life, in the same time keep a feeling of oneness with the society, then the man making and Nation building become easier.

Conclusion

The word Yog means, coming together, strong relations, combine, merging the two things, joining, the joining of individual self with the Supreme self, individual will with the universal will. These fundamental thoughts we need to inculcate from childhood, through our secular educational system. Physical fitness of our body and mind is not only for the individual growth, which would really contribute for the fitness of our society that will lead to make this nation great. Let this thought be always there when we do Yogasana in our daily life. Without taking care of this body and mind we become useless to family and society, so need to practice yoga in daily life, in the same time keep a feeling of oneness with the society, then the man making and Nation building become easier.

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Importance of Physical Education in Schools

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Abstract

Any type of physical activity is natural to a human being. Physical activities are necessary for human growth and development. As such physical education has been a part of human being since time immemorial. As time passed on, human life and their activities become more complicated, and the physical activities which were found to be beneficial for different purposes for human beings were selected. In fact walking, running, jumping, throwing physical education has been developed on these basic movement. Physical education is basically a movement skills. In this context the main purposes of teaching physical education is to make an individual physically fit, mentally alert, emotionally stable, socially hermonious and adjustable. So, these days more emphasis is being given to the physical activities by different countries. A country needs not just citizens but citizens with sound mind with a sound physique. Quality physical education programs are needed to increase the physical competence, health-related fitness, self-responsibility, and enjoyment of physical activity for all students so that they can be physically active for a lifetime. Physical education programs can only provide these benefits if they are well-planned and well-implemented. Every student in our nation's schools, from PK-12, should have the opportunity to participate in quality physical education. Why is quality physical education important? Quality physical education programs help all students develop health-related fitness, physical competence, cognitive understanding, and positive attitudes about physical activity, so that they can adopt healthy and physically active lifestyles. Quality physical education programs provide learning experiences that improve mental alertness, academic performance, and readiness and enthusiasm for learning in our nations' youth.

Keywords: Physical Education, Importance, School.

Introduction

Any type of physical activity is natural to a human being. Physical activities are necessary for human growth and development. As such physical education has been a part of human being since time immemorial. As time passed on, human life and their activities become more complicated, and the physical activities which were found to be beneficial for different purposes for human beings were selected. In fact walking, running, jumping, throwing physical education has been developed on these basic movement. Physical education is basically a movement skills. In this context the main purposes of teaching physical education is to make an individual physically fit, mentally alert, emotionally stable, socially hermonious and adjustable. So, these days more emphasis is being given to the physical activities by different countries. A country needs not just citizens but citizens with sound mind with a sound physique.

Need and Importance of Physical Education

Physical education refers to the process of imparting systematic instructions in physical exercise, sports, games, and hygiene. The term is generally used for the physical education programs at school and colleges.

Education aims at the training of the body, mind, and conduct of a student. To keep a healthy mind within a healthy body, a student needs regular physical exercise.

The brain of students gets tired after schoolwork. His mind refuses to work. Therefore, for diversion and refreshment of mind, he requires some organized forms of physical and mental work.

Physical education forms an important part of modern education. Almost every school can boast of a playground, and one or two teams. In every modern school and colleges, after class work, students join various sports and games. The students generally take to all kinds of physical activities and show a great deal of interest in them.

Various kinds of games, sports, and physical exercises are taught in schools as part of physical education program. Some of them are outdoor, others indoor. The outdoor games include football, hockey, cricket, tennis, badminton, volleyball, and so on. Sports include popular pastimes like swimming, boating, athletic activities like pole jump, long jump, racing, and javelin throwing. Students are also taught physical exercises to improve and maintain good health.

Importance physical education to students

Physical Education is of special importance to students.

1. They are great sources of pleasure to them.
2. They build the body and refresh their mind.

3. They train the mind in many virtues.
4. They teach the players discipline and team spirit. In school sports, the players have to obey certain rules. They have to submit to the ruling of the referee or the umpire. Thus, they learn discipline and obedience.
5. Physical education creates in students 'the sporting spirit'. The students learn to play fair and honorably and to keep the rules of the game.
6. They learn to be fair to their opponents.
7. They develop pluck and patience.
8. School sports teach them to take a defeat in a good spirit.

The Importance of Physical Education and Recreation in Schools

Quality physical education programs are needed to increase the physical competence, health-related fitness, self-responsibility, and enjoyment of physical activity for all students so that they can be physically active for a lifetime. Physical education programs can only provide these benefits if they are well-planned and well-implemented.

Improved Physical Fitness

Improves children's muscular strength, flexibility, muscular endurance, body composition and cardiovascular endurance

Skill Development

Develops motor skills, which allow for safe, successful and satisfying participation in physical activities

Regular, Healthful Physical Activity

Provides a wide-range of developmentally appropriate activities for all children

Support of Other Subject Areas

Reinforces knowledge learned across the curriculum. Serves as a lab for application of content in science, math and social studies.

Self Discipline

Facilitates development of student responsibility for health and fitness

Improved Judgment

Quality physical education can influence moral development. Students have the opportunity to assume leadership, cooperate with others; question actions and regulations and accept responsibility for their own behavior.

Stress Reduction

Physical activity becomes an outlet for releasing tension and anxiety, and facilitates emotional stability and resilience.

Strengthened Peer Relationships

Physical education can be a major force in helping children socialize with others successfully and provides opportunities to learn positive people skills. Especially during late childhood and adolescence, being able to participate in dances, games and sports is an important part of peer culture.

Improved Self-Confidence and Self-Esteem

Physical education instills a stronger sense of self-worth in children based on their mastery of skills and concepts in physical activity. They can become more confident, assertive, independent and self-controlled.

Experience Setting Goals

Gives children the opportunity to set and strive for personal, achievable goals

Quality Physical Education

Every student in our nation's schools, from PK-12, should have the opportunity to participate in quality physical education. Why is quality physical education important? Quality physical education programs help all students develop health-related fitness, physical competence, cognitive understanding, and positive attitudes about physical activity, so that they can adopt healthy and physically active lifestyles. Quality physical education programs provide learning experiences that improve mental alertness, academic performance, and readiness and enthusiasm for learning in our nations' youth.

Conclusion

Quality physical education programs are needed to increase the physical competence, health-related fitness, self-responsibility, and enjoyment of physical activity for all students so that they can

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Importance Of Yoga In Our Day To Day Life

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Abstract

Historically yoga was more than just a method of teaching; it was a way of life. You dedicated yourself to a lifestyle and culture that surpassed meditation techniques and included healthy eating habits, bathing habits, social interaction and work. Its philosophy is rooted in a physical culture of health and well-being that is still emphasised today at yoga retreats and explains why over 15 million people in the world now practise this ancient tradition. Yoga is a group of physical, mental, and spiritual practices or disciplines which originated in ancient India. There is a broad variety of Yoga schools, practices, and goals in Hinduism, Buddhism, and Jainism. Among the most well-known types of yoga are Hatha yoga and Rāja yoga. Every yoga asana (pose) has a different name and includes standing postures, seated twists, backbends, arm balances, inversions and core holds. The downward facing dog for example, is in itself said to calm the brain, energise the body, improve digestion, strengthen arms and legs and be therapeutic for high blood pressure. Whilst these benefits come as a given with most postures, the practise of yoga as a whole provides many more benefits than you might think. The beauty of yoga is that it can be practiced pretty much anywhere, on your own or with other yoga enthusiasts. If you have been inspired to give yoga a go there is no better place to try it than on an amazing yoga holiday with destinations spanning from Thailand to St Lucia. Here we share our top 10 yoga retreats where you can enjoy a luxurious healthy holiday whilst profiting from the extraordinary health and fitness benefits yoga has to offer.

Key words: Yoga, daily life.

Introduction

Yoga is a group of physical, mental, and spiritual practices or disciplines which originated in ancient India. There is a broad variety of Yoga schools, practices, and goals in Hinduism, Buddhism, and Jainism. Among the most well-known types of yoga are Hatha yoga and Rāja yoga.

The origins of yoga have been speculated to date back to pre-Vedic Indian traditions, it is mentioned in the Rigveda, but most likely developed around the sixth and fifth centuries BCE, in ancient India's ascetic and śramaṇa movements. The chronology of earliest texts describing yoga-practices is unclear, varyingly credited to Hindu Upanishads. The *Yoga Sutras of Patanjali* date from the first half of the 1st millennium CE, but only gained prominence in the West in the 20th century. Hatha yoga texts emerged around the 11th century with origins in tantra.

Yoga gurus from India later introduced yoga to the west, following the success of Swami Vivekananda in the late 19th and early 20th century. In the 1980s, yoga became popular as a system of physical exercise across the Western world. Yoga in Indian traditions, however, is more than physical exercise; it has a meditative and spiritual core. One of the six major orthodox schools of Hinduism is also called Yoga, which has its own epistemology and metaphysics, and is closely related to Hindu Samkhya philosophy.

Many studies have tried to determine the effectiveness of yoga as a complementary intervention for cancer, schizophrenia, asthma, and heart disease. The results of these studies have been mixed and inconclusive, with cancer studies suggesting none to unclear effectiveness, and others suggesting yoga may reduce risk factors and aid in a patient's psychological healing process.

8 Reasons why Yoga is so good for us:

Lowens stress and improves your mood

Some yoga methods use specific meditation techniques, which focus the mind on your breathing to quieten the constant 'mind chatter', relieves stress and allow you to feel relaxed. Practising these breathing techniques on a yoga and meditation retreat can also boost oxygen levels to the brain, leaving you feeling happier and more content with everyday life.

Boosts confidence

Aside from the uplifting spiritual values, the act of meditation can actually boost your confidence. The process works by releasing tension from your mind, so that you can feel confident about your physical body. Without any forms of anxiety, you are able to establish an internal

connection with yourself. This is consequently reflected in your perception of others and will help to better your relationships by improving compassion and awareness.

Lowers the risk of injury

Exercise such as running is usually a series of rapid, forceful movements, which means that effort is at a maximum and there is a higher risk of injury and increased muscle tension. Often, strenuous exercise also engages an imbalance of opposing muscle groups, whereas yoga concentrates on balancing this activity. Unite your body and mind on a [yoga and fitness holiday](#) which will allow to combine more intense workouts with low-impact yoga.

Increases flexibility

People often say that they are not flexible enough to do yoga. The truth is, it doesn't matter how tight your muscles are as yoga asanas works by safely stretching your muscles and help you to practise it further. Moreover, yoga also stretches other soft tissue in the body such as ligaments and tendons, increasing the range of motion in the joints and allowing you to move around more freely.

Improves muscle tone and strength

Many yoga asanas have a profound effect on your upper body strength, such as the downward and upward dog, whilst the plank focuses on your core. Likewise, standing poses strengthen your upper leg muscles and lower back. Essentially any pose will strengthen an area of the body if it is practised in the right way, without putting too much stress on specific muscle groups.

Improves your posture

By practising yoga you maintain a healthier weight, become more flexible and improve your muscle tone and strength. You will find that your posture will greatly improve because of this. Your abdominals and back muscles can now fully support your weight and you will be able to sit and stand tall, preventing niggling injuries, aches and pains.

The beauty of yoga is that it can be practiced pretty much anywhere, on your own or with other yoga enthusiasts. If you have been inspired to give yoga a go there is no better place to try it than on an amazing [yoga holiday](#) with destinations spanning from Thailand to St Lucia. Here we share our top 10 yoga retreats where you can enjoy a luxurious [healthy holiday](#) whilst profiting from the extraordinary health and fitness benefits yoga has to offer.

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The beauty of yoga is that it can be practiced pretty much anywhere, on your own or with other yoga enthusiasts. If you have been inspired to give yoga a go there is no better place to try it than on an amazing [yoga holiday](#) with destinations spanning from Thailand to St Lucia. Here we share our top 10 yoga retreats where you can enjoy a luxurious [healthy holiday](#) whilst profiting from the extraordinary health and fitness benefits yoga has to offer.

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Aims and Objectives of Sports Training

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Abstract

*The Sports training is understood as a process of systematic development of each component in dependence on the duration of preparation which leads to achieving maximum efficiency in senior age within the selected sports discipline. In the broad sense sports training is the entire systematic process of preparation of athletes for highest levels of athletic performance. It comprises all those learning influences and processes, including self tuition by the athlete, which are aimed at improving performance. All activities which are part of human behavior were subject to a long-term development. Let us take throwing, which is regarded a basic motor activity, as an example. In the deep past, throwing was necessary for feeding and defense. At present, throwing has lost its importance as one of the above mentioned activities but it is involved in different sports to a great extent (e.g. athletics, handball, baseball, etc.). The task of a prehistoric hunter was to hit the target precisely to get food. The aim of a present-day athlete is to throw the javelin as far as possible. The result of the activity in both examples can be considered a performance. **Performance** is understood as an extent to which motor task is accomplished. With the prehistoric hunter, performance is evaluated dichotomically: hitting the target or missing and it is not restricted by any rules. In the case of the athlete, performance is evaluated following rules of the sports discipline which were set in advance, it is expressed by the length of the throw and is understood as a **sports performance**. An ability to achieve a given performance repeatedly is referred to as **efficiency**.*

Key words: Sports Training, Need, Importance.

Introduction

The Sports training is understood as a process of systematic development of each component in dependence on the duration of preparation which leads to achieving maximum efficiency in senior age within the selected sports discipline.

In the broad sense sports training is the entire systematic process of preparation of athletes for highest levels of athletic performance. It comprises all those learning influences and processes, including self tuition by the athlete, which are aimed at improving performance.

All activities which are part of human behavior were subject to a long-term development. Let us take throwing, which is regarded a basic motor activity, as an example. In the deep past, throwing was necessary for feeding and defense. At present, throwing has lost its importance as one of the above mentioned activities but it is involved in different sports to a great extent (e.g. athletics, handball, baseball, etc.). The task of a prehistoric hunter was to hit the target precisely to get food. The aim of a present-day athlete is to throw the javelin as far as possible. The result of the activity in both examples can be considered a performance. **Performance** is understood as an extent to which motor task is accomplished. With the prehistoric hunter, performance is evaluated dichotomically: hitting the target or missing and it is not restricted by any rules. In the case of the athlete, performance is evaluated following rules of the sports discipline which were set in advance, it is expressed by the length of the throw and is understood as a **sports performance**. An ability to achieve a given performance repeatedly is referred to as **efficiency**.

Aims and Objectives

The following are the Aims and Objectives of Sports Training:

- Develop skills and fitness specific to a particular sport
- Appreciate and be able to execute strategic play
- Participate at a level appropriate to one's developmental stage
- Provide reasonable leadership
- Work effectively within a group toward common goals
- Appreciate the rituals and conventions that give particular sports their unique meanings.
- Develop the capacity to make reasoned decisions about sport issues
- Talent Scouting at micro level & Nurturing talent towards excellence
- Training & International Exposure
- Support Training with Scientific & Sports Equipment and scientific personnel
- Monitor and enhance Performance with a scientific evaluation system

- Training and preparation of National teams
- Sports Infrastructure Development & Maintenance
- Maintenance and up gradation of 4 stadia complexes and a shooting range in Delhi
- To produce coaches and physical educationists of high caliber in different disciplines of sports to broad base sports .
- A new powerful way to use yourself as an instrument of influence and change; a way to grow in your presence as a person and in confidence
- How to acquire knowledge, experience and method in order to be effective in human relationships as a consultant, coach or an employee
- To develop awareness of power and relational issues in groups and organizations
- A way to use process in order to intervene in a system, understanding smaller, larger and hierarchical systems in process
- How to develop confidence and a better understanding of how to deal with conflict situations creatively and with clarity
- To develop intervention and collaboration skills increasing leadership capacity & skills
- To raise awareness for change and learning processes in organizations

Conclusion

Sports training focuses on reaching maximum efficiency in motor abilities connected to a certain sports discipline. Supposed performance depends on motor ability and motor skill which are closely related to the sports discipline.

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Statistical Interpretation For Physical Education And Sports

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Abstract

The statistical interpretation is useful tool for the scientist. It is much more useful tool for exploratory analysis than might possibly be imagined. Most physical education and sports researches are based on tightly tentative theoretical ideas. The variables that should be controlled in the analysis or even the priorities and sequence of analysis steps that should be followed are neither precise nor predetermine. Researchers are generally surprised at the complexity of data analysis as soon as one introduces a set of variables. It is in these instances especially that a Knowledge of the statistical methods becomes an invaluable tool enabling the researcher to disentangle highly complex inter relationship.

Keywords: Statistics, research, interpretation, physical education and sports.

Introduction:

Need And Importance

With the passage of time, the resistance to orthodox explanations mounted and people with scientific bent of mind started putting greater reliance on facts. The concept of statistical interpretation thus developed into a scientific investigation. The lack of systematic scientific observations and objective methodology greatly restricted the progress of research on the lines of scientific enquiry. Statistical considerations enter only into the analysis stage of the research process, after the data have been collected, and near the point in time when the initial plans for analysis are made and a sample is to be drawn. But this does not mean that a researcher can plan and carry out this entire research without any knowledge of statistics for analysis. If he did this, the results of costly research project would probably be disappointing if not useless. Evidently, problems that will be encountered in analysis and interpretation have to be anticipated at every stage in the research process, and in this sense statistical methods may be involved throughout.

Functions :

1. It produces new knowledge.
2. It enables discovery of new application for old knowledge
3. It helps in the development of the researcher intellectually and professionally. It is a continuous process.
4. It leads to better teaching as new knowledge is integrated into teaching programme.
5. It bring prestige to the person and the institution.
6. It enables an institution to attract better faculty, researchers and graduate students.
7. It enables finding of solutions to problems and to his environment and achieve his purposes.
8. It promotes progress of the society.

Characteristics Features :

1. Logical

Drawing inferences or generalizations must be logic which means a method that is used in for reaching.

2. Objective

Observing true picture a phenomenon without being affected by observers own opinion is termed as 'objective'. In other words, objectively means knowing reality. Objectivity is fundamental to all sciences of research and is crucial for verification. The criteria of objectivity is that all researchers should arrive at the same conclusion about the phenomenon on which they are pursuing research.

3. Reliability And Validity

Truth is the basic cannon of statistics

4. Verifiability

The conclusions drawn through means of is subject to the quality of verification. So verifiability pre supposes the phenomenon of statistics which being observed and measured.

5. Accuracy

The accuracy is sensitive point to meet the purpose, in pragmatic manner, of the study for which it is undertaken. In other words, the data are gathered, recorded and analyzed with as complete accuracy as possible by using standardized tools.

6. Impartiality

The problem of impartiality is a part of the problem of objectivity. Knowing reality involves consideration of the correct methods dealing with logic. Bias leads to wrong information which affects the objective of the study.

7. Scientific Integrity

Modern culture is over-ridden with scientific attitude and scientific method of approach. With the fast development of sciences, the science of research has become a reliable instrument for the advancement of knowledge as well as material gains.

8. Recording And Reporting

Every term is carefully defined, every procedure is described in detail, every limiting factor is recognized, every reference is carefully documented and every result is objectively recorded. All conclusions and generalizations are cautiously arrived at which the due consideration for all of the limitations of methodology, data collected, etc. by recording it becomes a source of investigation for further research.

Qualities:

- | | |
|---|---------------------------------------|
| 1. Scientific attitude with reflective thinking | 5. Knowledge of the study |
| 2. Imagination and insight | 6. Knowledge of technique of research |
| 3. Perseverance | 7. Unbiased attitude |
| 4. Clarity of thinking | 8. Personal taste in the study |

Application:

1. The concept of research took the shape of social scientific investigation during the medieval times and developed into a full body of intellectual exercises only in the modern age.
2. Manipulation of things, concepts or symbols for the purpose of generalizing to extend, correct or verify knowledge, whether that knowledge aids in construction of theory or in the practice of an art.
3. To know how the things are and how they respond under specific conditions, the scientists put them handling, called it 'manipulation.' For example, the physical deals with the abstract notions of spheres, circles, pluses, minusses, etc.
4. Once the manipulation of theory is done, the purpose being to arrive at statements of generalities. In other words, the controlled things would result in propositions or conclusions which may vary in their degree of generalities. Generality is one of the basic objective of research.
5. The new generalization gets through manipulation of concepts or symbols which disagree with old ones, in the sense the new generalization derived in the process of research extends and verifies knowledge.
6. New knowledge is derived from manipulation and generalization have two uses namely (a) theoretical and (b) practical.

Conclusion:

The prestige of much is great and is equally emphasized on the researcher to challenge the problem that needs to be solved even though the situation is far beyond the scope of research, some people think the research is a waste of time, effort and money; and further think that more pure research is needed for practical values. Personal opinion guided by prejudices or dogmatism may be conceded in nature of problem but can be solved only on the basis of research evidence. The researcher has to implement more effectively his value judgement for the benefit of much to the society. Then, the question arises what is the benefit of research to the researchers? One can perhaps say that a researcher enjoy the intellectual freedom and independence thinking, and can have a rewarding experiences. And further more, it is he (researcher) as advisor has to take the society towards right path of development.

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भारतीय स्कूली बच्चों के लिए संतुलित आहार**प्रा. डॉ. कैलास के. पवार**

शा. शिक्षण संचालक

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संतुलित आहार (Balance)

संतुलित आहार सभी अनिवार्य पोषकों को समुचित मात्रा में प्रदान करने के साथ ही शरीर की उर्जा की आवश्यकता की आपूर्ति के लिये पर्याप्त कैलोरी भी प्रदान करता है।

जिस भोजन में अच्छे स्वास्थ्य के लिये चार भिन्न समूहों के आहार संतुलित रूप से शामिल हो उसे संतुलित आहार की तरह परिभाषित किया जा सकता है,

1. मांस तथा मांस विकल्प समूह

मांस तथा मांस विकल्प समूह में मांस, मुर्गा, मछली, गिरिया, फलिया जैसे मटर एवं बीन्स शामिल हैं। इस समूह का मुख्य पोषक तत्व प्रोटीन है। इस समूह के आहारों में कुछ चर्बी/वसा तथा कार्बोहाइड्रेट हो सकते हैं। यह लौह, तथा अन्य खनिजों के साथ विटामिनों का अच्छा स्रोत है। मांस तथा उनके विकल्प समूह के आहार हमें उर्जा देते हैं और रक्त, पेशियां तथा शरीर के अन्य अंगों को बनाने में सहायता करते हैं।

2. दूध तथा दूध के उत्पाद समूह-

दूध तथा दूध के उत्पादों में दूध किसी भी रूप में शामिल है-वसारहित, कम वसा वाला, दही, गैर वसा का सूखा दूध। आइसक्रीम, चीज, पनीर भी इसी समूह में आते हैं। इस समूह के उत्पाद मजबूत अस्थियां, दांत तथा पेशियां बनाने में मदद करते हैं। या समूह कैल्शियम का मुख्य स्रोत है तथा प्रोटीन एवं विटामिनों का भी अच्छा स्रोत है। इस समूह द्वारा चर्बी और जल की आपूर्ति भी होती है।

3. फल तथा सब्जियों को समूह-

फल और सब्जियों का समूह कार्बोहाइड्रेट प्रदान करता है तथा अनेक विटामिनों और खनिजों का अच्छा स्रोत है। यह हमारे भोजन में पानी भी जोड़ता है। इस समूह के आहारों में अत्यंत अधिक कार्बोहाइड्रेट तथा बहुत कम चर्बी होती है, अतः अपने नाश्ते (स्नैक्स) आप इस सबसे अधिक स्वास्थ्य वाले समूह से चुनिये।

4. चर्बी तथा मिष्ठान्न समूह-

ब्रेड तथा अन्न समूह में अनाज जैसे गेहूँ, चावल और ओट के बने हुये उत्पाद आते हैं। इन उत्पादों में ब्रेड, बिस्कुट, कॉर्नमील, जई, मेकरोनी, नूडल्स तथा चावल शामिल हैं। साबुत अनाज या समृद्ध किये अनाज के उत्पाद भी विटामिनों, लौह तथा अन्य खनिजों के अच्छे स्रोत हैं। ये उत्पाद हमारे आहार में कार्बोहाइड्रेट तथा प्रोटीन भी जोड़ते हैं।

5. चर्बी तथा मिष्ठान्न समूह-

अच्छे स्वास्थ्य के लिये चर्बी और मिष्ठान्न समूह की मात्रा को सिमित रखना चाहिये। चर्बी तथा मिष्ठान्न समूह में मक्खन, मार्जरीन, सलाद ड्रेसिंग तथा अन्य चर्बियां और तेल, केन्डी, चिनी, जैम, जेली, शर्ब, अन्य मिठे पेय, मिठाईयाँ आदि आहार शामिल हैं। इसी समूह में मैदे से बनी ब्रेड और पेस्ट्री भी शामिल हैं। चर्बी तथा मिष्ठान्न समूह अधिकांशतः रिकत कैलोरी ही देता है। इस समूह के आहारों में पोषक तत्वों की मात्रा कम होती है। किंतु इस समूह के कई आहारों में कैलोरी की मात्रा काफी अधिक होती है।

सभी समूहों के पोषक तत्वों का प्रतिनिधित्व इस अनुपात में होना चाहिये कि सभी पोषकों की आवश्यकताओं की आपूर्ति समुचित प्रकार से हो जाये। कुछ अतिरिक्त पोषक हिफाजत से तनाव की स्थितियों में प्रयोग में आने चाहिये अर्थात् संतुलित आहार के घटकों में प्रोटीन, कार्बोहाइड्रेट, चर्बी, खनिज, विटामिन तथा तर पदार्थ शामिल होंगे।

एक संतुलित आहार में रेशे भी होने चाहिये। यह आँतों के काम को नियंत्रित करते हैं, पेट भरा होने की अनुभूति पैदा करते हैं तथा कोलोन के कैंसर का प्रतिरोध करते हैं। पोषकों और रेशों के कार्य तथा महत्व की व्याख्या पिछले अध्यायों में की जा चुकी है।

बड़ी मात्रा में चीन, नमक तथा सैचुरेटेड वसा से परहेज करना चाहिये। संतुलित आहार की कुंजी हमारे आहार की विविधता तथा जो भी हम खाते हैं उसमें संयम है। संतुलित आहार शारीरिक तथा मानसिक - भावत्मक फिटनेस तथा उसके रख रखाव का एक महत्वपूर्ण अंग है। खाना न खाना या अधिक कैलोरी वाले खानों को उसका स्थानापन्न बनाना, एक समझदारी वाले खानों की जगह कम पौष्टिक स्नैक की चीजे खाना, हमें कम उर्जा या धैर्य का एहसास करायेगा।

योग प्राणायामाचे क्रिडाक्षेत्रातील फायदे

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1) गोषवारा

भारतीय संस्कृती आणि योग याचा अनंत काळापासुनचा इतिहास आहे. कारण योग हा संपूर्ण शरीर आणि मन स्वस्थ ठेवण्याचा सर्वोत्तम उपाय सांगतो. आणि याचे महत्व पटल्यामुळे वेळोवेळी अनेक संस्था, अनेक शाळा, महाविद्यालये स्थापन झाले आहेत.

योगामध्ये प्रामुख्याने प्राणायाम हा अत्यंत चांगला दुवा मानला गेला जो तुमच्या श्वासोच्छ्वासाच्या प्रक्रियेवर नियंत्रण ठेवून मन शांत ठेवते जर तुम्ही खेळाडू असाल, त्यातही स्पर्धात्मक खेळाडू, तर जखमा, स्नायुंची दुखापत हे त्यामुळे होतेच. पण जर प्राणायाम व योगाचा तुमच्या रोजच्या सरावामध्ये सहभाग असेल, तर तुम्हाला ह्या गोष्टीपासुन दूर ठेवण्याला मदत होते. आपण केवळ जलतरण ह्या खेळाबाबत विचार केला असता, संपूर्ण खेळ हा श्वासोच्छ्वासाच्या प्रक्रियेवर अवलंबून आहे शिवाय हातांपायाची योग्य सांगड नसल्यास, स्नायू दुखावणेहि मुख्य समस्या होवून बसते. कारण जर खेळावर संपुर्ण लक्ष्य केंद्रित नसेल, मनाची चल बिचल अवस्था, असेल, तर खेळाडू आत्मविश्वास हरवून बसतो. पण जर दैनंदिनीमध्ये जलतरणाच्या सरावासोबत प्राणायाम पण होत असेल तर श्वासोच्छ्वास नियंत्रणात येतो. संपूर्ण मन शांत होवून एका तालात जेव्हा तूमचा श्वास चालतुंसेव्हा खेळाडू संपूर्ण लक्ष्य व उद्दिष्ट आपल्या खेळावर केंद्रित करतो. ज्यामुळे त्याचा खेळ सुधारून त्याचा आत्मविश्वास वाढतो शिवाय प्राणायामामुळे, मेंदूबरोबर, स्नायू, अस्थीबंध, तणावग्रस्त स्थितीतून मोकळे होवून विकसीत होण्यास सुरुवात होते त्यामुळेच प्राणायाम हा रोजच्या दैनंदिनीचा महत्वाचा भाग असलाच पाहिजे. व कार्यप्रदर्शनात सुधारणा करून उच्च स्तरावर आपली प्रतिमा नेता आली पाहिजे.

२) परिचय

संपूर्ण जगातील विशेषत अनेक परदेशी राष्ट्रांमध्ये विविध स्पर्धात्मक खेळांच्या सरावामध्ये योग व प्राणायाम समाविष्ट झाल्याचे नव्हे त्याच्या सरावाचा महत्वपूर्ण घटक बनल्याचे मागील काही शतकापूर्वीपासून आढळले आहे त्यांनी योग हे प्रगतीशील प्रशिक्षण तंत्र म्हणून वापरले आहे आपल्या भारत देशातील ह्या अत्यंत प्राचीन तंत्राचा संपूर्ण जग प्रगत तंत्र म्हणुन स्विकार करित आहे. योग हे प्रतिबंधात्मक (Preventive) तसेच उपचारात्मक (Therapeutic) ह्या दोन्ही प्रकारात मोडणारे आहे. तसेच ते शारीरिक व मानसिक दोन्ही फायदे दर्शवितात. योग हा वेगळ्या प्रकारचा व्यायामाचा प्रकार असुन तो शरीरात कुठलाही ताण उत्पन्न न करता, तसेच शरीराचे संतुलनसाधुन शरीरात उर्जा निर्माण करतात. ज्यामुळे आपण आपल्या खेळा प्रकारात विशेष प्राविण्य दाखविण्यास समर्थ बनतो. आपल्या शरीराची विशिष्ट रचना व्यक्तिपरत्वे थोडी फार वेगळी असू शकते. जसे कुणी उंच, ठेंगणा, बारीक, लठ्ठ, कुणी वाकून चालणारा, तर कुणी ताठ चालणारा इ. ज्याला आपण Posture म्हणू तर ते ज्या शारीरिक स्थितीत आहेत. ती स्थिती व श्वासाची एकतालता याचा समन्वय साधण्याचे काम प्राणायाम करते, तर शरीराचे वेगवेगळे भाग, जसे मान, पाठ, खांदा, पोटाचे स्नायू, उदर, मांडी, नितंबपेशी, पाय, तळपाय, हात, मनगट समेत सर्व अवयवांचे प्रमुख मांसपेशीगटांचे व्यवस्थित संतुलन ठेवतात, आणि ह्या व शरीरातील सर्व घटकांना पूरक ऑक्सीजन मिळेल ह्याची काळजी घेतात. योग शरीरातील विविध मांसपेशींच्या गटांचे संकोचन आणि निरंतरता वाढवते तसेच शरीर लवचिक बनवायला मदत करते कारण शरीर लवचिक असेल तरच सांधे जुळवल्या जावून खेळाडूंना कमी दुखापतींना सामोरा जावं लागेल आणि प्राणायामानी मनाची कार्यक्षमता वाढविली जाईल, ज्यामुळे खेळाडू श्वासावर नियंत्रण मिळवून खेळावर लक्ष्य केंद्रित करेल.

जेव्हा एखादा खेळाडू आपल्या देशाच प्रतिनिधित्व करतो, त्यावेळी देशातील लाखो जनता त्याच्याकडून विजयाची अपेक्षा बाळगून असतात. अशा स्थितीत त्याचे मन तणावग्रस्त स्थितीत येते, व त्याची कार्यक्षमता मंदावते. पण त्यावेळी प्रशिक्षक त्याला प्राणायामाच्या मदतीने चित्त स्थिर ठेवण्याला व उदराच्या खोल श्वासांवर नियंत्रण मिळवून दयायला मदत करू शकतो. ज्यामुळे ताण दूर होवून आपली क्षमता जगाला दाखवू शकेल.

अ) तणावमुक्त मन

तणावमुक्त मनाची क्षमता हा प्राणायामाने वाढते. श्वासांवर नियंत्रण मिळविण्यासाठी रोज प्राणायाम आवश्यक आहे आणि त्यामुळे एकाग्रता वाढते. एकाग्रता वाढल्याने प्रत्येक परिस्थितीचे मुल्यामापन करून त्याप्रमाणे निर्णय घेण्याची क्षमता येते. विचारांची स्पष्टता आणि निर्णय विचारपूर्वक घेता येणे हेच क्रिडा क्षेत्रात अत्यंत महत्वाचे आहे. कुठल्याही बिकट परिस्थितीत अथवा अत्यंत आनंदाच्या स्थितीत उत्तेजन पातळी वाढू न देता मन नियंत्रणात ठेवण्याचे काम प्राणायाम करते.

ब) प्राणायाम – मानसिक सराव

- चिंता व तणाव दूर करते.
- मेंदूतील चिडचिडेपणाचे संप्रेरके घालवून शांत होण्याचे संप्रेरके वाढविते.
- रक्तदाब नियंत्रणात ठेवते, तसेच हृदयचे ठोके नियंत्रणात आणते.
- रोगप्रतिकारक शक्ति वाढविते.

वरील सर्व बाबींचा चांगला परिणाम म्हणजे, शांत झोप, चांगली विश्रांती आणि दबावाच्या स्थितीत शांतपणे, स्पष्टपणे विचार करण्याची क्षमता वाढविते.

३) खेळातील योगाचे उद्दीष्ट

आरोग्य , ह्या संज्ञेमध्ये शारीरिक स्वास्थ्य आणि भावनात्मक स्थिरता ह्या दोन गोष्टींचा समावेश होतो. परंतु प्रत्येक व्यक्तीला ह्या दोन भिन्न संज्ञा योगा व शारीरिक शिक्षण ह्या माध्यमातून एकाच व्यासपीठावर आणते. जसे शारीरिक स्वास्थ्य हि विशिष्ट संज्ञा आहे. तर आरोग्य हि सामान्य संज्ञा आहे. शारीरिक स्वास्थ्य साठी विशिष्ट वेळी विशिष्ट प्रकारचा व्यायाम प्रकार करण्याची गरज असते. आरोग्य आणि शारीरिक स्वास्थ्य हे स्थिर नाहीत. शारीरिक तंदुरुस्ती असल्यास मन:स्वास्थ्य राहिलच असे नाही. म्हणून हे सदैव बदलते स्वरूपात असतात. आपल्या शारीरिक रचनेनुसार काळजीपूर्वक मिळालेली शारीरिक क्रिया म्हणजे “व्यायाम” होय.

४) खेळासाठी आवश्यक - आरोग्य आणि योगा

आतापर्यंत हे लक्षात आले की, आरोग्य आणि योग याचा परस्परसंबंध एकमेकांना पूरक आहे. योग आरोग्याच्या दृष्टीने निवारक आणि उपचारात्मक स्वरूपात आहे. परंतु योगामध्ये जे अनेक प्रकार आहेत, त्यात आपण हठ योग चा विचार केला तर, ते संपूर्ण शरीर आतून व बाहेरून स्वस्थ बनविते. कारण ते स्नायूंना बळकटी देवून त्यांना लवचिक बनविते. पाठीचा कणा मजबूत बनतो, त्यातून निघणा-या छोट्या- छोट्या नसांना ऑक्सीजन पूरविते. खुप जुने दुखणे सुधारायला मदत करते. गुडघेदुखी खांदयाचे, मानेचे दुखणे, स्वेबॅक आणि स्कॉलिओसीस सारख्या स्नायू-कंकाल ची स्थिती सुधारते. पर्यायाने सहनशक्ती वाढविते. एंडोक्राईन ग्रंथी उत्तेजित करते. पाचन आणि उन्मुलन सुधारते, परिसंवाद वाढते, शरीरातील तीव्र ताणनाशक पद्धती दूर करते. एकाग्रता वाढवायला मदत करते. शिवाय डॉक्टर सुध्दा ह्या योगाचे महत्व ओळखून आहेत. विशेषतः सामान्य असे आजार ते गंभीर आजारापर्यंत ह्याचा उपयोग होतो. जसे गठीया, आर्टिरिओस्क्लेरोसिस, मधुमेह, एड्स, दमा आणि लठ्ठपणा. शरीर आतून निरोगी असेल तर त्याचे तेज चेह-यावर दिसते.

५) उत्तम आरोग्यासाठी योग- एक वरदान

- पॅरासिम्पेथेटिक नर्वस सिस्टम : जो व्यक्ती नेहमी तणावग्रस्ता स्थितीत असतो, त्याला ह्या परिस्थितीतून जावे लागते. परंतु योगामुळे स्थिर स्वायत्त तांत्रिक प्रणाली वाढून मानसिक समतोलता राहते.
- स्पंदन दर (Pulse rate) कमी होतो.
- रक्तदाब कमी होतो (हायपो रिएक्टरसाठी विशेष महत्वाचा)
- श्वसन दर (Respiratory rate) कमी होतो.
- गेल्व्हॅनिक त्वचा प्रतिसाद वाढविते (GSR)

- ईईजी- अल्फा लाटा वाढतात (ध्यानाकर्षणाच्या विविध अवस्थांमध्ये थिटा, डेल्टा आणि बिटा लाटा देखिल वाढतात)
- हृदयाची कार्यक्षमता वाढविते.
- श्वसनाची कार्यक्षमता वाढविते.
- गॅस्ट्रोइंटेस्टिनेलफंक्शन सामान्य होते.
- उत्सर्जित कार्य सुधारतात.
- स्नायु- कंकाल लवचिकता आणि गतिमान संयुक्तश्रेणी.
- इंडोक्राइनग्रंथीचे कार्य सुधारते.
- सामर्थ्य आणि लवचिकता वाढवते.
- सहनशक्ती वाढवते.
- उर्जा पातळी वाढवते.
- वजन सामान्य ठेवते.
- रोगप्रतिकारक शक्ति वाढवते.
- झोपेचा त्रास दूर होतो.

खेळाडूच्या शरीराला मजबूत बनवून त्याची लवचिकता वाढवते. त्यामुळे शारीरिक संतुलन बनून राहते. त्याचप्रमाणे मनाला सुध्दा मजबूत बनवून खच्चीकरण टाळता येते. जेणे करुन अपयश पचवून पून्हा खंबीरपणे खेळाडूला उभा होण्यास मदत होते.

६) योग सुधारतो

- इष्टतम आरोग्यासाठी परिसंचरण, मसाज अंतर्गत अवयव आणि ग्रंथी सुधारते.
- प्राणायाम LYMPH फ्लुइडचा प्रसार करते.
- योगाचा श्वास वाढत जातो.

७) निष्कर्ष

उपरोक्त विषयावरून ह्या निष्कर्षाप्रत पोहोचलो की खेळामध्ये योग हा अत्यंत महत्वाचा घटक मानल्या जातो. जर आपण जलतरण ह्या क्रिडाप्रकाराबद्दल बोलतो तर, दररोजच्या योगप्राणायामाच्या सरावाने प्रभावीपणे व परिणामकारकतेने खेळण्यासाठी आम्ही प्रगत होत जातो, कार्यप्रदर्शन सुधारत जाते. एखादा चलबिचल व अशांत स्वभावाचा खेळाडू पण त्याच्या गुणवत्तेवर विश्वास असेल, तर तो प्राणायामाच्या मदतीने, शांत स्थिरचित्ताने, ताण तणावात व अत्यंत प्रतिकूल परिस्थितीत देखिल उत्तम निर्णय घेण्याची क्षमता ठेवतो. म्हणून क्रिडाक्षेत्रात एकाग्रता व मनाचे नियंत्रण ठेवण्यासाठी योगप्राणायाम महत्वाची भूमिका बजावतो.

८) संदर्भ

1. रॉबर्टसन रॉबर्ट जे - दि इफेक्ट ऑफ स्विमिंग प्रोग्राम ऑन दि कार्डियोरेस्पिरटरी फिटनेस ऑन मेन कॉलेज स्टुडन्स कप्लिटेड रिसर्च इन हेल्थ फिजिकल एज्युकेशन अँड रिक्रेशन १९६४.(व्हॉल्युम १०)
2. उप्पल ए.के. - कम्पेरेटिव्ह इफेक्ट ऑफ डिफरन्ट फ्रिक्वेन्सीज ऑफ एन्ड्युन्स ट्रेनिंग ऑन कार्डियो रिस्पेक्टरी एन्ड्युन्स फिजिकल अँड योगा अँड स्पिड जरनल. एन.एस.एन.आय. मोतीबाग, पटियाला (एप्रिल १९८४)
3. जैक्सन ग्रे आर, दि इफेक्ट ऑफ ट्रेनिंग अँड दि डिफरंट हार्ट लेवल अपॉन कार्डियो व्हॅस्कुलर फिटनेस. कम्प्लिटेड रिसर्च इन फिजिकल एज्युकेशन अँड रिक्रेशन.
4. डॉ. एच. आर.नागेद्र, द न्यू लाईट फॉर अस्थमॅटीक, विवेकानंदकेंद्र बंगलोर- 1986.
5. एम.पी.मेनन, दमा एक वैद्यकीय कोडे, नॅशनल बुक ट्रस्ट, इंडिया, ए. ५ ग्रीन पार्क, नवी दिल्ली- १९९५.
6. जी.ए.मक पर्टलाल, फिटनेस फॉर स्पोर्ट्स, लंडन जी वेल अँड सन्स -1957.
7. वॉश जॉन, दि फर्स्ट बुक ऑफ फिजिकल फिटनेस (लंडन नन मेल एज्युकेशनल बुक लि. १९६८)

मुलांमधील लठ्ठपणाचे प्रमुख कारण- फास्टफूड

योगिता सं. टिक्कस

R.D.I.K & K.D. College Badnera

प्रस्तावना :-

आपण सुंदर दिसावे असे कोणाला वाटत नाही सुंदर दिसायची इच्छा मनुष्यप्राण्यात पूर्वापार चालत आलेली आहे. सुंदरदिसायचे असेल तर नुसते नाकी डोळी सुंदर असून चालत नाही तर शरीरही सळपातळ असणे म्हणजे उत्तम आरोग्य असणे आवश्यक आहे. 'जितकी कंबरलहान तितके आयुष्य मोठे' अशी म्हण आहे. मात्र आज लठ्ठपणा एक पोषाहार समस्या झाली. पश्चिमात्यदेशात लठ्ठपणाचे प्रमाण जास्त आहे. भारतामध्येदेखील लठ्ठपणाचे प्रमाण सर्वत्र पसरत आहे. आजच्या धकाधकीच्याकाळामध्ये मानव फास्टफूडकडे वळलेला आहे. त्यामुळे अतीकॅलरी आणि पोषक घटकांच्या अभावामुळे लठ्ठपणा वाढलेला आहे असमतोल आहार तसेच व्यायामाचा अभाव असल्यामुळे घेतलेल्या कॅलरीपूर्ण जळत नाही म्हणून कॅलरीचे चरबीत रूपांतर होऊन लठ्ठपणा वाढतो आणि यालठ्ठपणातून अनेकरोगांचा जन्म होतो.

ज्याठिकाणी आपण राहतो त्याठिकाणची भौगोलिक परिस्थिती, हवामान वगैरेगोष्टी बदलत राहतात. त्यानुसार आपला आहारसुद्धा ठरत असतो. साहजिकच आपल्या शरीराला जेवढी अन्नाची गरज असते तेवढेच अन्न आपण ग्रहण करायला पाहिजे. पण होते कायकी, आपण जास्तकॅलरीज अन्न होतो व त्याघेतलेल्या अन्नाचे जेवढ्याप्रमाणात ज्वलन व्हायला पाहिजे त्याप्रमाणात होत नसल्यामुळे लठ्ठपणा वाढत जातो. जगभरात सर्वांनाच भेडसावणाऱ्या लठ्ठपणाच्या समस्येच्या निराकरणासाठी आहारापेक्षा विचारांचे आदानप्रदान महत्त्वाचे असते असे संशोधनात दिसून आले आहे

“अशाप्रकारचे अन्नपदार्थ जे कमीतकमीवेळात तयार होऊन कमी वेळात वाढल्या जाते, शिवाय चवीला उत्तम असते, त्यांना फास्टफूड म्हणतात”

फास्टफूडचे प्रकार :-

1) भारतीय फास्टफूड :-

पाणीपूरी, चाट, पावभाजी, वडापाव, दाबेली, ब्रेड, बिस्कीट, आलुटिक्की

2) पाश्चात्य फास्टफूड :-

मंचुरियन फास्ता, हॉटडॉग, पिझ्झा, बर्गर, डोनट, केक, पेस्ट्रीजइत्यादी.

फास्टफूडचे वाढते आकर्षण :-

आजच्या धकाधकीच्या जिवनात प्रत्येकाला झटपटया शब्दप्रयोगाने आपल्या मोहात पाडल्याने फास्टफूडने आपल्या आहारात महत्वपूर्ण स्थान मिळविले आहे सध्या आपणांसमोर जे वनाचे इतके पर्याय खुले आहेत की आजची युवापिढी आरोग्याकडे कमी व जिभेचे फाजीललाड पुरविण्याकडे अधिक लक्ष देऊलागली आहे बदलत्या आवडी-निवडी आणि संस्कृतिचा वाढताप्रभाव यामुळे आजची पिढी भारतीय आहाराचे महत्व विसरत चालली आहे विदेशीकंपन्यांनी दूरचित्रवाणीच्या माध्यमातून अत्यंत प्रभावविणे मनाचाठाव पिढीच्या मनात बिंबवणारी जाहिरातबाजीकरून तरूणपिढीच्या मनात कुतहूल निर्माण करण्यात यश मिळविले आहे. विदेशी बनावटीच्या वस्तूचे आकर्षणपूर्वीपासूनच भारतीयांना आहे नविनपिढी सुद्धायाला अपवाद नाही. त्यामुळे विदेशीबनावटीच्या खाद्यपदार्थांच्या आकर्षणातती अडकलीआहे. वेळेचा अभाव हा घटकयासाठी जास्तकारणीभूत आहे आई-वडीलांचे नोकरीनिमित्त बाहेर राहणे त्यातून वेळेची कमतरता, आपल्या देशीपदार्थांच्या तयारीला द्यावा लागणारा वेळ्याचा मेळबसत नाही. आणि मग भुकशमवणारी विविधस्वादाचे पदार्थ घरी चबनवण्याकडे दुर्लक्ष होवू लागलेत्यामुळे झटपट तयार होणारे फास्टफूड सर्वांना जवळचे वाटू लागले.

किशोरावस्थेतील मुले चमचमीत चवीमुळे व फॅशनला बळीपडून फास्टफूडच्या आहारी जातात आजच्या धकाधकीच्या जिवनात मुलांना रोजपहाटे घर सोडावे लागते शिवकणी क्लास, शाळा, महाविद्यालय परत शिकवनी

क्लासकरून सायंकाळी घरी परतने अशी त्यांची दिनचर्या असे. त्यांच्या दैनंदिनजिवनात रोजच त्यांना सकाळी तयार केलेले अन्नखावे लागते. अशावेळी गरमागरम फास्टफूडखाणे त्यांना थंडगार झालेल्या खाण्यापेक्षा जास्त चांगले वाटते आजचीस्त्री ही पुरुषाच्याबरोबरीने काम करते त्यामुळे तिच्याकडे वेळकमी असतो. दिवसभर कामकरून ती मानसिक व शारिरीकरित्या थकलेली असते. त्यामुळे घरीआल्यानंतर वेगवेगळे पदार्थ तयार करण्याची तिची तयारी नसते त्यामुळे काहीवेळा तिलादेखील फास्टफूड हे वरदानच वाटते.

फास्टफूडआणिआहाराचेअसंतुलन:-

आहारात संतुलीत आहारा ऐवजी सध्या फास्टफूड दिसून येत आहे त्यामुळे शरिराला आवश्यक पोषक घटकांची कमतरता आढळून येते त्यामुळे आरोग्यावर विपरित परिणाम होतात. आहाराचे असंतुलन आणि फास्टफूडमुळे अनेक विकारांना सामोरे जावेलागते.

फास्टफूड आणि लठ्ठपणा :-

मुले आजकाल मैदानी खेळखेळत नाही. टी. व्ही. पाहणे, मोबाईल, संगणकावर खेळणे जास्त पसंत करतात. मैदानी खेळखेळण्यास त्यांना घरूनही प्रोत्साहन मिळत नाही. शाळेतही मुले बसुनच असतात घरी आल्यानंतरही बसुनच असतात. अशावेळी त्यांना सतत खायला काहीनाकाही हवे असते. आणि ते पदार्थ असतात फास्टफूड. कारण घरी तयार केलेले पदार्थ मुलांना आवडत नाही याफास्टफूडमुळे कर्बोदके, स्निग्धपदार्थ व कॅलरीचे सेवन केले जाते. यामुळे मुलांमध्ये व तरुणांमध्ये लठ्ठपणा वाढत चालला आहे पूर्वीसारखे शारिरीकश्रम करावे लागत नसल्यामुळे अन्नपचविण्याची क्षमता कमीकमी होत चालली आहे. व्यायामाचा अभाव हेसुद्धा लठ्ठपणाकारणीभूत ठरत आहे थोड्याअंत्तावर जायचे असले तरी त्यासाठी पायीचालत जायची तयारी नसते. अशावेळी पोषक अन्नाऐवजी फास्टफूड खाण्यावर भर असेल तर साहजिकच लठ्ठपणा वाढणारच. कारण फास्टफूड तयार करण्यासाठी बटाटा, तेल, मैदा, साखर, चीझ, बेसन उच्चकॅलरीयुक्त घटकांचा उपयोग केला जातो

फास्टफूडमुळे होणारे दुष्परिणाम:-

- 1) जिवनसत्वांच्या कमतरतेमुळे आतड्यांचे रोग होतात
- 2) फास्टफूडमुळे अध्ययनक्षमता, स्मृतीवर्मेदु चे आरोग्यावर वाईट परिणाम होतात
- 3) फास्टफूडमध्ये असणाऱ्या जास्तप्रमाणात तेलतुपामुळे लठ्ठपणा निर्माण होतो त्यामुळे हृदयासंबंधी विकार होण्याची शक्यता असते.
- 4) फास्टफूडमुळे केवळ शरिरातील चरबीमध्येच वाढ होत नसून यापदार्थांच्या सततच्या सेवनामुळे यकृताची ही हानी होते.
- 5) सततफास्टफूडचे सेवन करणाऱ्यांमध्ये पचनाचे विकार होण्याची शक्यता अधिक असते यामुळे अशापदार्थांतून आलेले तेल पोटातील आतल्या त्वचेवर साचते व पित्ताची निर्मिती होण्यास मदत होते. फास्टफूडमधील मसाले पोटातील त्वचेला हानी पोहोचवतात.
- 6) मेंदूच्या कार्यावर दुष्परिणाम होतो
- 7) फास्टफूडमध्ये असलेल्या मेदामुळे रक्तातील कोलेस्ट्रॉल वाढण्याची शक्यता अधिक असते. त्यामुळे हृदयरोग होण्याची शक्यता वाढते.
- 8) फास्टफूडमध्ये तंतुमयपदार्थांचा अभाव असल्याने पचनसंस्थेचा कर्करोग बळावण्याची शक्यता अधिक असते.
- 9) फास्टफूडमध्ये तंतुमयपदार्थांचे प्रमाण कमी असल्याने त्याच्या सेवनानेरक्तातील शर्करेचे प्रमाण वाढते तसेच लठ्ठपणा वाढतो व इन्शुलीनचे प्रमाण कमी होऊन मधू मेहजळण्याची शक्यात वाढते

उपाययोजना :-

- 1) फास्टफूडमध्ये असणाऱ्या हानिकारक रसायनां बदलमुलांना, तरुणांना मार्गदर्शनकरून त्यापासून होणाऱ्या गंभीर परिणामांची जाणिव करून देणे.
- 2) फास्टफूडमध्ये येणाऱ्या लठ्ठपणामुळे भविष्यात उद्भवणाऱ्या समस्या कोणत्या याबाबत जागृत करणे.

- 3) विविधरोगांवर संबंधीत तज्ञांचे डॉक्टरांचे व्याख्यान आयोजित करावे. त्यामुळे मुलांची, तरुणांची मानसिकता बदलण्यास मदत होईल.
- 4) गृहिणींनी समतोल आहाराचे महत्व पटवून द्यावे. जेणेकरून समतोल आहाराचे महत्त्व मुले घरामध्येच शिकतील.
- 5) शाळा, महाविद्यालयांमध्ये असणाऱ्या कॅन्टीनमध्ये फास्टफूड ऐवजी ज्यापदार्थातून पोषकतत्त्वे प्राप्त होतात अशापदार्थांचा वापर करण्यास सक्ती करावी.
- 6) सर्वसामान्यांमध्ये जागृती करण्यासाठी मोठ्याप्रमाणात वर्तमानपत्र, टेलिव्हीजन यांच्या माध्यमातून आहार कसा असावा. याबाबत मोहीम राबविण्याची गरज आहे.
- 7) सरकारने जाहीरातीच्या माध्यमातून अन्न, फास्टफूड व आरोग्याचा संबंध स्पष्ट करावा.
- 8) ज्याठिकाणावरून फास्टफूडचे वितरण होते. अशाठिकाणी वरील लोकांची कार्यशाळा घेवून त्यांना पौष्टिक पदार्थ तयार करण्यासाठी मार्गदर्शन करावे.

निष्कर्ष :-

लड्डापणाचे एक महत्त्वाचे कारण म्हणजे भरपूर खाण्याची सवय, आहारावर कंट्रोल नसणे, सध्याच्या धावपळीच्या काळात फास्टफूड, बेकरी प्रोडक्ट, स्पाईसीफुड हे केवळ बाहेरच खाल्ले जाते असे नाही तर बाहेरून विकत आणून घरी चवीने खाल्ले जाते. भरपेट मासाहार घेणाऱ्याच प्रमाण ही सतत वाढत आहे. त्यासाठी लड्डापणासाठी कोणता आहार, किती आणि केव्हा घ्यायचा, आहारातील कोणते पदार्थ कमी करायचे आणि कोणते पदार्थ पूर्णपणे टाळायचे याकडे लक्ष देणे फारच आवश्यक आहे.

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खेल मनोविज्ञान कोचिंग और उच्च प्रदर्शन

डॉ. अभिजित हे. इंगोले

शासकीय विदर्भ ध्यान विध्यान संस्था

महाविद्यालय अमरावती

प्रस्तावना :

खेल मनोविज्ञान मनोविज्ञान और खेल के प्रदर्शन के बीच इष्टतम एथलेटिक प्रदर्शन के मनोवैज्ञानिक पहलुओं, एथलीटों, कोचों और खेल संगठनों के मनोवैज्ञानिक देखभाल और कल्याण सहित भौतिक और मनोवैज्ञानिक कार्यों के बीच संबंधों को संबोधित करता है।

एशियन खेल खत्म होने के हफ्तेभर बाद अब यह बात उठना शुरू हुई है कि अपने देश का प्रदर्शन और अच्छा कैसे किया जाए. एक सवाल उठा कि क्या खिलाड़ियों को मनोवैज्ञानिक सेवाओं की जरूरत है? यह सवाल हॉकी में कांस्य पदक लेकर लौटी टीम के कोच से एक प्रेस कांफ्रेंस में पूछा गया था हॉकी कोच ने इस जरूरत को बड़ी आक्रामकता से नकार दिया. बाद में अपने हॉकी कप्तान ने कह दिया कि हमारे कोच ही हमारे मनोवैज्ञानिक हैं. जब बात उठी है तो इसका विश्लेषण भी होना चाहिए.

उपर दि गई परिभाषा के आधार पर, खेल मनोवैज्ञानिक विभिन्न गतिविधियों में भाग ले सकते हैं, जो ज्यादातर एथलीटों को प्रेरित करने और एथलीटों को अपने प्रदर्शन को कैसे सुधार सकता है, यह समझने के लिए काम करने पर केंद्रित है। इन गतिविधियों में सलाहकार एथलीटों से लेकर हो सकता है, जिनकी चिंता हो सकती है जो एथलीटों (अलग-अलग या समूह में) को मानसिक कंडीशनिंग के तरीके (उदाहरण के लिए, विजुअलाइजेशन, एकाग्रता और विश्राम) को एथलीटों की चोटों से निपटने में मदद करने के लिए निर्देशित करने के लिए उनके प्रदर्शन को कम करते हैं। यह सब एक और तरीके से करने के लिए, खेल मनोचिकित्सक इस नजरिए से काम कर रहा है कि खेल में सफलता शरीर और मन दोनों पर निर्भर करती है। एक अन्य महत्वपूर्ण बिंदु जोड़ने के लिए खेल मनोचिकित्सक अक्सर कुलीन एथलीटों-ओलंपियन और पेशेवरों के साथ मिलकर काम करते हैं। हालांकि, खेल मनोवैज्ञानिकों को सभी स्तरों पर एथलीटों के साथ-साथ कोच और खेल प्रशासक के साथ काम करना पाया जा सकता है।

सवाल उठा क्यों ? : दरअसल इस बार के एशियन गेम्स में हमें अपनी हॉकी टीम से बड़ी उम्मीदें थीं. वैसे उम्मीदें तो कबड्डी, कुश्ती, मुक्केबाजी निशानेबाजी जैसे कई और खेलों में भी थीं. बेशक प्रतियोगिता में हम काफी आगे तक आ भी गए थे. बहुतेरे क्वार्टर फाइनल और सेमीफाइनल मुकाबले आखिर आखिर तक हमने टक्कर के खेले मसलन हॉकी. लेकिन वहां खेल के आखिरी क्षणों और बाद में पेनल्टीशूट आउट में टूट गए जबकि खेल विश्लेषक मानते थे कि अगर वहां तक पहुंच गए थे तब पेनल्टीशूट आउट में हमारी जीत की संभावनाएं सामने वाली टीम के मुकाबले और ज्यादा हो गई थीं. लेकिन विश्वस्तरीय मुकाबले में मनोवैज्ञानिक स्तर पर जो मजबूती चाहिए थी उसमें कमजोर पड़ गए वैसे खेल तो खेल ही है. परिस्थिति विशेष में हार जीत के दसियों कारण हो सकते हैं. फिर भी समझदारी इसी में है कि जो जो कारण गिनाए जा सकते हों उन सब पर गौर किया जाए.

खेल जगत के अव्वल देश कितने मुस्तैद : एशियाई खेलों में चीन, जापान और दक्षिण कोरिया को देखें तो वे खेल और दूसरे किसी भी क्षेत्र में विज्ञान और प्रौद्योगिकी का इस्तेमाल करने का कोई मौका नहीं छोड़ते क्या यह एक कारण हो सकता है कि सबकुछ करने के बाद भी इस बार के एशियाई खेलों में हमारा नंबर आठवां था जो देश खेलों में अव्वल हैं वहां खेलों में मनोवैज्ञानिक उपायों को सबसे ज्यादा तरजीह दी जाती है. मसलन चीन और जापान जैसे कई देश.

सिर्फ हॉकी ही नहीं : मसला सिर्फ हॉकी का नहीं बल्कि दूसरे खेलों का भी है सिलसिलेवार समीक्षा हुई नहीं है. बेशक पदकों की कुल संख्या के लिहाज से हमारा प्रदर्शन पहले से बेहतर रहा. लेकिन ऑलंपिक या एशियन गेम्स में हम अपने पुराने रिकार्ड को बेहतर करने के मकसद से नहीं जाते बल्कि दूसरे देशों के मुकाबले अच्छा प्रदर्शन करने जाते हैं. इस बार हम एक भारीभरकम दल लेकर और अपनी अच्छी तैयारियों का दावा करते हुए एशियन गेम्स खेलने पहुंचे थे इन्हीं दावों के आधार पर अनुमान लगाए गए थे कि इस बार एशियाई खेलों में हम चौथे या पांचवें नंबर को हासिल करके

आएंगे, हिसाब 81 पदक पाने का लगाया गया था. अब चूंकि देशों की सूची गोल्ड मैडल की संख्या से तय होती है सो अपने 15 गोल्डमैडल के हिसाब से हमारा आठवां नंबर रहा जबकि रजत पदकों की संख्या 24 रही. यानी रजत पदकों की संख्या बता रही है हम कितनी प्रतियोगिताओं में सिर्फ एक कदम पहले ही टूटेइसीलिए यह बात उठी कि फाइनल या सेमीफाइनल के कड़े मुकाबले के दौरान दिक्कत आ रही है.

आखिरी मिनट में गोल खाया था हॉकी टीम ने : आखिरी मिनट में गोल खा जाने से जीतता हुआ मैच भारत पेनल्टी शूटआउट में हारा. पेनल्टी शूटआउट में प्रतिभा के साथ साथ मानसिक दबाव को नियंत्रित रख पाने की भी परीक्षा होती है. कुछ आलोचकों का कहना था कि भारतीय पुरुष हॉकी टीम की समस्या रही है कि वह खेल के अंतिम क्षणों में खुद को सहज नहीं रख पाती. इसके कई कारण गिनाए गए. एक कारण बताया गया कि खेल के अंतिम मिनटों में जब तनाव बढ़ता है तब टीम में संयम की कमी और दबाव के कारण पूरे मैच में हावी रहने के बावजूद भी आखिर में आकर हम लड़खड़ा जाते हैं. फिर चाहे वो पेनल्टी का रॉर्स का पूरा फायदा उठाने का मसला हो या शूट आउट्स की बात हो या आपसी तालमेल की. इसी के मद्देनजर हॉकी के कोच और कप्तान से खिलाड़ियों से तनाव के क्षणों में धैर्य साधने और उत्साह और निराशा को संभालने में मनोवैज्ञानिक सेवाओं की जरूरत वाला सवाल पूछा गया थाजवाब में कोच ने कहा कि मनोवैज्ञानिक की जरूरत क्यों है? अगर खिलाड़ियों में विश्वास ही लाना है तो वह तो किसी आम आदमी से बात करके भी आ सकता है. उनका कहना था की मनोवैज्ञानिक शब्द में ही नकारात्मक भाव है. और अगर टीम में मनोवैज्ञानिक रखा जाएगा तो खिलाड़ियों को लगेगा की वह कुछ गलत कर रहे हैं जिसे सुधारने के लिए किसी को लाया गया है. उनके मुताबिक एक खिलाड़ी अपना प्रेरक खुद ही होता है अगर वह खुद पर यकीन करेगा तो खुद सब ठीक कर लेगा एक पेशेवर विषय में ऐसी टिपण्णी एक राष्ट्रीय टीम के कोच और कप्तान से सुनना बहुतों को खसकर पेशेवरों को तो बहुत ही ज्यादा अजीब लगी होगी.

ज्ञान विज्ञान के प्रभुत्व का दौर है यह : आज हर क्षेत्र में बेहतर परिणाम पाने के लिए पेशेवर सेवाएं ली जा रही हैं खेल उनमें एक है. स्कूल कॉलेज में काउंसलर हों, उद्योग जगत में कर्मचारियों को प्रेरित करने और समस्याओं के निदान के लिए ट्रेनिंग प्रोग्राम करने वाले मोटीवेटर्स हों, या खेल जगत में बढ़ती लोकप्रियता और दबाव को संभालने वाले स्पोर्ट्स साइकोलोजिस्ट्स हों. खेल मनोविज्ञान या स्पोर्ट्स साइकोलॉजी मनोविज्ञान की नई शाखा जरूर है लेकिन इस समय दुनिया भर में यह बहुतही प्रचलित और स्वीकृत क्षेत्र है.

खेल के अलावा कुछ और भी हैं अब खेल : इस समय खेलों पर खर्च होने वाले पैसों से कहीं ज्यादा पैसा मैदान के बाहर के कार्यों पर खर्च किया जा रहा है. हर खेल और खिलाड़ी की इस समय एक ब्रांड वैल्यू है टीवी और इन्टरनेट के माध्यम से घर घर में अब हर खेल देखा जा रहा है. जीत हार के फौरन बाद सोशल मीडिया से तारीफ और आलोचना उसी समय मिलनी शुरू हो जाती है. मीडिया अपनी भूमिका निभाता है. एक खिलाड़ी के प्रदर्शन पर ही विज्ञापन और ब्रांड के प्रचार पर पैसे की मात्रा भी तय होने लगी है. सब वे कारण है जिनसे आज खिलाड़ियों पर खेल का तनाव पहले के मुकाबले कई गुना ज्यादा बढ़ चला है. खेल अब करियर है. और करियर को सही तरीके से चलाने के लिए काउंसलिंग की जरूरत कोई नई बात नहीं है. हार और जीत जब इतने बड़े पैमाने पर होने लगती हैं तो उन्हें मानसिक रूप से संभालने के लिए किसी पेशेवर की सेवाएं आज के समय में जरूरी बनती जा रही हैं.

वैसे यह कोई नई बात भी नहीं : ज्ञान की एक शाखा के रूप में खेल मनोविज्ञान का इतिहास करीब सौ साल का है. सन 1920 में बर्लिन ओलिंपिक के सेक्रेटरी जनरल कार्ल दिएम ने पहली स्पोर्ट्स साइकोलॉजी लैब की स्थापना बर्लिन, जर्मनी में की थी. फिर सन 1923 में पहली बार अमेरिकी स्पोर्ट्स साइकोलोजिस्ट कोलमन ग्रिफिथ ने इलिनोए विश्विद्यालय में इस विषय को पढ़ाना शुरू किया. संसाधनों की कमी के कारण इस विषय पर काम कई साल तक धीमी रफ्तार से आगे बढ़ा. सन 1965 में फिर दोबारा इस विषय पर काम शुरू किया गया. तभी इंटरनेशनल सोसाइटी ऑफ स्पोर्ट्स साइकोलॉजी की स्थापना की गई और बड़े पैमाने पर इसके पाठ्यक्रम शुरू कराए गए. आज दुनिया के ज्यादातर खेलों में खेल मनोवैज्ञानिक अपनी सेवाएं दे रहे हैं. ऑलिंपिक, कॉमनवेल्थ और एशियन गेम्स में जो देश सबसे ज्यादा गोल्ड मैडल पाते हैं

उनके यहां शारीरिक और मानसिक स्वास्थ्य पर बहुत ध्यान दिया जाने लगा है क्या हमें उस पर नज़र डाल लेनी चाहिए, खेल मनाविज्ञान का दायरा आत्म विश्वास तक सीमित नहीं : खेल मनोविज्ञान सिर्फ तनाव के प्रबंधन या विश्वास बढ़ाने तक सीमित नहीं है. खेल मनोवैज्ञानिक इस समय एक खिलाड़ी या टीम के प्रदर्शन को बेहतर करने के लिए पेशेवर तौर-तरीकों का भी इस्तेमाल करते हैं. मसलन इमेजरी, अंटेनशनल फोकस, आंतरिक और बाहरी प्रेरक आदि. इमेजरी यानी एक लक्ष्य की सचित्र कल्पना कराना और उसे ट्रेनिंग के दौरान परफॉर्म कराना. अंटेनशनल फोकस यानी शोर और आस पास के दूसरे भटकाव से ध्यान हटा कर दिए गए लक्ष्य पर ध्यान लगाने का अभ्यास कराना. बाहरी प्रेरकों में मनोवैज्ञानिक आमतौर पर ईनाम, धनराशि, ट्राफी, खिताब आदि का प्रयोग सुझाते हैं. आंतरिक प्रेरकों में जीतने की इच्छा, जीतने के बाद मिलने वाला सम्मान, देश के लिए किए जाने वाले प्रदर्शन पर गर्व कराना आदि आते हैं.. ऐसी कई पद्धतियां विकसित की जा चुकी हैं. जिससे खिलाड़ी मैदान में आत्मविश्वास के साथ हर परिस्थिति में सहज रहते हैं. बहरहाल हॉकी के कप्तान और कोच ने मनोवैज्ञानिक सेवाओं कीव्यर्थता पर भले ही कुछ बोल दिया हो लेकिन खेल प्रबंधकों को इस बारे में बात करना बंद नहीं करना चाहिए

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पोषक आहार व खेडाळू

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नविन भारताच्या युवा संकल्पनेत युवा अवस्थेत खेळाडूंचेही अत्यंत महत्वाचे स्थान आहे. खेळाडू व त्यांच्या शारीरिक क्षमता विषयी खेळाडूचा आहार व त्याचे पोषण कशा प्रकारचे आहे यावर त्याची क्रिडा क्षमता अवलंबून असते. खेळाडू ज्या भौगोलीक परिस्थितीत राहणारा आहे त्यावरून तो घेत असलेल्या आहाराची कल्पना करता येते. खेळाडूच्या प्रारंभीक काळात त्याने घेतलेल्या आहारानुसार त्याची शारीरिक क्षमता ठरते. खेळाडू युवा अवस्थेत असतांना त्याच्या खेळाच्या वेळा, खेळाचे कौशल्य, शारीरिक हालचाली व या शारीरिक हालचालीस लागणारी उष्णता निर्माती याला अनुसरूनच त्या खेळाडूचा आहार व त्याच्या वेळा ठरविल्या असाव्यात.

सर्वसाधारण भारतीय खेळाडूंच्या बाबतीत सराव व स्पर्धे दरम्यानची शारीरिक कार्य प्रणाली नुसार त्याला पोषक आहाराचे परीपूर्ण ज्ञान असेलच असे नाही. याकरीता वेगवेगळ्या समस्या असू शकतात. जसे खेळाडूची आर्थिक स्थिती, आवश्यक पोषक आहाराचे अपुरे ज्ञान, प्रादेशिक स्थिती, मार्गदर्शनाचा अभाव, रुढी परंपराचे मांसाहाराचे बंधने, पोषक आहाराची वेळेवरची उपलब्धता इत्यादी समस्या खेळाडूला आवश्यक आहारापासून वंचित ठेवतात.

शरीराला अन्नाची गरज भासणे म्हणजेच भुक् लागणे या गोष्टी मॅदुत असलेल्या हायपोथॅलॅमस या भागात कार्यान्वीत होतात. खावेसे वाटण्याचे केन्द्र ऊद्दीपित झाले की माणूस अन्न खातो, अन्न खाल्यानंतर भुक् भागते म्हणजेच तृप्ती केद्रातून तृप्ततेची भावना निर्माण होते व अन्न खाणे थांबवावे लागते. या केद्राचे नियंत्रण रक्तातील व त्या केद्रांत पोहचणा-या ग्लुकोजच्या प्रमाणावर असते. ग्लुकोजचे प्रमाण कमी झाले तर खावेसे वाटण्याचे केन्द्र उद्दीपित होते व ग्लुकोजचे प्रमाण जास्त झाले तर तृप्तीचे केन्द्र उद्दीपित होऊन खावेसे वाटत नाही. अशा प्रकारे मेन्दू शरीराच्या आहार पोषणावर नियंत्रण ठेवतो. अन्न ग्रहण करतांना अन्नात लाळ मिसळली जाते लाळेतील टायलींग या विकराची क्रिया होऊन त्याचे रुपांतर क्रमाने एरिथ्रोडेक्स्ट्रीन, अॅक्रोडेक्स्ट्रीन व नंतर मालटोज या साखरेत होते.

सर्वसाधारणपणे अन्न घटकाचे एकूण सहा घटक आहेत. कार्बोदके, प्रथिने, स्निग्धपदार्थ, जीवनसत्त्वे, खनिजद्रव्ये आणि पाणी. कार्बोदके, स्निग्धपदार्थ व प्रथिने या द्वारे शरीरात उष्णता व शक्ति उत्पादकाचे कार्य केले जाते. कार्बोदके, स्निग्धपदार्थ, प्रथिने व पाणि याद्वारे शरीरवृद्धीचे कार्य केले जाते तसेच खनिज द्रव्ये, जीवनसत्त्वे आणि पाणि या द्वारे शरीर नियंत्रण, क्षतिपूर्ती व संरक्षित घटक निर्मातीचे कार्य केले जाते. या अन्न घटकाची कडधान्य, पालेभाज्या, फळे व पाणि यातून परिपूर्ती केली जाते.

उपरोक्त अन्न घटकाची आवश्यकता सर्वसाधारण शरीरास तर आहेच परंतु खेळाडूंच्या शरीरास याहीपेक्षा अधिक पोषक शक्तीवर्धक अन्न घटकांची आवश्यकता असते. कारण सर्वसाधारण शरीराच्या हालचाली या सिमीत असतात, परंतु खेळाडूंच्या शरीराची हालचाल त्याच्या खेळादरम्यानच्या व्यायाम, सराव व स्पर्धेनुसार असतात. सहाजीकच त्याच्या शरीराला अतिरिक्त पोषक शक्तीवर्धक आहाराची आवश्यकता असते. त्याकरीता खेळाडूला अधिक पोषक अन्न घटक असलेल्या अन्नाचे ज्ञान असणे व त्याचे सेवन करणे आवश्यक असते. उदा. दुधामध्ये स्निग्धांश, प्रथिने, दुग्धशर्करा, कॅल्शियम, लोह, क जीवनसत्त्व, क्षार, पाणि इत्यादी अन्नघटक असतात. तसेच मास, मासे, अंडी यात प्रथिने, स्निग्ध पदार्थ, जीवनसत्त्वे, क्षार, कॅल्शियम याचे प्रमाण भरपूर असते.

सर्वसाधारण युवा पुरुष खेळाडूंच्या शरीरास ३८०० कॅलरीजची आवश्यकता असते. यात प्रथिने ६०, कॅल्शियम ४००, लोह २८, जीवनसत्त्वे २४००, थायमीन १.६, अॅस्कोर्बिक अॅसीड ४०, ड जीवनसत्त्वे ४०० ते ८०० याप्रमाणे आवश्यकता असते. खेळाडूंच्या शरीरास उपरोक्त कॅलरीज अन्नघटकातून मिळणे आवश्यक असते. शरीरास मिळणा-या कॅलरीज जर कमी पडल्या तर खेळाडूला खेळण्यास आवश्यक ऊर्जा मिळणार नाही व त्याला लवकरच थकवा जाणवेल. आधुनिक काळात खेळाडूंना आवश्यक अतिरिक्त कॅलरीजसाठी बाजार पेठेत 'प्रोटीन फूड्स' मिळतात. त्याच्या प्रमाणात सेवनाने खेळाडूंच्या शरीरास अतिरिक्त अन्न घटकाची पूर्तता करता येते. परंतु याकरीता आहार तज्ञांचे मार्गदर्शन घेणे आवश्यक आहे.

उच्च दर्जाच्या खेळाडूंकरीता हे शक्य आहे परंतु आजही शालेय स्पर्धा, विद्यापीठ स्पर्धा व असोसिएशनच्या स्पर्धांमध्ये भाग घेणा-या खेळाडूंना या पोषक आहाराच्या परीपूर्ण ज्ञानाचा अभाव असल्याने, चांगले क्रिडा कौशल्य असलेले खेळाडूही स्पर्धेत मागे पडतांना निदर्शनात येतात. त्यांना या पोषक आहाराच्या मार्गदर्शनाचाही अभाव जाणवतो. त्यांच्या आवडीनिवडी, आहाराचा वेळ व उपलब्ध आहार याचा थेट परीणाम त्याच्या शरीरावर होऊन खेळतांना तो लवकरच थकलेला निदर्शनास येतो.

योग - आधुनिक जिवनात काळाची गरज

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सारांश :-

योग हा शब्द ऐकला की, आमल्यासमोर दाढी मिशा वाढलेला संत, भगवे वस्त्र धारण केलेला योगी आढळतो. भारतामध्ये पुरातन काळापासूनच योग ह्याचा वापर होत आहे. त्यामुळेच भारतीय मानव हा बरेच वर्षांपर्यंत सुदृढ जिवन जगला. परंतु त्यानंतर काही काळाने योगचा प्रसार, प्रचार हा मर्यादीत स्वरूपात राहिल्यामुळे तो सर्वसामान्य लोकांपर्यंत पाहोचू शकला नाही. आधुनिक काळात अनेक साधुसंतांनी योग गुरुंनी व योग शिक्षण देण्याच्या संस्थांनी योगाचा प्रसार, प्रचार व त्याचे महत्त्व सर्वसामान्य संसारी मानसांपर्यंत पोहचविण्याचे काम केले आहे व करीत आहे.

योग शास्त्राच्या दृष्टीने योग म्हणजे जिवात्मा व परमात्मा यांचे ऐक्य, मिलन घडवून आणणे. महर्षि पंतजली ह्यांनी योग सूत्रात योग चित्त वृत्ती निरोध. अशी व्याख्या केली आहे.

धर्मार्थकाम मोक्षाणामारोग्य मुलमुत्तमम!

रोगास्तस्यापत्तारः यसो जिवितस्यच :

मानवी जिवनाचे सार्थक, धर्माचे अनुष्ठाण, अर्थापार्जन दिव्य-कामनेतुन सन्तती व मोक्षाची सिध्दता या चार पुरुषार्थांच्या सिध्दतेसाठी मनुष्य हा निरोगी, सुदृढ असणे महत्त्वाचे आहे.

योग सिध्दांताविषयी विवरण:-

योग शास्त्राचा उल्लेख हा वेद व उपनिषदामध्ये आढळतो. वेद व उपनिषदांना सार असलेला दुसरा ग्रंथ म्हणजे भगवद्गीता, भगवान श्रीकृष्णांनी १८ व्या अध्यायात १८ योग सांगितले आहे. ज्ञान योग, कर्मयोग, भक्ती योग, अभ्यासयोग, ध्यान योग, अनासक्ति योग असे अनेक मार्गांतून लोकांपूढे चित्तवृत्ती निरोध सांगून ज्याला जो जमेल, सोपा वाटेल तो मार्ग ज्याने त्याने स्विकारावा.

महर्षि पंतजली ह्यांनी २५०० वर्षांपूर्वी १९६ सूत्रात योगाची माहीती दिली आहे. तसेच ह्या सूत्राचे समाधिपाद, साधनपाद, विभुती पाद, कैवल्यपाद ह्या चार पादांत वर्णन केले आहे यालाच अष्टांग योग म्हटले आहे. ते म्हणजे यम, नियम, आसन, प्राणायाम, प्रत्याहार, धारणा, ध्यान समाधी हे होय.

यम, नियम, आसन, प्राणायाम यालाच बहिरंग योग म्हटले आहे. व आत्मविकास व कैवल्यानंद प्राप्तीचे साधन मानले आहे. व प्राणायाम अंतरंग व बहिरंग. शरीर व मन यामध्ये माध्यम म्हणून जोडणारा दुवा आहे. प्राणायामाद्वारे मन नियंत्रित करून आत्मजागरण करून आत्मशक्तीला विकसीत करू शकणारी शक्ती म्हणजेच प्राण संबोधले आहे.

शरीराती वेगवेळ्या भागात क्रियाशिलतेवरून प्राणाचे पाच प्रकार पडले आहेत. १) प्राण २) अपान ३) उदान ४) समान ५) थान या व्यतिरीक्त उपप्राण ज्यामुळे शरीरातील रेस्पिरेटरी, एक्सकियेटरी, डायजेस्टीव्ह, सर्क्युलेटरी म्हणजेच, श्वसन संस्था, हृदय, अन्ननजीका, फुफ्फुस, नेत्र, उर्जा मेंदु, पिच्युरिटी व पिनीअल ग्रंथी, किडनी, मलमुत्र विसर्जन, प्रजनन ई, तंत्राचे संचालन व नियम मेंदु करतो. म्हणूनच उदान वायुला सुपर कॉम्प्युटर (ब्रेम) असे म्हणतात. युटेरस, प्रोस्टेट गॅडन्स इत्यादी शरीर संस्थेला ठिक ठेवतो.

मनाला सुधारण्याचा एकच प्रभावी उपाय म्हणजे योग :मनप्रसमनः उपायः हा आहे. पातंजल मार्गदर्शनालाच विवेकानंदानी राजयोग असे म्हटले आहे.

हठ योगाची निर्मिती साधारण १२ व्या शतकाच्या सुमारास लिखित स्वरूपात होवून त्यात सर्व अंगाचे प्रयोजनरूप विस्तारीत वर्णन केले आहे. स्वामी स्वात्मारामाणी दृढ प्रदिपिका हा ग्रंथ लिहीला असून यालाच चतुरंग योग असे हो म्हटले गेले आहे. ह म्हणजे सुर्य, ढ म्हणजे चंद्र म्हणजेच शरीररूपी विश्वातील सुर्य व चंद्र यांचे संतुलन ठेवणारा मार्ग म्हणजे हठयोग होय. चतुरंगातील चार अंगे म्हणजे आसन. प्राणायाम, मुद्र, नान्दानुसंधान किंवा समाधीलक्षण हे होत. तसेच अहिंसा,

सत्य, अस्तेय, ब्रम्हचर्य, क्षमा, धृती, दया, आर्जव, मिताहार, सौच हे १० यम आहेत. तर तप, संतोष, अस्तिक्य, दान, ईश्वरपुजन, सिध्दांत, वाक्य, श्रवण, लज्जा, मती, तप व होय हे दहा नियम आहे.

आधुनिक भाषेत सांगावयाचे झाल्यास याग हि एक जिवन शैली आहे किंवा त्यालाच “आर्ट ऑफ लिव्हिंग” असे म्हटले आहे. आधुनिक युगात सर्वाचीच जगण्यासाठी प्रचंड धडपड व स्पर्धा चालु आहे. यातून उच्च रक्तदाब, हृदयविकार, मानसिक विकार, दमा इत्यादी आजार होवून अकाली मृत्युला बळी पडत आहे. आणि यातूनच स्ट्रेस मॅनेजमेंट ही कल्पना उदयास आलेली आहे.

वरील सर्व परिस्थितीवरून आजच्या धकाधकीच्या जीवनात मानवाचे आरोग्य चांगले राहणाच्या दृष्टीने नियमीत योगाभ्यासाने मानवाचे जीवन सुखमय व निरोगी राहण्यास मदत करते हे सिध्द झाले आहे. पतंजली योगपिठ हरीद्वार हे मोठ्या प्रमाणात योगशिक्षक तयार करून वैज्ञानिक क्रांती घडविण्याचा संकल्प स्वामी रामदेवजी महाराज यांनी योग शिबिरे आयोजित करून घेतलेली आहे.

संदर्भ सुची :-

- १) डॉ. सत्यपाल - 'वैज्ञानिक योगासन और स्वास्थ्य' किताब घर, गांधी नगर, दिल्ली.
- २) डॉ. खोडस्कर अरुण एन - 'स्वास्थ्य कुंज योग' श्री. ह.व्या.प्र.मंडळ, अमरावती

रजोनिवृत्ती आणि शारीरिक कामासाठी योगाभ्यास

विजया देविदासराव भोंड

प्रस्तावना**रजोनिवृत्ती काळात होणारे बदल :-**

रजोनिवृत्ती काळात होर्मोन्स कमी झाल्यामुळे ओव्हरीजमधील स्त्री बीज संपल्यामुळे रजोनिवृत्ती आली असतांना गर्भधारणेचा संभव नसल्यामुळे रक्तस्त्राव बंद होतो. खरे म्हणजे रजोनिवृत्ती ही निसर्गाने दिलेली देणगी समजली पाहिजे. कारण दर महिन्याला येणा-या मासिक स्त्रावातून स्त्रीची सुटका होते. योग्य वयामध्ये स्त्रीला मुले झाल्यामुळे ती म्हातारी होईपर्यंत मुले चांगली मोठी झालेली असतात. बहुतेकांचे कॉलेज शिक्षण पूर्ण होऊन मुले नोकरीला पण लागलेली असतात.

पाळी जाण्याच्या वयात पाळी थांबणे ही नैसर्गिक क्रिया आहे. पण गर्भाशय व ओव्हरीज यांचे ऑपरेशन जेव्हा करावे लागते व हे अवयव काढून टाकले जातात त्यावेळी पण पाळी बंद होते व रजोनिवृत्ती सुरु होते. आपल्याला आता मुल होणार नाही या एकाच भावनेने त्या सैरभर होतात. रजोनिवृत्तीमध्ये होणारी लक्षणे अशा स्त्रियांमध्ये जरा जास्त स्वरूपात दिसून येतात.

रजोनिवृत्ती आणि अनुवंशिकता या दोन्ही एकमेकांशी संबंधित आहे, हे आपल्या जनुकीय रचनेवर म्हणजेच अनुवंशिकतेवर अवलंबून असते. रजोनिवृत्तीचेवय साधारणपणे ४५ ते ५५ असू शकते. आईची किंवा मोठ्या बहिणीची मासिक पाळी लवकर गेली असेल तर स्त्रीची पाळी सुद्धा लवकर जाते.

रजोनिवृत्ती काळात स्त्रियांमध्ये होणारे शारीरिक बदल :-

रजोनिवृत्तीच्या संक्रमणकाळात मज्जासंस्था व व्हसोमीटर संस्थेतील बदलामुळे शारीरिक समस्यांना सामोरे जावे लागते.

१. डोके खूप दुखणे किंवा डोळ्याभोवती स्नायू आवळल्यासारखे वाटतात. डोकेदुखी किंवा मायग्रेन पाळी यायच्या आधी पूर्वीपासून होत असेल तर रजोनिवृत्तीकाळात हा त्रास जास्त प्रमाणात दिसून येईल.
२. सांधेदुखी ही दुसरी महत्वाची तक्रार स्त्रिया या काळा सतत काम करतात. खांद्याच्या, पाठीच्या स्नायुमध्ये गॅप असला तर त्यांना पूर्वीची जी कामे व्यवस्थित करता येत होती ती आता करता येत नाही.
३. शरीरावरील केस जाणे, पांढरे होणे.
४. त्वचेला सुरकुत्या पडणे, त्वचा कोरडी होऊन अंगाला खाज येणे, त्वचा सैल पडणे
५. विसिक असंतुलनामुळे चिंता, काळजी, औदासिन्य, चिडचिडेपणा, निद्रानाश, विस्मरण, लैंगिक इच्छा कमी होणे तर कधी वाढणे. संबंधामध्ये रस कमी होवू शकतो.
६. योनी आंकुचनामुळे संभोगात दुःख, मुत्रनलिकेला सुज, योनीला खाज इ. तसेच लघवीला वारंवार जावे लागते. नियंत्रणही कमी होवू शकते.

उद्दीष्टे:-

१. रजोनिवृत्ती मागील कारणांचे अध्ययन करणे.
२. रजोनिवृत्ती काळात स्त्रियांवर होणारे शारीरिक परिणाम जाणून घेणे.

वाड्.मयीन पुनरावलोकन :-

डॉ. यावलकर उर्वशी (२०१३) यांच्यानुर रजोनिवृत्ती म्हणजे काही आयुष्यातून निवृत्ती नव्हे हे स्त्रीने जाणायला हवं तो केवळ शारीरिक बदल आहे. एखाद्या गोष्टीची रुरवात होते, तशी ती संपतेही हे निसर्गचक्र आहे. या निसर्गचक्राचा स्वीकार करायचा असतो. १८ ऑक्टोबर हा जागतिक रजोनिवृत्ती दिन स्त्रियांना याच गोष्टीची जाणीव करुन देतो. ४०शी नंतर शरीर बदलणारच. त्याच वेळी रजोनिवृत्ती येते. ऐन तारुण्याच्या उंबरठ्यावर पाहिल्या रजोदर्शनाने बावरलेली मुलगी आता इतक्या वर्षानी पुन्हा गोंधळून जाते तिला अनामिक हुरहुर लागते. आपण आता आता आयुष्यातूनच बाद झालो का असा विचार तिच्या मनात घोळू लागतो. ही सर्वस्वी चुकीची गोष्ट आहे. म्हणूनच रजोनिवृत्ती म्हणजे होते तरी काय हे समजून घ्यायला हवे.

मुन्शी अतुल (२०१६)- यांनी रजोनिवृत्ती काळात घ्यायच्या काळजीविषयी काही मार्गदर्शक तत्त्वे दिलेली अून यामध्ये जीवनेलीतील बदल, व्यायामाची नियमितता, सकस आहार यावर भर दिलेला असून हार्मोन रिफ्लेसमेंट थेरपी अगदीच आवश्यक असल्यास करण्याची शिफारस केलेली आहे.

डॉ. तांबे बालाजी (२००९) - स्त्री-शक्तीकडे सरुवातीपासून लक्ष दिले, प्रकृतीनुरूप आहार-व्यायाम यांची योजना केली, रस-रक्त यांची ताकद वाढविणारी रसायने सेवन केली तर स्त्री शक्ती व्यवस्थित राहिल.

संशोधन कार्यपद्धती

या अध्ययनासाठी अमरावती जिल्ह्यातील सात तालुक्यामधून एकूण ६०० रजोनिवृत्ती स्त्रियांची निवड करण्यात आलेली असून तथ्य संकलनासाठी व्यापक प्रश्नावली तयार करण्यात आलेली आहे. माहितीचे संकलन प्रत्यक्ष मुलाखत व संशोधक विद्यार्थीनीचे निरीक्षण यांचा वापर करण्यात आलेला आहे. माहितीमध्ये अचुकता, परिपूर्णता व पारदर्शकता येण्यासाठी माहितीचे संकलन स्वतः संशोधक विद्यार्थीनीने केलेले आहे.

परिणाम व चर्चा

रजोनिवृत्तीची कारणे :-

पाळी जाण्यात वयात पाळी थांबणे ही क्रिया नैसर्गिक आहे. पण गर्भाशय व बीजपिंड यांच्यावरील शस्त्रक्रिया किंवा एखादा अवयव काढून टाकणे यामुळे बंद होणारी पाळी तसेच रेडिएशन देऊन बीजपिंडाचे कार्य थांबविणे यामुळे सुद्धा रजोनिवृत्ती प्राप्त होते. तरुण वयात स्त्रियांना याप्रकारे रजोनिवृत्ती प्राप्त झाल्यास त्यांच्या मनावर भावनात्मक परिणाम होतो. आपल्याला आता मूल होणे शक्य नाही या भावनेने नैराश्य येते.

सारणी क्र. - १ रजोनिवृत्तीची कारणे

अ. क्र.	तपशिल	पूर्णतः सहमत	अंशतः सहमत	सांगता येत नाही	अंशतः असहमत	पूर्णतः असहमत	एकूण
१	नैसर्गिकरित्या रजोनिवृत्ती	३९०	०	६	२	२०२	६००
		६५.००%	०%	१.००%	१.००%	३३.६७%	१००%
२	गर्भाशय काढल्यामुळे	५१५	०	६	५	७४	६००
		८५.८३%	०%	६	५	७४	६००
३	रेडिएशन देवून बीजपिंडाचे कार्य थांबविणे	५४४	३	९	३	४१	६००
		९०.६७%	०.५०%	१.५०%	०.५०%	६.८३%	१००%
४	थायरॉईड ग्रंथीमध्ये बिघाड	२९४	६	१३९	१०	१५१	६००
		४९.००%	१.००%	२३.१७%	१.६७%	२५.१६%	१००%

नियमित योगाभ्यास व व्यायामामुळे रजोनिवृत्ती नंतरचा काळ सुखकर होण्यास मदत होईल. रजोनिवृत्ती काळातील विचारांना पुष्टी देणारी योगासने आहेत ती प्रत्यक्षात आणून आर्तव विकारापासून दूर राहावे यासाठी काही योगासने सांगितलेली आहेत ती पुढीलप्रमाणे. १) उत्थित त्रिकोणासन २) उत्थित पार्श्वकोनासन ३) विरासन ४) सुप्त विरासन ५) बद्धकोनासन ६) सुप्तबद्ध कोनासन ७) उपविष्ट कोनासनही आसने योग्य मार्गदर्शनाखाली केल्यास आंतरइंद्रियांना कोणतीही इजा न होता त्यांचे बल वाढण्यास मदत होते.

सारणी क्र. - २

व्यायाम नयमितपणे एक तास केल्यास उष्मांकामध्ये घट

अभ्यास अवधी / तास	वजन व कॅलरी		
	१६० पौंड	२०० पौंड	२४० पौंड
एरोबिक्स (जलदगतीन)	५३३	६६४	७९६
एरोबिक्स (जलदगतीन)	३६५	४५५	५४५
नृत्य	२१९	२७३	३२७
फुटबॉल	५८४	७२८	८७२
गोल्फ	३१४	३९१	४६९
नैका संचालन दोरी वरील उड्या	४३८	५४६	६५४
धावणे (५ किलो मिटर अंतर प्रति १ तास)	६०६	७५५	९०५
ट्रेडमिल / पाय-या चढणे	६५७	८१९	९८१
पोहणे	४२३	५२८	६३२
ताई-चाई	२१९	२७३	३२७
टेनिस	५८४	७२८	८७२
चालणे (३.५ किलो मिटर प्रति १ तास)	३१४	३९१	४६९

पाळीचे महत्त्वाचे चार दिवस संपताच आसनांचा सराव सुरु केल्यास दुधात साखर पडल्यासारखे होईल. शारीरिक आणि मानसिक बल वाढविण्यास मदत होईल व सकारात्मक विचारांना पुष्टी मिळण्यास मदत होईल.

रजोनिवृत्तीकाळात शरीरात होणा-या बदलाविषयी अभिप्राय -

रजोनिवृत्तीच्या संक्रमण काळात मज्जासंस्था व व्हासोमोटर संस्थेतील बदलामुळे शारीरिक समस्यांना सामोरे जावे लागते. डोकेदुखी, सांधेदुखी, पाठदुखी, शरीरावरील केस जाणे, त्वचेला सुरकुत्या, त्वचा कोरडी होऊन खाज सुटणे, योनिचे आकुंचण, हाडांची ठिसुळता यासारख्या अनेक बदलांना स्त्रीला सामोरे जावे लागते. यालाच अनुसरून अध्ययनातील स्त्रियांचे रजोनिवृत्ती काळात शारीरिक बदलाविषयीचे अभिप्राय व काही महत्त्वाच्या बदलाविषयी प्रतिक्रिया नोंदविण्यात आल्या असून या खालील सारणीत दिलेल्या आहेत.

निष्कर्ष

- रक्तदाब आणि हृदयविकार याविषयी स्त्रियांना अल्प माहिती असल्याचे दिसून आले.
- व्यायामामध्ये बहुतांश स्त्रियांनी सकाळी चालणे पसंत केले आहे.
- ज्या स्त्रियांना रजोनिवृत्तीविषयी ज्ञान आहे त्या स्त्रिया आपल्या शरीरात होणा-या बदलाविषयी जागरूक आहेत.
- रजोनिवृत्त काळातील आहार व व्यायाम आवश्यक असले तरी आपली घरातील, व्यवसायातील व नोकरीतील कामे सांभाळूनच यासाठी वेळ काढणे आहेत.
- नियमित व्यायाम केलेले आहेत त्या स्त्रियांना रजोनिवृत्तीचे परिणाम तुलनेने निम्न भोगावे लागले.
- व्यायामामुळे चालण्याबरोबरच इतर व्यायाम, योगा, प्राणायाम आणि अॅरोबिक यामुळे शरीर काबूत ठेवणे शक्य आहे.

संदर्भ सुची

१. जोगळेकर शोभा (२००६) मेनोपॉज, मासिक पाळी बंद होतांनाच्या द्वितीय आवृत्ती समस्या व उपाय,
२. प्रकाशक - अनिल रगुनाथ फडके, मनोरमा प्रकाशन दादर, मुंबई
३. मुन्शी अतुल (२००६) २१ वी राष्ट्रीय परिषद, १९ ते २१ फेब्रुवारी नागपूर पेज नं. ४८
४. तांबे बालाजी (२०१२) फॅमिली डॉक्टर, दैनिक सकाळ पुरवणी, स्त्रीच्या जीवनातील ते महत्त्वाचे दिवस
५. योगाचार्य काळे बाबासाहेब (२०१४) स्त्रियांचे विकार व योगिक उपाय, प्रकाशक. अ. अ. कुलकर्णी, अनुबंध प्रकाशन.

सेफ्टी अॅन्ड फर्स्ट एड स्पोर्ट्स इन्ज्युरी**प्रा. डॉ. संगीता लोहकपूरे**डायरेक्टर ऑफ शारीरिक शिक्षण संचालक
श्री धाबेकर कला महाविद्यालय, खडकी, अकोला**प्राथमिक उपचार का अर्थ और परिभाषा :**

फर्स्ट एड शब्द को पहले-पहल इंग्लैंड में १८७९ में सेंट जान एम्बुलेंस एसोसिएशन द्वारा अपनाया गया । फर्स्ट एड यानी प्राथमिक उपचार एक साधारण संयोजन है लेकिन समस्या को बढ़ने से रोकने में बहुत ही प्रभावी और सक्रिय मापदंड है । प्राथमिक उपचार से अभिप्राय उस उपचार से है जो दुर्घटना के बाद समुचित चिकित्सा सहायता उपलब्ध होने से पूर्व किया जाता है । अन्य शब्दां में, प्राथमिक उपचार वह प्रक्रिया है जिसमें दुर्घटना के बाद पीड़ित व्यक्ति को उसकी चोट/रोग को लाभ पहुंचाने के क्रम में आवश्यक आपात उपचार दिया जाये जब तक कि उसे समुचित चिकित्सा सेवाएं उपलब्ध न हो जायें ।

प्राथमिक उपचार तुरंत और अस्थायी उपचार होता है जो पीड़ित को दुर्घटना या बीमारी की हालत में दिया जाता है ।

प्राथमिक उपचार का उद्देश्य :

प्राथमिक उपचार का उद्देश्य जीवन बचाना, स्वास्थ्य लाभ में सहायता करना, और हालात को गंभीर होने से रोकना है, जब तक की चिकित्सक की सेवाएं उपलब्ध न हो जायें., या वाहन से अस्पताल लाने, घर पहुंचाने या दुर्घटनास्थल पर मदद देने से है ।

प्राथमिक सहायक :

फर्स्ट एड यानी प्राथमिक सहायक शब्द १८९४ तक गढ़ा था और तब जो भी व्यक्ति एक अधिकृत एसोसिएशन से एक प्रमाण-पत्र प्राप्त करता था उसे एक योग्य प्राथमिक उपचार के नाम पुकारा जाता था ।

प्राथमिक उपचार के प्रकार : प्राथमिक उपचार के दो प्रकार हैं :

१) स्वयं सहायता

२) प्राथमिक सहायता

१) स्वयं सहायता : वह सहायता है जिसे घायल व्यक्ति स्वयं कर सकता है । कई मामलों में प्राथमिक मदद/सहायता पीड़ित व्यक्ति द्वारा स्वयं उपलब्ध करा ली जाती है । पीड़ित व्यक्ति द्वारा स्वयं ही बह रहे रक्त को रोक देना, घायल हिस्सों को सहारा देना, जख्मों को ढक कर, मदद के लिए दूसरों को पुकारना और निकट के किसी स्वास्थ्य तक पहुंचना ताकि आपात उपचार किया जा सके, भी काफी फायदेमंद साबित होता है ।

२) प्राथमिक सहायता : से अभिप्राय उस सहायता से है जब हादसे में घायल बेहोश या स्वयं न हिलजुल सकने योग्य पीड़ित के लिए लोग करते हैं; घायल को उनके द्वारा उपलब्ध करायी गई मदद ही प्राथमिक सहायता कहलाती है । यह वह व्यक्ति भी हो सकता है जिसे इस उद्देश्य से प्रशिक्षित किया गया हो या कम से कम प्राथमिक उपचार के सिद्धांतों को जानता हो । वह कुशल मदद दे सकता है, मौत को रोक सकता है, ठीक होने में मदद दे सकता है और यह देखता है कि डॉक्टर के आने तक चोट या पीड़ित की हालत और न बिगड़ने पाये ।

प्राथमिक उपचार बाक्स :

यह एक छोटा और हाथ में उठाए जा सकने योग किट बाक्स होता है जिसमें प्राथमिक उपचार के लिए निम्न सामग्री होती है ।

१) जीवाणुहीन गेज के टुकड़े ।

२) विभिन्न आकारों की पट्टी ।

३) विभिन्न आकारों का चिपकाने का प्लास्टर ।

४) कैंची, सेफ्टीपिन, सूई, चिमटी आदि ।

५) विभिन्न आकारों की पैड ।

६) खपची या बेर हड्डी ।

७) रोगाणुरोधक जैसे डिटोल, स्पिरिट आदि ।

८) सिल्वर सल्फा डाइजिन क्रीम ।

९) दवाएं जैसे-एनाल्सिक्स एंटीबायोटिक्स, ओ.आर.एस.के पैकेट आदि ।

पुर्व प्राथमिक उपचार बाक्स सभी घरों, संस्थाओं, मकानों, फैक्टरियों, सार्वजनिक स्थानों, स्वीमींग पूलों, जिमनेजियम हालों में और खेल के मैदानों में तैयार रखना चाहिए ताकि जरूरत पड़ने पर इसका तुरंत प्रयोग किया जा सके ।

खेल में चोट आने के कारण : खेल के मैदान, स्विमिंग पूल और जिमनेजियम में निम्नलिखित कारणों से खिलाड़ी घायल हो सकता है ।

१) खिलाड़ी/छात्र की कमजोर शारीरिक फिटनेस ।

२) विशेष गतिविधि २ खेल में भाग लेने के लिए मानसिक रूप से कमजोर तैयारी ।

३) मुकाबले में भाग लेने से पूर्व अपर्याप्त गर्माना ।

- ४) निम्न कोटि के खेल उपकरण या खेल ट्रेस उपयोग में लाना।
- ५) विशेष खेल के लिए गलत कौशल अपनाना।
- ६) खेलों के नियमों के ज्ञान की कमी।
- ७) खेल के मैदान / जिमनेजियम की सतह / स्विमिंग पूल का घटिया रखरखाव।
- ८) खेल के मैदान में एक योग्यता प्राप्त निरीक्षण / कोच / शिक्षक की अनुपस्थिति।
- ९) स्विमिंग पूल में जीवन रक्षक की अनुपस्थिति।
- १०) खिलाड़ी का घमंडी व्यवहार।
- ११) प्रशिक्षण / प्रतियोगिता के लिए विपरीत मौसमी परिस्थितियां।
- १२) शारीरिक शिक्षा कक्षा या टीम के प्रशिक्षण / अभ्यास में विषमता होना।
- १३) खेल रक्षकों का उपयोग न करना।

यहाँपर दो प्रकारके चोटोके प्राथमिक उपचार बताए है।

डुबने वाले व्यक्ति के लिए प्राथमिक सहायता एवं सामान्य उपचार :

- १) रोगी का मुँह साफ करें या गले से कीचड़ निकालें या पानी के साथ मुह में गई अन्य वस्तु को बाहर निकालें।
- २) पीड़ित व्यक्ति को अधोमुखी अवस्था में (पीठ ऊपर व चेहरा नीचे की ओर, एक ओर मुड़ा हुआ) करें और फेफड़ों व पेट में से पानी निकालने के लिए पीछे से दबा दें। इससे फेफड़ों के भीतर रुकी हवा बाहर आ जायेगी।
- ३) प्रत्येक दो सैकेंड के ठहराव पर हवा को फेफड़ों में जाने की इजाजत दें। इन गतिविधियों को १६ से १७ बार एक मिनट में जब तक करते रहो जब तक कि रोगी सांस लेना आरम्भ न कर दे।
- ४) जब पीड़ित सांस लेना शुरू कर देता है या यहां तक कि जब कृत्रिम श्वास दी जा रही हो, उसके गीले कपड़े उतार कर सूखे कपड़े पहना देने चाहिए।
- ५) शरीर को गर्म रखने के लिए उसे एक कम्बल से ढक दिया जाना चाहिए या दूसरे भारी कपड़ों से, यह स्थिति पर पर निर्भर करता है या इस उद्देश्य के लिए उपलब्ध सामग्री पर। उसके शरीर को रखने के लिए एक गर्म पानी की बोतल का भी इस्तेमाल किया जा सकता है।
- ६) गर्म चाय या काफी भी दी जा सकती है जैसे ही वह कुछ निगलने योग्य हो।
- ७) यदि प्राथमिक उपचार देने वाला यह समझे कि व उसे सांस देने / श्वास जारी रखने में सक्षम नहीं है, तो उसे घायल को तुरन्त अस्पताल पहुँचाने का प्रबन्ध करना चाहिए।

फ्रैक्चर्स के उपचार के लिए सामान्य प्राथमिक चिकित्सा सिध्दांत :

- १) रोगी की सामान्य हालत की जाँच करें।
- २) होश के स्तर की जाँच करें।
- ३) अनिवार्य पैरामीटर जाँच लें जैसे-नाडी, श्वास, रक्त दबाव आदि।
- ४) यदि रक्त बह रहा है तो उसे रोकिये।
- ५) रोगी को गर्म रखिये।

सुस्थिरता बनाये रखें ताकि और क्षति न हो ३

उस समय तक घायल को नहीं हिलाया जाना चाहिए जब तक कि घायल हिस्से को सुस्थिर न कर लिया जाये या जीवन को कुछ अन्य कारणों से खतरा हो। यदि परिस्थितिया एसी हैं कि घटना स्थल पर सुस्थिरता नहीं बनी रह सकती, तब पर्याप्त अस्थायी तौर पर जमा देना चाहिए ताकि घायल को किसी सुरक्षित या समुचित स्थान पर ले जाया जा सके। प्रायः सबसे अच्छा तरीका यह है कि हिलने-दुलने वाले बाजू को धड़ के साथ बांध दे या जमा दे। एक टूटी हुई टांग को दूसरी टांग के साथ बांधा जा सकता है। यदि दोनों टांगें टूटी हुई हा तब सहारा देने के लिए कृत्रिम स्थिरता दी जानी चाहिए। शरीर के ऊपरी अंगों के मामले में, आटे हुए हिस्से के जोड़ के नीचे और जोड़ के ऊपर के दोनों हिस्सों को सुस्थिर कर देना चाहिए। एक समान सहारे के साथ दी गई सुस्थिरता घाव को बढ़ने और प्रभावित स्थल से अधिक रक्त बहने को रोकती है। यह टूटी हड्डियों के किनारों से रक्त वाहिकाओं, नाड़ियों, पेशियों, चमड़ी के भेदकर पार होने से बचाता है। फ्रैक्चर को पट्टी और खपची के उपयोग से भी सुस्थिर किया जा सकता है।

पट्टी का प्रयोग :

फ्रैक्चर वाले हिस्से के ऊपर कभी भी पट्टी न बाँधें। इसे केवल हानिप्रद क्षणों में ही प्रयोग में लाया जाना चाहिए, लेकिन बत भी इतनी ज़ोर से न कसा जाये कि इससे रक्त का प्रवाह ही बंद हो जाये। यदि पट्टी बांधा हुआ हिस्सा और अधिक सूज जाता है और कसा हुआ लगने लगता है तब इसे ढीला कर देना चाहिए ताकि पर्याप्त मात्र में सामान्य प्रवाह चलता रहे। यदि चोट घुटने और टखने के बीच में है तो इसे पैड से बांध देना चाहिए। यदि इन्हें बांध दिया जायेगा तो यह रोगी को अप्रिय नहीं लगेगा जब रोगी को सही स्थिति में लाने के लिए पट्टी बांधी जायेगी।

खपचियों का प्रयोग :

खपची टूटी हड्डियों को सहारा देने के लिए प्रयुक्त की जाती हैं ये कठोर सामग्री की बनी होती है जैसे- लकड़ी के फट्टे, धातु या गत्ते आदि। घायल हिस्से को सहारा देने और टूटी हड्डी को सही हालत में लाने के लिए एक कठोर खपची ही काफी होती है। जिस अंग पर यह लगायी जानी है उसे सहारा देने के लिए इसका पर्याप्त आकार होना चाहिए। खपचियों को पट्टी या कपड़े की कातर के सहारे सही स्थिति में लाया जा सकता है। इससे बांधे जाने वाले हिस्से के संचार में कोई हस्तक्षेप नहीं होना चाहिए।

सारांश :

इस तरह प्राथमिक उपचार करके खिलाड़ियोंको ज्यादा नुकसान होने से बचाया जा सकता है। पर ध्यान रहे यह प्रशिक्षित व्यक्तीद्वाराही किया जाए। अथवा बड़ी हानि हो सकती है। सभी शारीरिक संचालकको यह जानकारी होना आवश्यक है।

संदर्भ ग्रंथ सूची :

- १) डांडिया, पी.सी. जाफर, जैड.वार्ड .के.एंड जाफर अफीफा, (Dandiya[P.C. Jafar, Z.Y.K. and Zafer Afifa), "Health Education and Community PHARMACH", Second Edition, 1996 Reprinted in 1998, Vallabh Prakashan, Pitampura, New Delhi.
- १) कपूर, एन. एण्ड बलिगा, एम. (Kapur, N. and Baliga, M.) "Elements of Health Education." Pitamber Publishing Company, 2nd Revised Edition, 1976 and Reprinted in 1987. Karol Bagh, New Delhi.

किशोरावस्थेतील मुलींच्या रक्तातील हिमोग्लोबीनचे अत्यल्प प्रमाण : एक समस्या**प्रिया भिमराव कांबळे**श्री शिवाजी कला व वाणिज्य महाविद्यालय
अमरावती**प्रस्तावना :-**

बाल्यावस्थेनंतरचा व प्रौढावस्था येण्यापूर्वीचा काळ किशोरावस्थेचा काळ समजला जातो. लहानपण ओसरलेले नसते आणि मोठेपण आलेले नसते. अशी ही किशोरावस्था म्हणजे पालकांची, शिक्षकांची फार मोठी जबाबदारी समजली जाते. किशोरावस्थेचा मार्ग हा महत्त्वाचा, खडतर, अडनिडा असतो. बऱ्या वाईटाचा सारासार विचार करण्याइतकी परिपक्वता नसते, उत्साह सांडत असतो, या वयातील मुलीचे मन संस्कारक्षम असते. अनुकरणप्रिय असते. त्यांना विविध कलांचे आकर्षण याच वयात वाटायला लागते. शारीरिक आणि मानसिक वाढीत एकदम बदल झाल्याचे जाणवते.

हिमोग्लोबीनचे प्रमाण वयाप्रमाणे, लिंगाप्रमाणे आणि आहाराच्या सवयीनुसार बदलते. नुकत्याच जन्मलेल्या बाळाच्या शरीरात १७ ते २२ ग्रॅम, बालकाच्या शरीरात ११ ते १३ ग्रॅम, प्रौढ पुरुषांत १४ ते १८ तर प्रौढ स्त्रियांत १२ ते १६ ग्रॅम/ डेसिलीटर इतके हिमोग्लोबीनचे प्रमाण असते. तर किशोरावयीन मुलींमध्ये हे प्रमाण त्याहुनही बऱ्याच वेळा कमी आढळते. या व्यक्तीचा आहार तपासतांना एक गोष्ट वारंवार लक्षात येते, ती म्हणजे चुकीच्या खाण्याच्या पद्धती व आहारविषयक अज्ञान.

आहाराकडे केवळ पोट भरण्याचे साधन म्हणून न पाहता तो संतुलित आणि पोषक कसा होईल याबद्दल प्रत्येकाने जागरूक असले पाहिजे. वस्त्रप्रावरण, दागदागिने, भौतिक सुखसुविधांची उपलब्धता, बँक बॅलन्स, इन्व्हेस्टमेंट्स यांच्याइतके महत्त्व दैनंदिन आहाराला दिले गेले पाहिजे. आर्थिक व्यवहाराची गणित काटेकोरपणे सोडवितांना आहारातील प्रथिने, कॅल्शियम, जीवनसत्त्व, खनिज यांचाही ताळेबंद सहजपणे मांडता यायला हवा.

हिमोग्लोबीनच्या बाबतीत निकष लावायचे झाल्यास जर व्यक्तीचे हिमोग्लोबीन १५ ग्रॅम असेल तर आपण त्याला १००% म्हणू शकतो. १३ ग्रॅम असेल तर ८०%, ११ ग्रॅम असेल तर ६०% आहे असे समजावे. बहुतेक वेळा किशोरावयीन मुलींमध्ये हिमोग्लोबीनचे प्रमाण १० ते ११ ग्रॅमच्या मध्येच आढळते. याचाच अर्थ फक्त ५०% रक्ताचा ऐवज घेवूनच मुलीचे शरीर काम करीत असते आणि अशातच मासिक पाळीद्वारे रक्ताचा बराचसा नाश होत असल्यामुळे मुलींमध्ये रक्तक्षयाचे प्रमाण अधिक आढळते.

संशोधनाचे उद्देश :-

- १) हिमोग्लोबीन कमी असण्याची कारणे शोधणे.
- २) आहारविषयक अज्ञान आणि भ्रामक कल्पना अभ्यासणे.

रक्तक्षय म्हणजे अॅनिमिया :-

रक्त हे हिमोग्लोबीन नावाच्या घटकापासून बनले जाते. त्यातील हिम म्हणजे लोहकण व ग्लोबीन म्हणजे प्रथिन. रक्तकण तयार व्हायला लोह, पूर्ण प्रथिने, फॉलिक अॅसिड, जीवनसत्त्व ब_६, व ब_{१२} आणि जीवनसत्त्व क ची गरज असते. रक्तक्षय झाल्यास शरीराला पुरेसा प्राणवायू मिळत नाही. लाल रक्तकण म्हणजे हिमोग्लोबीन, शरीरातील पेशीपर्यंत प्राणवायू पोहोचविण्याचे कार्य करते. रक्तातील हिमोग्लोबीनचे प्रमाण १२ ते १४% योग्य मानले जाते. त्यापेक्षा कमी असल्यास रक्तक्षय झाला असे मानतात.

रक्तक्षयाची लक्षणे :-

- १) हा आजार लोहाच्या कमतरतेनी होतो.
- २) रक्तातील हिमोग्लोबीनचे प्रमाण कमी होते. अशक्तपणा जाणवतो.
- ३) रक्तातील लालपेशीचे प्रमाण कमी होतात.
- ४) हातापायाला मुंग्या येतात.
- ५) नखे चमच्याच्या आकाराची होतात.

रक्तक्षय होण्याची कारणे :-

- १) अन्नघटकांच्या कमतरतेने :- आहारात लोह, तांबे, फोलीक आम्ल व जीवनसत्त्व ब_{१२} याची सातत्याने कमतरता असल्यास.
- २) मोठ्या प्रमाणात रक्तस्त्राव होणे :- अपघात, ऑपरेशन किंवा मासिक पाळीत रक्तस्त्राव अधिक होतो. त्यामुळे शरीरातील रक्त कमी होते.
- ३) रक्तातील तांबड्या पेशीची अधिक प्रमाणात मोडतोड होणे :- शरीराच्या अंतर्गत पेशीनिर्मिती आणि पेशीचे मृत होणे हे कार्य अव्याहतपणे चालूच असते. अशावेळी नवीन तांबड्या पेशी पाहिजे तशा तयार होत नाही.
- ४) काही विषारी पदार्थ सेवन केल्यास :- त्याचे दुष्परिणाम म्हणून रक्त कमी तयार होते.
- ५) चुकीच्या औषधाचा गंभीर परिणाम :- त्यामुळे नवीन रक्तपेशी शरीरात तयार होण्याचे प्रमाण मंदावते.
- ६) क्ष-किरणे :- क्ष-किरणाचा वाईट परिणाम पेशीवर होतो. अशावेळी देखील रक्तक्षय होतो.

हिमोग्लोबीन/ लोह कसे प्राप्त करुन घ्यावे :-

शाकाहारी पदार्थांमध्ये सर्व प्रकारच्या हिरव्या भाज्या, तसेच मुळ्याची, कोबीची, बिटची, गाजराची, अळूची पाने, राजगिरा, चवळी, शेपू, शेवग्याची पाने, पुदिना, कोथिंबीर यांना डाळीसोबत किंवा बेसन लावून शिजविल्यास वरुन लिंबू पिळून घेतल्यास फायदा होवू शकेल.

तसेच काळसर रंगाची सुकी फळे, मनुका, खजूर, खारीक, अंजीर, गुळ, काकडी याशिवाय कडधान्ये, बाजरी, नाचणी, आळीव इत्यादी महत्त्वाचे पदार्थ आहेत.

लोह शोषणात अतिशय महत्त्वाची भूमिका बजावणारा घटक म्हणजे जीवनसत्त्व ब₆ व ब₁₂ यासाठी धान्याला कडधान्याला मोड आणणे, पीठ आंबविणे, पदार्थ तयार झाल्यावर लिंबू पिळून चावून खाणे, यामध्ये लोहाचा फायदा शरीर करुन घेवू शकेल.

ज्यांना मांसाहार चालत असेल त्यांनी भाज्या, कडधान्यासोबत मांसाहार शिजविल्यास १००% फायदा शरीराला होवू शकेल. मांसाहारामध्ये अंडी, मटण, कलेजी, मासे यांचा समावेश करता येईल.

तसेच मॅग्नेशियम आणि जीवनसत्त्व ई ची गरज लोहाच्या अभिशोषणासाठी लागते ते आपल्याला सालासह धान्ये, कडधान्ये, डाळी, नैसर्गिक तेलबिया, गव्हाचे मोड इत्यादीपासून मिळते.

सारांश :-

प्रत्येक व्यक्तीला विकासाच्या प्रत्येक टप्प्यातून जातांना अनेक गोष्टींचे समायोजन करावे लागते. त्यातून बऱ्याच समस्या निर्माण होतात. किशोरींच्या शारीरिक व मानसिक वाढीबरोबर सामाजिक क्षेत्र विस्तारते. घरानंतर शाळा, महाविद्यालय, वाचनालय, खेळाचे मैदान, शेजारी-पाजारी, मित्र मैत्रिणी, नातलगांशी संबंध येतो. ह्या सर्व गोष्टी सांभाळताना त्यांचे योग्य आहाराकडे दुर्लक्ष होते.

आहारामध्ये अन्न घटकांची कमतरता असल्यास विशेषतः प्रथिनांचा प्रभाव असल्यास रक्तक्षय होतो. हा रक्तक्षय कोणत्या ना कोणत्या कारणाने रक्ताचा नाश झाल्याने आढळून येतो. त्याकरीता किशोरवयीन मुलींमध्ये हिमोग्लोबीन वाढविण्याकरीता योग्य आहार घेणे महत्त्वाचे ठरते.

निष्कर्ष :-

सध्या भारतात ५०% मुली रक्तक्षय या आजाराने ग्रस्त आहे. किशोरावस्था हा एक महत्त्वाचा कालखंड आहे. किशोरवयीन मुलींमध्ये शारीरिक व मानसिक बदल होतात. या वयातील तरुणींमध्ये आहारविषयक चुकीच्या पद्धतीमुळे रक्तक्षयाचे प्रमाण अधिक आढळते. किशोरवयीन मुलींचे आरोग्य हे निरोगी असणे आवश्यक आहे. कारण यावेळी या तारुण्यात प्रवेश करतात. परंतु त्यांच्या चेहऱ्यावर थकवा निस्तेजपणा जाणवतो.

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योगा उत्तम स्वास्थ्यचे प्रभावी साधन

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प्रस्तावना :-

"योग" हा शब्द मूळ संस्कृत धातू "युज्" म्हणजे जोडणे यापासून तयार झाल आहे. त्यात अनेक संकेत आहेत. जीवात्मा व परमात्मा यांचा योग, हा योग साधण्यासाठी चंचल असलेल्या मनावर विशेष नियंत्रण आणावे लागते, त्यास योग म्हणतात. "चित्तवृत्तीचा निरोध" अशी योगाची व्याख्या करतात. चित्तवृत्तीच्या पूर्ण निग्रहाने सविकल्पक व निर्विकल्पक समाधी साधता येते. समाधी म्हणजेच योग होय. हे योग्याचे जीवन ध्येय असते.

योगसाधनेसाठी शरीराची विशिष्ट प्रकारची स्थिती ठेवणे व त्यात सुख वाटणे म्हणजे विशेष आसन होय. म्हणून "स्थिरसुखं आसनम्" (स्थिर वसुखात्मक शरीरस्थिती म्हणजे आसन) अशी आसनाची व्याख्या योगसूत्रांत केली आहे. शुद्ध मन नसलेले शरीर, स्थिर बुद्धी नसलेले शरीरी कोण ते ही महत्वाचे कार्य यशस्वी करू शकणार नाही, स्वस्थ व व्याधिमुक्त शरीराशिवाय मनावर नियंत्रण आणता येणार नाही.

योगशास्त्रानुसार शरीर शुद्ध करण्याच्या प्रक्रियेसाठी शरीर ज्या विविध स्थितींमध्ये ठेवले जाते, त्यांना "योगासने" म्हणतात. योगाची आठ अंगे सांगितली आहेत ती म्हणजे, यम, नियम, आसन, प्राणायाम, प्रत्याहार, धारणा, ध्यान व समाधी होत. यास अष्टांग योग म्हणजे आठ अंगे असलेला योग असे म्हणतात. सुखावह स्थिरपणाने (कोणतीही हालचाल न करता) व शांत चित्ताने एखाद्या विशिष्ट स्थितीत दीर्घकाल राहता आले, म्हणजे ते "आसन" साध्य झाले, असे म्हणता येईल. तसेच कोणत्याही शारीरिक बैठकीत किंवा स्थितीत सुखावह व यातना विरहितरितीने मनुष्यास नित्याच्या दैनंदिन कार्यात व्यग्र व राहता येणे, हे आसनांच्य अभ्यासाने साधले पाहिजे. त्याकरीता एकूण शारीरिक स्वास्थ्य टिकून राहणे जरूरीचे आहे. शरीरातील विविध इंद्रिये व संस्था उदा. श्वसन, रक्ताभिसन, पचन, उत्सर्जन इ. तसेच स्नायूसमूह, ज्ञानतंतू व मन यासारखे घटक या सर्वांची कार्यक्षमता व परस्पर सहनियमन यांचा विकास व्हावा लागतो व तो योगासनांच्या नित्य सरावातून साधता येतो. योगासनांच्या विविध स्थितींमुळे - हालचालींमुळे पाठीचा कणा (मेरुदंड) आणि त्यातील पृष्ठवंशरज्जू अर्थात मज्जारज्जू-ज्ञानतंतू -मज्जपेशी यांच्यावर इष्ट परिणाम होतो.

योगासंबंधी गैरसमज :-

- १) काहीना 'योग' ही संन्याशांकरिता असलेली साधना आहे, असे वाटते.
- २) काहीना 'योग' हे चमत्काराचे शास्त्र आहे, असे वाटते.
- ३) काहीना 'योग' हे शरीराला क्लेश देणाऱ्या प्रक्रियांचे शास्त्र वाटते.
- ४) काहीना 'योग' हे एक व्यायामाचे शास्त्र आहे, असे वाटते.
- ५) काहीना 'योग' हे केवळ तत्वज्ञान सांगणारे दर्शन आहे, असे वाटते.
- ६) काहीना 'योग' ही एक उपचार पद्धती आहे, असे वाटते.
- ७) काहीना 'योग' फार अवघड शास्त्र आहे, असे वाटते.
- ८) काहीना 'योग' फार सोपा आहे, असे वाटते.

आपल्या मनाच्या पाठीवर असलेले हे समज नीट लक्षात घेऊन त्यातील योग्यायोग्यता समाजाडुन घेतली तर ते आपण दुरुस्त करू शकतो व त्यायोगे योगाबद्दलची आपली कल्पना स्पष्ट होऊ शकेल.

साधना :-

'योग' या शब्दांच्या उच्चारणाबरोबर आपल्या डोळ्यांपुढे एक संन्याशीच उभा राहतो आणि योगाचा अभ्यास करावयाचा असल्यास संसार सोडून सर्वसग परित्याग करून संन्यास घेऊन तो करायला हवा, अशीच अनेकांची धारणा असते. आपले शरीर आणि मन अधिकाधिक निरोगी असले पाहिजे. या जीवनाला सर्व गोष्टींचा पुरेपुर फायदा आणि अनुभव आपल्याला घेता आला पाहिजे. त्याकरता योगाच्या अभ्यासाचा निश्चितपणे उपयोग होऊ शकेल. म्हणजेच केवळ संन्याशांकरता योग आहे असे नाही तर संसारात देखील अधिक सुखाने व कार्यक्षमतेने जगायचे असेल तरी देखील योगाचा चांगलाच फायदा आपल्याला झाल्याशिवाय रहात नाही.

चमत्काराचे शास्त्र :-

काही वेळा चमत्कार घडवलेले आपण पहाते आणि हे चमत्कार योगाच्या माध्यमातून घडवले आहेत, असे भासवले जाते. काही चमत्कार सदृश गोष्टीही घडवता येतात हे खरे आहे. तथापी चमत्काराकरता योगशास्त्र नाही, किंबहुना योगाने अधिकाधिक

शास्त्रशुद्ध प्रक्रियाच पुढे मांडल्या आहेत. मानवी जीवनावर सखोल आणि चांगला परिणाम साध्याकरता योगाने अनेक प्रक्रिया सांगितल्या आहेत की, ज्यांचा चमत्काराशी संबंध नाही.

क्लेशकारक :-

व्यवहारात आपण आणखीही काही गोष्टी पाहतो. निरनिराळे साधू संन्याशी क्लेशकारक अशा गोष्टी योगाच्या नावावर करत असतात. एका पायावर उभे राहणे, खिळ्यांवर झोपणे, शरीराची अवघडलेली अवस्था करून दिवसेंदिवस त्या अवस्थेत राहणे, अशा स्वरूपाच गोष्टी ह्या शरीराला त्रासदायक ठरतात. म्हणून जोवर शरीराची स्थिती व सुखकारक अशी अवस्था आहे तोवरच ते आसन होऊ शकते. याचाच अर्थ ज्या प्रक्रियेत शरीराला व मनाला त्रासदायक असे परिणाम अनुभवाला येतात ती प्रक्रिया योगाची असूच शकत नाही.

व्यायामशास्त्र :-

योगासनाच्या हालचाली व अन्य व्यायामांच्या हालचाली यात जमीन-अस्मानाचा फरक आहे. योगासनामध्ये शक्तीची जपणूक, साठवणूक आहे आणि व्यायामामध्ये शक्तीचा व्यय आहे. त्यामुळे शारीरिक दिसणारी योगासने सुद्धा व्यायामाशी संबंधीत नाहीत, किंबहुना व्यायामाच्या अगदी उलट परिणाम योगासनामुळे अनुभवाला येतात. आधुनिक काळामध्ये योगाचा घरोघर प्रसार चाललेला असताना त्यामध्ये केवळ आसनांचाच प्रसार होत आहे आणि आसने बरीचशी शारीरिक असल्यामुळे योग हे देखील व्यायामाचे शास्त्र आहे, असा गैरसमज रूढ झालेला आहे. शासनाने देखील योग हा विषय क्रिडा खात्याच्या अंतर्गत ठेवलेला आहे. शिक्षण खात्याच्या नव्हे. अर्थात अन्य व्यायामाप्रमाणे यातही शारीरिक हालचाली असतात. म्हणून हा व्यायामाचा प्रकार वाटणे शक्य आहे.

दर्शनशास्त्र :-

योग शास्त्र हे एक दर्शन असल्यामुळे तात्विक भूमिकेतुन योगाचा अभ्यास केला जातो. अनेक ग्रंथ, त्यांचा अभ्यास, त्यावर चर्चा, वादविवाद या माध्यमातुन योगाभ्यास हा एक तात्विकच आहे पण केवळ तात्विक आहे असे नाही. योग हे प्रत्यक्ष अनुभूतीचे शास्त्र आहे. प्रत्यक्ष अनुभूति न घेता केलेली तत्वचर्चा ही व्यर्थच आहे, असे म्हणावे लागेल.

उपचार पद्धतीचे शास्त्र :-

योगाच्या अभ्यासाने काही व्याधी-शारीरिक किंवा मानसिक बऱ्या होऊ शकतात. म्हणून योग ही उपचार पद्धती आहे, असाही एक गैरसमज रूढ आहे. त्यामुळे व्याधी असतील तर त्या दूर करण्याकरता योगाभ्यास करावा, अन्यथा योगाभ्यासाची आवश्यकता नाही अशीच समजून सर्वसाधारणपणे दिसून येते. व्याधी होऊ न ये याकरता योगाभ्यासाचा उपयोग होतो हे फारच थोड्या लोकांना माहित आहे, परंतु ती वस्तुस्थिती आहे.

निष्कर्ष :-

'योग' या शब्दाची व्यावहारिक पार्श्वभूमि समजावून घेतल्यावर आपली योगाकडे पहाण्याची दृष्टी शुद्ध व स्वच्छ झाली आहे, या दृष्टीकोनातूनच आपण योग म्हणजे संयोग, संयमन व समाधि. योग म्हणजे एकत्र आणणेच आहे. म्हणजे योग या शब्त या तीनही अर्थांचे एकत्रीकरणच आहे. संयोग म्हणजे निश्चित उद्देशाने दोन गोष्टी एकत्रित आणणे. 'संयमन' म्हणजे त्यावर नियंत्रण ठेवणे आणि 'समाधी' म्हणजे समत्व. यासर्व गोष्टीमधुन एक प्रकारचे समत्व आणणे. आपण घड्याळाचे उदाहरण घेतले तर ते अधिक स्पष्ट होऊ शकेल. घड्याळाचे निरनिराळे भाग हे एका विशिष्ट उद्देशाने एकत्रित आणावे लागतात. विशिष्ट पद्धतीने जोडणी करावी लागते. त्यांच्या निरनिराळ्या हालचालींवर नियंत्रण ठेवावे लागते आणि यासर्व भागांची हालचाल घड्याळाचे काटे विशिष्ट दिशेने हलवण्याच्या दिशेनेच परस्परांना पूरक अशी असणे आवश्यक आहे. म्हणजे 'संयोग' 'संयमन' 'समाधी' या तीनही भूमिकेतून ज्यावेळी घड्याळाचे सर्व भाग एकत्र केले जातील, त्याचवेळी घड्याळ आपले काम करू शकेल, अन्यथा नाही. यातील एखादी गोष्ट कमी पडली तरी घड्याळ चालू शकणार नाही. त्याचप्रमाणे योगातही ज्या गोष्टी जोडावयाच्या आहेत त्या या तीनही पद्धतीने जोडल्या जाणे आवश्यक आहे. योगातील अनेक प्रक्रियांचा अभ्यास करत असताना 'योग' या शब्दामागची ही भूमिका स्पष्टपणे लक्षात ठेवणे आवश्यक आहे.

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तंतुमय पदार्थाचे आहारातील महत्त्व

आरती प्रकाशराव भांगे

श्री शिवाजी कला व वाणिज्य महाविद्यालय
अमरावती

प्रस्तावना :-

तंतुमय पदार्थ रोजच्या आहारातील एक अविभाज्य घटक आहे. त्याच्याशिवाय पचनक्रिया सुरळीत चालू शकत नाही. स्थूलता वाढलेला कोलेस्टेरॉल, उच्च रक्तदाब, हायपोथायरॉईड, वाढलेले होमोसिस्टिन, मलावष्टंभ, गाऊट, डायबेटीस या सर्वांवर गुणकारी असा एक पदार्थ कोणता, असा प्रश्न विचारला तर त्याचे उत्तर असेल ते म्हणजे 'तंतुमय पदार्थ'. अन्नातील चोथा म्हणजे तंतुमय पदार्थ होय. अन्नातील चोथा ज्याच्याकडे निव्वळ टाकाऊ किंवा आतड्यातील अन्न पुढे सरकविण्यास मदत करणारा घटक म्हणून पाहिले जायचे. त्या चोथ्याला आधुनिक जीवनपद्धतीत मात्र कमालीचे महत्त्व आले आहे. जेवढे काही लाईफस्टाईलशी संबंधित आजार आहेत, या सर्वांवर गुणकारी, या सर्वांपासून वाचविणारी अशी आरोग्याची गुरुकिल्ली आहे.

उद्दिष्ट्ये :-

- १) तंतुमय पदार्थाचे आहारातील महत्त्व अभ्यासणे.
- २) तंतुमय पदार्थाचा आरोग्यावरील परिणाम अभ्यासणे.

तंतुमय पदार्थाचे महत्त्व :-

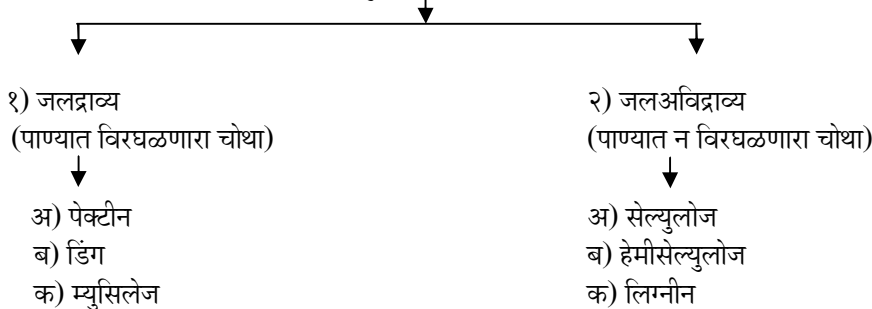
आहाराचा आरोग्याशी जवळचा संबंध आहे. याची आता लोकांना जाणीव होऊ लागली आहे. वर्तमानपत्रातून, मासिकातून समतोल आहाराविषयी बरीच माहिती आता वाचायला मिळते. रोजच्या आहारामध्ये प्रथिने, कर्बोदके आणि स्निग्ध पदार्थ आवश्यक आहे. तसेच तंतुमय पदार्थही आवश्यक आहे. त्याचे महत्त्व प्रत्येकाने जाणून घेणे गरजेचे आहे. आपल्या अन्नामध्ये जी फळे, पालेभाज्या असतात यामध्ये काही घटक असे असतात की त्याचे पचन होण्यासाठी पचन संस्थेचे पाचक रस नसतात. हे न पचलेले घटक तसेच शौच्छावाटे बाहेर पडतात याच घटकांना तंतुमय पदार्थ असे म्हणतात.

चोथ्याची तंतुमय पदार्थाची दैनंदिन आवश्यकता :-

आहारातून किती प्रमाणात तंतुमय पदार्थ घ्यावे याविषयी WHO जागतिक आरोग्य संघटनेने प्रत्येक १००० कि. कॅलरी मागे २२.२३ ग्रॅम तंतुमय पदार्थ असावे असे सुचविले आहे. तर राष्ट्रीय पोषण व आहार संशोधन संस्था यांनी दररोज ४०-५० ग्रॅम चोथा घेणे आरोग्यासाठी फायद्याचे आहे. असे नमुद केलेले आहे. तंतुमय पदार्थाच्या आवश्यकतेची पूर्तता करण्यासाठी निरनिराळ्या अन्नपदार्थातील चोथ्याचा समावेश करावा त्या पुढीलप्रमाणे-

- १) आहारात पालेभाज्यांचा समावेश करावा.
- २) सालीसहीत डाळी, कडधान्ये, फळे, फळांचा रस काढण्यापेक्षा सालीसहीत फळे खा.
- ३) कणीका ज्वारीचे पीठ न चाळता उपयोगास आणा.
- ४) बटाटे, रताळी यासारख्या भाज्याबरोबर मोडाची धान्ये, पालेभाज्या वापरा.

तंतुमय पदार्थाचे दोन प्रकार पडतात



१) जलविद्राव्य तंतुमय पदार्थ :-

पाण्यात विरघळणारा तंतुमय पदार्थ एक चीकट जेल तयार करतात. आतड्यामधील पाणी शोषून हा जेल तयार होतो. या प्रकारचे तंतुमय पदार्थ फार मोठ्या प्रमाणात ओट्सच्या कोंड्यात आढळतो, शेंगभाज्या (गवार, शेवगा इत्यादी) डाळी, सर्व प्रकारचे बीन्स (सोयाबीन, चवळी, मटकी इ.) आंबट फळे, सफरचंद, मेथ्या, करवंद, जांभुळ, कडधान्ये, द्विदल धान्ये यासारख्या भाज्यांमध्ये असतात. हे तंतू पेक्टिन (सफरचंद) गम बेटा-ग्लुकोज, म्यूसिलेज ऑलीगोसॅकराईस अशा वेगवेगळ्या घटकांनी बनलेले आहे.

जलविद्राव्य तंतुमय पदार्थाचे प्रकार :-

१) पेक्टिन :-

पेक्टिन म्हणजे वनस्पतीच्या मुळातील व खोडातील तंतु एकसंघ ठेवणारा एक प्रकारचा डिंग (चिकट) आहे. तो दाट प्रवाही स्वरूपाचा असून फळे, पालेभाज्यांची पाने व देठ, वनस्पतीच्या बिया इत्यादीत असते. उदा. पेरु, सफरचंद, कवठ यामध्ये आढळते.

२) डिक/ चीक (Gum) :-

हा रेपीय ग्लुकोज जलविद्राव्य व पचनीय आहे. वाळलेले वाटाणे, तृणधान्यात प्रामुख्याने बार्ली व ओटमध्ये या प्रकारचा चोथा मोठ्या प्रमाणात आढळतो. गवारमधील गुआरगम, मेथ्यामध्ये ४० टक्के हा चोथा असतो.

३) म्यूसिलेज :-

हे तंतुमय पदार्थ पाण्यात मिसळून त्याचे विघटन होऊनही अर्धप्रवाही बनतो. ज्यामुळे आतड्यात अन्नाची घनता (Viscosity) वाढते. त्यामुळे आतड्यातील अन्नाची हालचाल मंदावते व पोषक घटकाचे अभिशोषण होण्यास मदत होते. या प्रकारचा चोथा वनस्पतीच्या बिया, मुळे इत्यादीत असतो.

२) जलअविद्राव्य तंतुमय पदार्थ (इनसोल्युबल फायबर) :-

पाण्यातील विद्रावीत न होणाऱ्या तंतूना इनसोल्युबल फायबर असे म्हणतात. यामध्ये पेशीभित्तीकांचे घटक, सेल्युलोज असते. सर्व प्रकारचे बिनपॉलीशचे धान्य, नट्स (काजू, बदाम) शिवाय काही फळे, काही भाज्या (पालेभाज्या), तांदुळ यासारख्या धान्यात, काही भाज्या फळांमध्ये बऱ्याच प्रमाणात आढळतो.

जलअविद्राव्य तंतुमय पदार्थाचे प्रकार :**१) सेल्युलोज :**

हा वनस्पतीतील पेशी भित्तीकापासून मिळतो. जलअविद्राव्य आहे, पण पाणी शोषण करून फुगतो. ज्यामुळे मलउत्सर्जनक्रियेत सुलभता येते. हा चोथा धान्याचा कोंडा, डाळी कडधान्यांच्या सालीत असतो.

२) हेमी सेल्युलोज :

हा चोथा पाण्यात अविद्राव्य अल्कलीमध्ये विद्राव्य आहे. याचे अंशतः पचन होते. हा चोथादेखील मोठ्या प्रमाणात पाणी शोषण करतो. कोंडा न काढलेली तृणधान्ये काही फळे, भाज्या, कोंड्यासहीत कणिक यामध्ये हा चोथा असतो.

३) लिग्नीन :

लिग्नीन म्हणजे काष्ठमय सेल्युलोज पाचक रसाचा यावर काहीही परिणाम होत नाही. शरीरात स्पेस (बाइल) कोलेस्ट्रॉल व काही कॅन्सरजन्य घटक पदार्थांचे शोषण करतो. त्यामुळे कोलेस्ट्रॉल व चरबीचे अभिशोषण लिग्निनद्वारे होऊन शौचाद्वारे त्याचा निचरा घडवून आणण्याचे कार्य लिग्निनमुळे होते. लिग्निन बियासकट फळे व काष्ठमय वनस्पतीतून मिळते.

जलविद्राव्य तंतुमय पदार्थाचे कार्य :-

- १) हा पोटात जेलीसारखा बनतो. त्यामुळे पोटातील अन्नाची व आतड्यात पोचलेल्या अन्नाची हालचाल कमी होऊन अन्न हळूहळू पुढे सरकते व आतड्याचा दाह कमी होतो.
- २) जलद्राव्य चोथा निरुपयोगी किंवा जास्त झालेल्या कोलेस्ट्रॉलबरोबर एकत्रीत होऊन रक्तवाहीन्यात कोलेस्ट्रॉलचा थर जमा होण्यापासून बचाव करतो. ज्यामुळे हार्टअटॅकचा धोका टळतो.
- ३) रक्तप्रवाहात जास्त झालेला कोलेस्ट्रॉल कमी करतो. ज्यामुळे पित्ताशयात खडे होण्यास (प्रतिबंध) आळा घातला जातो.
- ४) रक्तातील LDL (Low density lipoprotein) या अपायकारक कोलेस्ट्रॉलचे प्रमाण कमी करण्याचे कार्य करतो. त्यामुळे हृदयरोग होण्याचा संभाव्य धोका कमी होण्यास मदत होते.

जलअविद्राव्य तंतुमय पदार्थाचे कार्य :-

- १) या तंतुमय पदार्थावर कोणतीच प्रक्रिया होत नाही. पचनमार्गात हे तंतुमय पदार्थ त्याच्या वजनाच्या कितीतरी पटीने जास्त पाणी शोषून घेऊन फुगतो व न पचलेले अन्न शरीराबाहेर टाकले जाणे सुलभ होते.
- २) अपचनीय अन्नाला गुदद्वारापर्यंत नेण्यासाठी आतड्याच्या आकुंचनास प्रोत्साहित करण्याचे कार्य हे तंतुमय पदार्थ करतात.
- ३) या तंतुमय पदार्थांमुळे शौचाला साफ होण्याची क्रिया घडून येण्यास मदत होत असल्यामुळे आतड्यात अपचनीय अन्न जास्त काळ राहत नाही.

तंतुमय पदार्थाचे फायदे :

- १) अन्नपदार्थातील तंतुमुळे आपले पोट निरोगी राहते आणि मधुमेह, हृदयविकार तसेच मोठ्या आतड्यांचा कर्करोग यासारख्या आजारांना प्रतिबंध होतो.
- २) हृदयविकारासाठी कारणीभूत ठरत असलेले वॉईट (एलडीएल) कोलेस्टेरॉल शोषण होवून तंतुमय पदार्थ हृदयाचे आरोग्य राखतात.
- ३) मधुमेह आणि रक्तशर्करेच्या नियंत्रणासाठी- तंतू रक्तशर्करेचे शोषण करतो. त्यामुळे रक्तातील ग्लुकोजची पातळी वाढत नाही.

४) पचनसंस्था कार्यरत ठेवण्यासाठी :

जठरामध्ये पचन न होता तंतू थेट मोठ्या आतड्यामध्ये पोहचतात आणि तीथे जिवाणू त्यांचे कार्बन डायऑक्साईड, मिथेन, हायड्रोजन आणि फॅटी ॲसिडच्या लहान साखळ्यामध्ये रूपांतर करतात. पाण्यात विरघळणाऱ्या तंतुमुळे मोठ्या आतड्यामधील उपयुक्त जिवाणूंची वाढ होण्यास मदत होते.

५) वजन कमी करण्यासाठी :

दोन्ही प्रकारचे तंतू अतिरिक्त उष्मांक किंवा चरणी व्यतिरिक्त पोट भरल्याची भावना निर्माण करतात.

६) सर्वकष आरोग्यासाठी :

तंतूयुक्त अन्नपदार्थांमध्ये जीवनसत्व आणि क्षार मोठ्या प्रमाणात असतात. त्यामुळे सर्वकष आरोग्यासाठी तंतूमय पदार्थांचा उपयोग मोठ्या प्रमाणात होतो.

७) कॅन्सरजन्य घटकांची निर्मिती रोखण्यास मदत करतो.

फायबर (तंतूमय पदार्थ) प्राप्तीची साधने :

तंतूच्या प्रमाणानुसार खाद्यवस्तूंची वर्गवारी

तंतूचे प्रमाण	खाद्यवस्तू
जास्त प्रमाण	गहू, ज्वारी, बाजरी, नाचणी, मका, बरी, कडधान्ये, डाळी, मेथ्या, कारळ, करडी-बी
मध्यम प्रमाण	तांदूळ, बहुतेक भाज्या- विशेषतः पालेभाज्या, शेंगा, फळे, नारळ, तीळ, आळीव, जवस, शेंगदाणे, कठीण कवचाची फळे
अल्प प्रमाण	बहुतेक पिठाळ भाज्या बटाटा, रताळे, कांदा आणि प्रक्रिया केलेले पदार्थ- उदा. सडलेला तांदूळ, उकडा तांदूळ, चाळलेली कणिक, मैदा, पोहे, चुरमुरे, रवा, पाव, मॅक्रीनी, शेवया
अजिबात नाही	साखर, खाद्यतेल, तूप, दुध, दुधाचे पदार्थ, सर्व मासाहारी पदार्थ

तंतूमय पदार्थांचे परीणाम :

आहारात तंतूमय पदार्थ जास्त असलेले पदार्थ घेणे योग्य नसते. त्याचे प्रमाण जास्त झाल्यास शरीरावर हानीकारक परीणाम होतो.

- १) तंतूमय पदार्थांच्या आधिक्यामुळे खनिजाची कमतरता निर्माण होते. खनीजे तंतूमय पदार्थांमध्ये एकत्रीत होऊन शौचाद्वारे शरीराबाहेर टाकली जाऊन त्याचा अभाव निर्माण होतो.
- २) तंतूमय पदार्थांचे प्रमाण जास्त झाल्यास आतड्यात तंतूमय घटक फसतात त्यामुळे गॅसेस होतात. पोटत अस्वस्थता/ बेचैनी निर्माण होते. पातळ शौचाला होणे यासारख्या तात्पुरत्या तक्रारी निर्माण होतात.

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- 4) वेबसाईट <https://www.loksatta.com>>food
- 5) वेबसाईट <https://m.dailyhunt.in>>marathi

बालकांच्या विकासात मैदानी खेळाची भूमिका

डॉ. सीमा पंजाबराव भुईभार
श्री शिवाजी कला व वाणिज्य महाविद्यालय
अमरावती

सारांश :

बालकांचा विकास म्हणजेच भावी जीवनाच्या यशाची पावती असे आपल्याला माहित आहे. मुलांचे उत्तम व्यक्तिमत्त्व घडविण्यात मैदानी खेळाची फार मोठी भूमिका असते. आपण कोण आहोत, आपल काय महत्त्व आहे, इतरांविषयीचे विचार या सर्वांविषयी चौकशा वाढविण्याकरीता, समस्या सोडविण्याची क्षमता निर्माण करण्याकरीता मैदानी खेळ खेळतांना मुलं जी पद्धती वापरतात ती मुलांच्या जीवनात संशोधकासारखी कार्य करतात. मुले आपल्या भावनांवर नियंत्रण ठेवणे, इतरांना सहकार्य करणे ह्या सर्व गोष्टी मैदानी खेळातून शिकत असतात.

मैदानी खेळ बालकांच्या आयुष्यात हा अत्यंत महत्त्वाचा भाग असला तरीही आता बहुतांश मुले मैदानी खेळापेक्षा मोबाईल, लॅपटॉप, दुरदर्शन अशा तंत्रज्ञानामध्ये रममाण होतात. मुलांची नैसर्गिक खेळण्याची गरज आज मोबाईल वरील खेळामुळे पूर्ण होत आहे. त्याचा विपरीत परिणाम बालकांच्या सामाजिक, शारीरिक आणि भावनिक विकासावर होत आहे का ? हे जाणून घेणे हे बालकांच्या विकासाच्या दृष्टिने महत्त्वाचा संशोधनाचा विषय झाला आहे. हा दृष्टिकोन समोर ठेवून मैदानी खेळ खेळणाऱ्या व न खेळणाऱ्या बालकांच्या तुलनात्मक अध्ययनातून सामाजिक, शारीरिक, भावनिक विकासावर होणारा परिणाम विषद करण्यात आला आहे.

शोध संज्ञा : मैदानी खेळ, बैठे खेळ, सामाजिक, भावनिक, शारीरिक विकासावर होणारा परिणाम.

प्रस्तावना :

बालकांचे जीवन आरोग्य संपन्न होऊन त्यांचा सर्वांगीण विकास साधण्याकरीता मैदानी खेळ आणि बालक यांचे महत्त्व अनन्यसाधारण आहे. Biil Shakil यांच्या मते, "Sport is not a matter of life and death, it is much moare important than that."

मैदानी खेळ हे एक वैद्यकीय उपचाराचा भाग आहे. खेळण्यातून मुलांच्या मनात कोंडलेल्या भावनांना वाट मोकळी करून दिली जाते. खेळामध्ये एका पेक्षा जास्त मुलं असतील तर ते सहजीवनच असतं. खेळातून सामाजिक कौशल्यासोबत, शारीरिक विकास साधल्या जातो. हे सर्व बालकांच्या विकासाच्या दृष्टिने आवश्यक असले तरीही गेल्या काही वर्षात बालकांची जीवनशैली चांगलेच बदलत आहे. आता मुले मैदानी खेळापेक्षा, लॅपटॉप व्हिडीओ गेम (P.S.) अशा तंत्रज्ञानामध्ये रमलेली दिसतात. हे कृत्रिम खेळ मुलांना वास्तविक खेळापेक्षा जास्त आवडायला लागले आहे.

शैक्षणिक क्षेत्रात बालकांसमोर स्पर्धात्मक आव्हाने दिवसेंदिवस वाढत आहेत. या स्पर्धात्मक आव्हानांचा विपरीत परिणाम म्हणजे बालकांच्या जीवनातील नैसर्गिकता कमी होऊन ताणाचे प्रमाण वाढत आहे. बालकांचे परिपूर्ण आणि उत्तम व्यक्तिमत्त्व घडविण्यासाठी पोषण, आरोग्य, शिक्षण याबरोबर मोकळ्या वातावरणात निसर्गाच्या सानिध्यात सवंगड्यासोबत खेळणे बालकांच्या दृष्टिने महत्त्वाचे आहे. २१ व्या शतकाकडे वाटचाल करतांना दोरीवरच्या उड्या, लगोऱ्या, विटीदांडू, पकडा-पकडी, मल्लखांब, खांब खांब खांबोल्या हे सर्व मैदानी खेळ इतिहासात जमा होऊ पाहत आहेत. याचा परिणाम बालकांच्या विकासावर जाणवतो आहे का ? हे अभ्यासणे गरजेचे आहे ?

खेळ :

केवळ आनंदासाठी कोणतेही ध्येय संपादनाचा हेतू न बाळगता केलेली क्रिया म्हणजे खेळ.

बैठे खेळ :

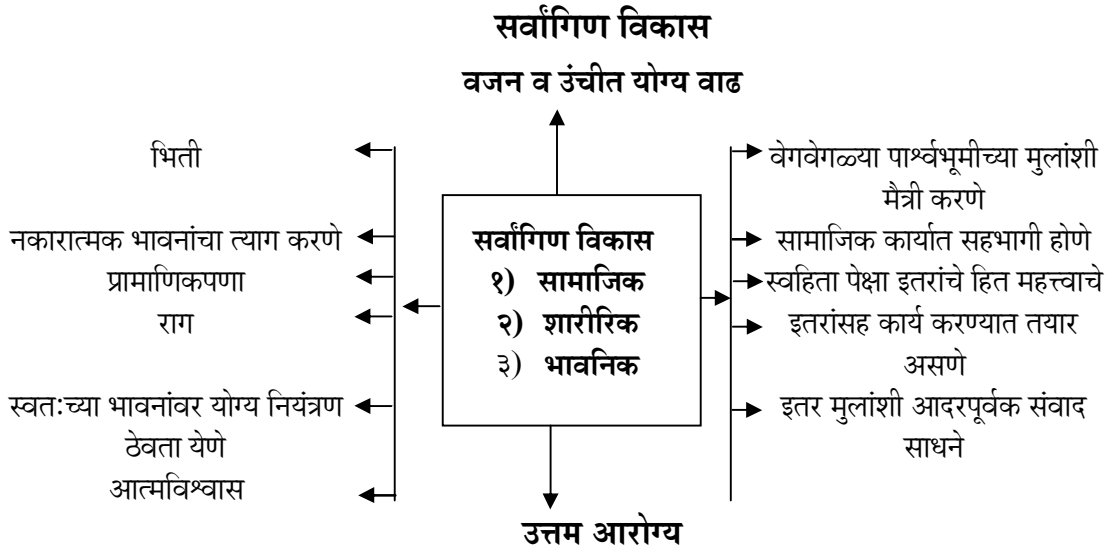
जे खेळ एका जागेवर बसून खेळले जातात. त्यांना बैठे खेळ असे म्हणतात.

मैदानी खेळ :

मैदानावर विविध शारीरिक क्रिया व कौशल्याद्वारे केलेली शारीरिक हालचाल म्हणजे मैदानी खेळ.

उत्तर बाल्यावस्था (वय वर्ष ६ ते १२) :

वयाच्या सहाव्या वर्षापासून सुरु होणारी उत्तर बाल्यावस्था वयाच्या बारा वर्षापर्यंत चालू असते. हा काळ बालकांच्या सर्वांगीण विकासाच्या दृष्टिने महत्त्वाचा काळ आहे.



उद्दिष्ट्ये :

मैदानी खेळ खेळणाऱ्या बालकांच्या विकासावर होणारा परिणाम अभ्यासणे.

गृहितक :

- १) मैदानी खेळ खेळणाऱ्या बालकांच्या तुलनेत मैदानी खेळ न खेळणाऱ्या बालकांचा विकास हा कमी होतो.
- २) मैदानी खेळ खेळणाऱ्यांच्या तुलनेत न खेळणाऱ्या बालकांच्या वर्तणूकीवर परिणाम जाणवतो.
- ३) मैदानी खेळ खेळणाऱ्यांच्या तुलनेत न खेळणाऱ्यांमध्ये वजन वाढीचे प्रमाण अधिक जाणवते.

नमुना निवड :

प्रस्तुत संशोधनाकरीता अकोला शहरातील इंग्रजी शाळेची निवड करण्यात आली. ६४० मुल/ मुली व पालकांची नमुना म्हणून निवड करण्यात आली.

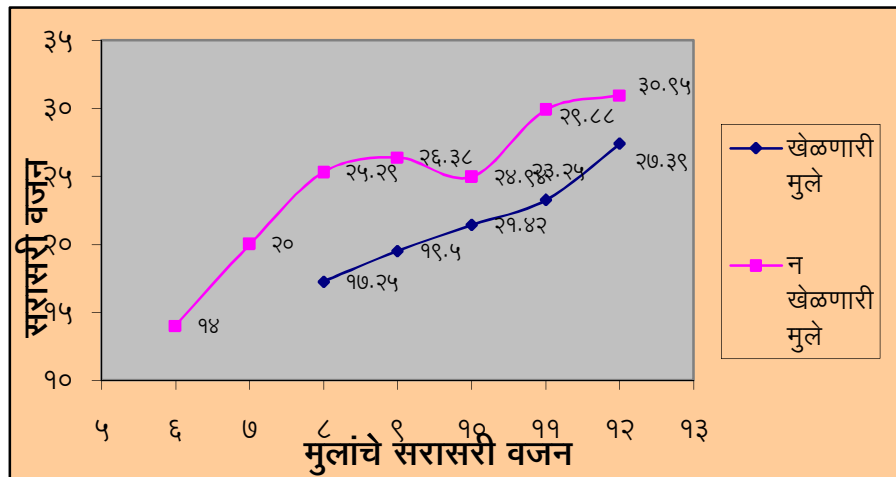
संशोधन पद्धती :

प्रस्तुत संशोधनात तथ्य संकलनासाठी मुलाखत अनुसूची व निरीक्षण पद्धतीचा उपयोग करण्यात आला. Chi square चाचणीचा उपयोग त्याच बरोबर (वजन व उंची) च्या तुलनात्मक अध्ययनाकरीता t test चा उपयोग करण्यात आला.

सांख्यिकीय विश्लेषण :

बालकांचे जीवन आरोग्य संपन्न होऊन त्यांचा सर्वांगिण विकास साधण्याकरीता मैदानी खेळ आणि बालक यांचे महत्व अभ्यासने गरजेचे आहे. chi-square चाचणी मूल्य ५०.९७ ची ०.०५ सार्थकता स्तरावर तक्ता मूल्याची (५.९९) तुलना केली असता सार्थकता दिसून येते. स्पर्धेत भाग घेतांना जिंकण्याचा आत्मविश्वास असल्याचे प्रमाण हे मैदानी खेळ खेळणाऱ्यांमध्ये अधिक असल्याचे दिसून येते. मोकळ्या वातावरणात मैदानावर इतरांसमवेत मैदानी खेळ न खेळल्यामुळे मनातील भावनेचे प्रगटीकरण करण्यास वाव मिळत नाही. याच कारणाने भिती वाटण्याचे प्रमाण न खेळणाऱ्यांमध्ये अधिक असते.

Chi-square चाचणी मूल्य ३०.८१ ची ०.०५ सार्थकता स्तरावर तक्ता मूल्य ५.९९ सोबत तुलना केली असता सार्थकता दिसून येते. मैदानी खेळ खेळणाऱ्या बालकांची इतरांपुढे विचार मांडण्याची क्षमता जास्त असते.



मैदानी खेळ खेळणाऱ्या मुलांच्या तुलनेत न खेळणाऱ्या वय वर्ष ८, ९, ११ तसेच १२ वर्षांच्या मुलांमध्ये वजनाचे प्रमाण हे अधिक आढळून आले आहे. तसेच वय वर्ष ७, ९, १२ वर्षांच्या मुलींमध्ये वजनाचे प्रमाण खेळणाऱ्या मुलींच्या तुलनेत अधिक आढळून आले. मैदानी खेळ न खेळणाऱ्या बालकांमध्ये आजारी पडण्याचे प्रमाण २.६६ टक्क्याने अधिक असल्याचे दिसून येते. मैदानी खेळ खेळणारी बालके मोकळ्या वातावरणात खेळल्याने त्यांना ऑक्सिजन भरपूर मिळतो. शरीराची योग्य हालचाल झाल्यामुळे रक्तभिसरण योग्यरितीने होते. बाहेरील वातावरणाशी समरस होतात. बालकांची रोग प्रतिकारक शक्ती वाढते. अशा बालकांचे आरोग्य उत्तम राहाते.

इतरांच्या आनंदात वाईट प्रसंगात सामाजिक सहभाग दर्शविण्याचे प्रमाण मैदानी खेळ खेळणाऱ्या बालकांमध्ये अधिक असते. मैदानी खेळ खेळणाऱ्यांमध्ये इतरांना सहकार्याची भावना अधिक असते, त्यांची सहकार्याची भावना मैदानी खेळ खेळल्याने द्विगुणीत होते.

निष्कर्ष :

वाढत्या बैठ्या खेळाचे प्रमाण लक्षात घेता मैदानी खेळाचे बालकांच्या विकासावरील परिणाम अभ्यासने गरजेचे होते. मैदानी खेळ खेळणाऱ्या बालकांच्या भावनिक विकास चांगल्या प्रकारे होतो. सकारात्मक विचार करण्याची शक्ती वाढते. आत्मविश्वास, सहकार्याची भावना मैदानी खेळ खेळणाऱ्या बालकांमध्ये अधिक असते. भिती वाटण्याचे प्रमाण मैदानी खेळ न खेळणाऱ्या बालकांमध्ये अधिक असते. अतिरिक्त ऊर्जा मैदानी खेळात वापरली जात नाही. तर मग अशी मुले इतर मुलांना मारणे, ढकलणे, आई-वडिलांवर जोरजोरात ओरडणे, चिडणे अशा समस्या मैदानी खेळ न खेळणाऱ्या मुलांमध्ये अधिक असतात. मैदानी खेळ न खेळणाऱ्या मुला मुलींमध्ये वजन वाढीचे प्रमाण (लड्डपणाचे प्रमाण) अधिक दिसून आले. मुला मुलींमध्ये उंचीच्या तुलनेत कुठलाही फरक आढळून आला नाही. फक्त वय वर्ष ९ च्या खेळणाऱ्या मुलींची उंची जास्त आढळून आली. मैदानी खेळ न खेळणाऱ्या बालकांमध्ये सतत आजारी पडण्याचे प्रमाण हे जास्त असते. मित्र मैत्रीणींमध्ये मिसळणाऱ्याचे प्रमाण हे मैदानी खेळ खेळणाऱ्यांमध्ये अधिक असते. मैत्री करणे, समुहात राहणे आवडते. सामाजिक सहभाग दर्शविण्याचे प्रमाण हे मैदानी खेळ खेळणाऱ्यांमध्ये अधिक असते. या निष्कर्षावरून असे निदर्शनात येते की, बालकांच्या विकासात मैदानी खेळाची प्रमुख भूमिका आहे.

सूचना व शिफारशी :

- १) संगणक व मोबाईल या साधनांचा अतिरेक टाळून बालकांना मैदानाकडे वळवावे.
- २) मैदानी खेळाचा स्तर वृद्धिंगत करण्यासाठी पोषक शालेय व कौटुंबिक वातावरण निर्माण करणे.
- ३) पालकांनी वारंवार अभ्यासाची उजळणी न गिरविता मिळणाऱ्या फावल्या वेळात मैदानी खेळ, इतर छंद जोपासावे.
- ४) शासनाने मैदानी खेळ खेळण्याकरीता मोकळी जागा, बालउद्यान उपलब्ध करून द्यावी.
- ५) मैदानी खेळाचे महत्त्व शिक्षक व पालकांनी मुलांना वारंवार सांगावेत.
- ६) शालेय स्तरावर मैदानी खेळाचे तास नियमित होत आहे का ? या कडे शासनाचे लक्ष असावेत.

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तालुकाक्रिडा अधिकाऱ्यांच्या कार्यप्रणालीचे चिकित्सात्मक अध्ययन

डॉ. सचिन सुरेश महल्ले

डॉ. राजेंद्र गोडे इन्स्टिट्यूट ऑफ टेकनॉलॉजी अँड रिसर्च, अमरावती.

प्रस्तावना :

१९७० मध्ये शिक्षणमंत्री मा. श्री. मधुकरराव चौधरी यांनी मार्गदर्शन धोरण तयार केले. शिक्षणपद्धतीतून भौतिक विकास होत असतांना व्यक्तीनिष्ठा राष्ट्रीय उद्दिष्टांची व आकांशाची आणि जागतिक परिस्थितीमधील आव्हानांशी सुसंगत राखण्यासाठी हे धोरण आखल्या गेले. गुणवत्ता वृद्धिच्या कार्यक्रमात कार्यानुभव, समाजसेवा, शिक्षण, खेळ व क्रीडा व युवक कल्याण ह्या विषयाचे कार्यक्रम सर्व स्तरावर विकसित करण्याकडे व राबविण्यात विशेष लक्ष पुरवावे असा उल्लेख केला आहे. तसेच खेळ व क्रीडा क्षेत्रात विशेष असलेल्या मुलांचा शोध आणि विकास करण्याचे उपाय योजिले जातिल याचाही उल्लेख केला आहे. या कार्याची व्याप्ती सुव्यवस्थित रीतीने सांभाळण्यासाठी इ.स. १९७० साली स्वतंत्र क्रीडा व युवक सेवा विभाग आणि संचालनालय स्थापन करावे लागले.

महाराष्ट्र राज्याचे क्रीडा धोरणानुसार (१९९६) जिल्ह्याच्या ठिकाणी विविध खेळाडूंच्यासाठी सुविधा निर्माण करण्यात आल्या आणि जिल्हा क्रीडा संकुलाची स्थापना करण्यात आली. ह्या जिल्हा क्रीडा संकुलात एक जिल्हा क्रीडा अधिकाऱ्याची नेमणूक करण्यात आली. त्याचप्रमाणे पथदर्शी प्रकल्प म्हणून प्रत्येक जिल्ह्यामध्ये एका तालुक्यात क्रीडा प्रशिक्षण केंद्र सुरू करण्यास मान्यता देण्यात आली. याच प्रमाणे तालुक्यात तालुका क्रीडा संकुलाची स्थापना करण्यात आली. ज्यामध्ये विविध खेळांच्या किमान सुविधा उपलब्ध करून देणे हा उद्देश होता. राज्यामध्ये सर्व ठिकाणी क्रीडा सुविधा उपलब्ध करून देण्याकरीता (१) तालुका क्रीडा संकुल (२) जिल्हा क्रीडा संकुल आणि (३) विभागीय क्रीडा संकुलाची स्थापना करण्यात आली.

क्रीडा संकुलाची कार्य प्रणाली : तालुका, जिल्हा आणि विभागीय क्रीडा संकुल समितीच्या माध्यमातून क्रीडा संकुलाची कार्य चालते. तालुका, जिल्हा आणि विभागीय क्रीडा संकुलाचे अध्यक्ष अनुक्रमे तहसिलदार, जिल्हाधिकारी आणि विभागीय आयुक्त (महसुल) असतात.

तालुका क्रीडा संकुल समितीची कार्य व अधिकार :

- १) तालुका संकुल समितीची नोंदणी करणे संबंधित तालुक्यातील उपलब्ध क्रीडा सुविधांचा अभ्यास करणे आणि स्थानिक लोकप्रिय खेळांना चालना देण्याच्या दृष्टिने क्रीडा सुविधा निर्माण करण्याचे नियोजन करणे, प्रकल्प, अहवाल तयार करणे मान्यता घेणे, प्रकल्पाच्या अंमलबजावणीचे सनियंत्रण करणे.
- २) तालुका क्रीडा निधी उभारणे व व्यवस्थापन करणे, तालुका क्रीडा संकुल केंद्रातर्गत घेण्यात आलेल्या क्रीडा सुविधांची देखभाल करणे व दुरुस्तीकरणे.
- ३) तालुका स्तरावर विविध खेळांचा प्रचार व प्रसार करणे, क्रीडा प्रशिक्षण शिबीर क्रीडा स्पर्धा व युवक कल्याण विषयक उपक्रम राबविणे, क्रीडा चर्चा सत्रे व कार्यशाळेचे आयोजन करणे.
- ४) तालुका क्रीडा संकुल समिती अंतर्गत बांधकाम समिती, क्रीडा विकास समिती व्यवस्थापन समिती इत्यादीची स्थापना करणे.
- ५) क्रीडा तालुका क्रीडा विकास निधी संकलित करणे.

इत्यादी कार्य तालुका क्रीडा अधिकाऱ्याच्या अंतर्गत येतात. कार्यकर्ता स्वतः क्रीडा क्षेत्राशी जवळचा संबंध असल्यामुळे व त्यासोबत त्याने आपल्या सर्व अभ्यास शारीरिक शिक्षणात केला असल्यामुळे शोधकर्त्याला तालुका क्रीडा अधिकाऱ्याच्या कार्यप्रणाली मध्ये काही त्रुट्या आढळून आल्या म्हणून शोधकर्त्याने तालुका क्रीडा अधिकाऱ्याच्या कार्य प्रणालीचे अध्ययन करण्याकरीता ही समस्या शोधकार्यासाठी निवडली.

समस्याकथन : “तालुका क्रीडा अधिकारी व तालुका क्रीडा संकुलाची कार्य प्रणालीचे चिकित्सात्मक अध्ययन” ही समस्या शोधकर्त्याने निवडली. या समस्येच्या निवडीबाबत शोधकर्त्याचे खालील उद्देश होते.

समस्येचे उद्देश : या समस्येचे उद्देश "तालुका क्रीडा संकुलाच्या क्रीडा अधिकाऱ्याच्या कार्यप्रणालीचे चिकित्सक अध्ययन" करण्याचे होते.

समस्येचे महत्व : ही समस्या या करीता महत्वपूर्ण होती कारण या समस्येमुळे तालुका क्रीडा अधिकारी आपल्या कार्याच्या प्रती किती कर्तव्यनिष्ठ आहे हे समजणार होते.

परिकल्पना : शोधकर्त्यांनी अशी परिकल्पना केली होती की तालुका क्रीडा अधिकाऱ्याची कार्यप्रणाली दोषपूर्ण आहे ते आपल्या कार्यप्रणाली बदल उदासीन आहे.

या समस्येचे खालील घटक अनियंत्रित होते.

- १) तालुका क्रीडा अधिकारी प्रश्नावलीचे उत्तर देण्याचे टाळत होते.
- २) तालुका क्रीडा अधिकारी प्रश्नावलीचे उत्तरे खरे देतात की खोट देतात. यावर शोधकर्त्यांचे नियंत्रण नव्हते.

संशोधन कार्यप्रणाली :

माहिती गोळा करण्याची साधने :

माहिती गोळा करण्याकरीता शोधकर्त्यांनी तालुका क्रीडा संकुलाच्या क्रीडा अधिकाऱ्याच्या कार्यप्रणालीची माहिती गोळा करण्याकरीता खालील प्रश्नावली तयार केली.

प्रश्नावली :

- १) तालुका अधिकाऱ्याचे नाव : -----
- २) शैक्षणिक पात्रता : -----
- ३) क्रीडा पात्रता :-----
- ४) तालुका क्रीडा अधिकाऱ्याच्या कार्यात कोणकोणते कार्य येतात :-----
- ५) तालुका अधिकाऱ्याने कोणकोणत्या खेळात प्राविण्य मिळविले आहे
- ६) नियुक्तीचे वर्ष :-----
- ७) तालुका क्रीडा अधिकाऱ्याच्या कार्याची सुची :-----
- ८) तालुका क्रीडा संकुलाच्या जागेचे क्षेत्रफळ :-----
- ९) तालुका क्रीडा संकुलातील मैदानाची सुची :-----
- १०) मैदानाचा दर्जा :-----
- ११) तालुका क्रीडा अधिकारी कोणकोणत्या स्पर्धांचे आयोजन करतो :-----
- १२) आयोजनाचा खर्च कोण करतो :-----
- १३) तालुका क्रीडा संकुलात क्रीडा शिबीरांचे आयोजन करण्यात येते काय? :-----
- १४) तालुका क्रीडा संकुलात खेळांचे शासकीय प्रशिक्षक आहेत काय? :-
- १५) तालुका क्रीडा संकुलात पाणी विज पुरवठा पुरेसा आहे काय?
- १६) तालुका संकुलात तयार खेळाडूंनी कोणकोणत्या खेळात जिल्हा राष्ट्रीय स्तरावर प्राविण्य मिळविले काय?
- १७) क्रीडा संकुलात खेळाडूंना विनामुल्य प्रवेश देण्यात येतो काय?
- १८) तालुका क्रीडा अधिकाऱ्याच्या कार्यातर्गत कोणकोणते कार्य येतात? नमुद करावे :

स्वाक्षरी

तालुका क्रीडा अधिकारी

वरील सर्व प्रश्नांची उत्तरे शोधकर्त्यांनी स्वतः तालुका क्रीडा अधिकाऱ्याची मुलाखत घेऊन प्राप्त केले.

तालुका क्रीडा अधिकाऱ्यांच्या प्रश्नावलीच्या उत्तरांची विश्लेषण :

- १) तालुका क्रीडा अधिकाऱ्यांची नेमणूक नियमानुसार झाली.
- २) तालुका क्रीडा अधिकाऱ्यांच्या अंतर्गत येणारे कार्य तालुका क्रीडा संकुल बांधकामा करीता जागेचा शोध घेणे व तसा अहवाल पाठविणे, सभेचे आयोजन करणे, स्पर्धेचे आयोजन करणे, लोकोपयोगी सोयी सुविधा निर्मिती करणे व कार्यालयीन कामाची अंमलबजावणी करणे.

- ३) तालुका क्रीडा संकुलाची जागा मिळाली आहे. एकूण जागा ३ ते ४ एकर आहे.
- ४) कोणकोणती मैदाने आहेत. २०० मी. ट्रक, कबड्डी, व्हॉलीबॉल खो-खो, टेबल टेनिस, फुटबॉल हॉकी, हॅंडबॉल मैदाने उपलब्ध आहे.
- ५) मैदाने राष्ट्रीय दर्जाची आहेत.
- ६) मैदानांची निगा राखली जाते.
- ७) तालुका स्तरावरच्या स्पर्धांचे आयोजन करण्यात येते.
- ८) स्पर्धांचे आयोजन खालील खेळात करण्यात येते. कबड्डी, कुस्ती, व्हॉलीबॉल, खो-खो, मैदानी स्पर्धा, क्रीकेट, फुटबॉल, योगा इत्यादी.
- ९) स्पर्धा आयोजनार्थ वित्तीय सहाय्यता सरकार कडून प्राप्त होते.
- १०) क्रीडा शिबीरांचे आयोजन करण्यात येत नाही.
- ११) संकुलात पाणी व विज पुरवठा आहे पण तो मधामधत खंडीत होतो.
- १२) तालुका क्रीडा संकुलाच्या खेळाडुंना राष्ट्रीय स्तरावर प्राविण्य प्राप्त झाले नाही.
- १३) खेळ संबंधित पुस्तकांचे प्रकाशन झाले नाही.
- १४) तालुका क्रीडा संकुलात विनामुल्य प्रवेश दिला जातो.
- १५) तालुका क्रीडा अधिकाऱ्यांच्या कार्यातर्गत येणारे कार्य संकुलाचे बांधकाम, क्रीडा सुविधा उपलब्ध करणे, क्रीडा प्रचार व प्रसार, प्रकल्पाची देखभाल व दुरुस्ती व्यवस्थान करणे, क्रीडा विषयी उपक्रमात सहकार्य करणे, क्रीडा विकास व निरनिराळ्या खेळ स्पर्धांना चालना देणे, क्रीडा विषयक वातावरणाची निर्मिती करणे, खेळाडू घडविणे, क्रीडा संकुल कार्यकारीणीची समिती सभा आयोजन करणे वगैरे कार्य तालुका क्रीडा अधिकारी पुर्ण आस्थेने करतो.

यावरून स्पष्ट होते की, तालुका क्रीडा अधिकाऱ्यांचे काम समाधानकारक आहे.

निष्कर्ष :-

वरील सर्व विवेचना वरून शोधकर्त्यांनी असा निष्कर्ष काढला की तालुका क्रीडा अधिकाऱ्यांचे काम समाधानकारक आहे व शोधकर्त्यांनी जी परिकल्पना केली होती ती तालुका क्रीडा अधिकाऱ्यांचे कार्य समाधानकारक नाही ही परिकल्पना अस्वीकार करण्यात येत. याप्रमाणे ही शोधपत्रिका शोधकर्त्यांनी पुर्ण केली.

संदर्भ :-

- १) महाराष्ट्राचे क्रीडा धोरण २००१, महाराष्ट्र स्पोर्ट्स इन्फ्रास्ट्रक्चर डेव्हलपमेंट प्लॅन, क्रीडा सुविधा निर्माण.
- २) क्रीडा सुविधा निर्मितीसाठी आर्थिक सहाय्य योजना, शासन निर्णय शालेय शिक्षण व क्रीडा विभाग, धो. २०१२/प्र.क्र.२६०/क्री.यु.स.-१ दि. ०१/०३/२०१४.

संतुलितआहाराचा खेळाडूवर होणारा प्रभाव

प्रा.डॉ. वीणा आर. मेंदुले

विभागप्रमुख- गृह अर्थशास्त्र
विद्या विकास कला, वाणिज्य व विज्ञान महाविद्यालय
समुद्रपूरजि.वर्धा

प्रास्ताविक :

आरोग्याच्या स्थितीवर परिणाम करणारे आणि दररोजच्या जीवनावर मोठ्या प्रमाणावर परिणाम करणारे अनेक घटक आहेत. यामध्ये सर्वात महत्वाचा घटक म्हणजे संतुलित आहार होय. साध्या शब्दात संतुलित आहार म्हणजे आपण शरीरातील किती उर्जा नष्ट करत आहोत आणि शरीराला किती उर्जेची आवश्यकता आहे याविषयीची मानवाची जागृकरता होय. शरीर हे अनेक पेशीमिळून बनलेले जणू एक यंत्रच आहे त्यामुळे ह्या यंत्ररूपी शरीराला पर्याप्त इंधन दिल्यास शारीरिक, मानसिक आणि सामाजिकरित्या ते चांगले कार्य करू शकते. पोषणविषयक बाबी ह्या शरीरावर अनेक अर्थाने प्रभाव पाडतात. लोकसंख्येच्या संपूर्ण आरोग्यासाठी निरोगी आणि सुदृढ राहणे आवश्यक आहे आणि अशा संतुलित आरोग्यासाठी संतुलित आहार आवश्यक आहे. बऱ्याच लोकांमध्ये मोठ्या प्रमाणावर सार्वजनिक आरोग्यविषयक समस्या दिसून येतात. आहाराकडे दुर्लक्ष करणे, शरीराला अयोग्य सवयी लावणे तसेच व्यसन करणे अशा समस्या बहुतांश लोकांमध्ये दिसून येतात. अमेरिकेपाठोपाठ भारतात सर्वात मोठ्या आरोग्यासंबंधी समस्यांपैकी लडपणा एक मोठी समस्या आहे. दरवर्षी व्यतीत अनेक रोगग्रस्त लोकांचे वाढते प्रमाण, वाढता मृत्यु दर, रोगप्रतिकारक शक्तींमध्ये होणारी घट ह्या सर्व समस्या अनियमित आहारामुळेच दिसून येतात. लडपणा अनेक रोगांचा सर्वात सामान्य सूचक म्हणून सूद्धा ओळखला जातो. मधुमेह व हृदय रोग हे आजार देखील अनियमित पोषणामुळे निर्माण होतांना दिसून येतात. भारत लोकसंख्येमध्ये दुसऱ्या क्रमांकाचा देश आहे त्यामुळे ह्या लोकसंख्येला अनेक आजारातून वाचविण्यासाठी आहाराबाबत सज्जानी असणे आवश्यक आहे. भारत हा तरुणांचा देश म्हणून ओळखला जातो कारण इथली अर्धाच्या जवळ असणारी लोकसंख्या ही तरुण ह्या गटातील आहे. त्यामुळे ऐतिहासिक व खेळाची पार्श्वभूमी असणाऱ्या ह्या देशामध्ये चांगले खेळाडू पुढे यावेत यासाठी 'आहार' महत्वाची भूमिका बजावतो.

प्रस्तुत शोधनिबंध हा संतुलितआहाराचा खेळाडूवर होणारा प्रभाव यावर लक्ष केंद्रीत करतो. ज्यामध्ये संतुलित आहार कसा असावा व त्यामुळे खेळाडूच नव्हे तर सामान्य व्यक्तींवर देखील आहाराचा कसा प्रभाव होतो याची माहिती मिळते.

मुख्य शब्द : क्रिडा पोषण, संतुलित आहार

शोधनिबंधाची उद्दिष्ट्ये:

1. संतुलितआहाराचा खेळाडूवर होणारा प्रभाव अभ्यासणे.
2. क्रिडा पोषणाचे महत्व अभ्यासणे.

संशोधनपध्दती:

प्रस्तुत शोधनिबंधातील माहिती द्वितीय तथ्य संकलनाच्या माहितीवर आधारित आहे. ही माहिती विविध संकेतस्थळे, आहारविषयी संकेतस्थळे, पुस्तके, लेख याद्वारे गोळा केली आहे व त्याचा अभ्यासासाठी उपयोग केला आहे.

क्रिडा पोषण इतके महत्वाचे का आहे?

भारतात खेळाडू मोठ्या प्रमाणात आंतरराष्ट्रीय स्तरावर आपली उत्कृष्ट कामगिरी पार पाडत आहेत. खेळाडूंना आपल्या सर्वोत्तम प्रदर्शनासाठी प्रशिक्षणाबरोबरच योग्य पोषणाचीही आवश्यकता आहे. खेळाडूंना योग्य पोषणयुक्त आहार मिळायला हवा याबाबत जागरूकता निर्माण होत आहे. विविध संशोधनाद्वारे असे सिद्ध झाले आहे की पोषणयुक्त आहाराने स्वास्थ्य तर उत्तम राहतेच पण त्याबरोबर मानवाची कार्य करण्याची क्षमता, व्यायामक रण्याची क्षमता यावरही

प्रभाव पडतो. केवळ आहार उत्तम घेतल्याने खेळाडूत सुधारणा होणार नाही तर संतुलित आहार घेतल्याने त्यांची कार्यक्षमता वाढेल. खेळाडू जे अन्न खातो त्यातून जे उष्मांक मिळते ते खेळतांना नष्ट होत असते. त्यामुळे खेळाडूंना आहारामुळे युक्ततम उष्मांक मिळणे आवश्यक असते. संतुलित आहारानंतरगत क्रीडा पोषणामुळे खेळाडूंच्यामध्ये चपळता, वेग, शक्ती, सहनशक्ती आणि खेळाडूंची लवचिकता यामध्ये लक्षणीय बदल आढळून येतात. खेळाडूंना केवळ संतुलित आहारच महत्वाचा नाही तर संतुलित व्यायाम देखील महत्वाचे असते. क्रिडा पोषणमध्ये व्यायाम करण्यापूर्वी ग्रहण केलेला आहार आणि व्यायामानंतर संतुलित आहार घेणे आवश्यक असते. खेळाडूंनी व्यायाम करण्यापूर्वी सुमारे दोन तास आधी आहार घेणे आवश्यक असते. आणि आहारामध्ये प्रथिने, कर्बोदके व स्निग्धांचे प्रमाण विभिन्न असू शकते. याद्वारे जीवनसत्व व खनिजपदार्थदेखील प्राप्त होतात. प्रोटीन्समुळे शरीरातील स्नायुची योग्य वाढ होते. खेळाडूंच्या आहारामध्ये कर्बोदके असावे परंतु, कोलेस्ट्रॉल कमी असणारी म्हणजे कमी तेलगट पदार्थ आहारात असावेत. कर्बोदके उर्जेचे मुख्य स्रोत आहेत जे खेळाडूंना व्यायामातून कमी झालेली पोषकतत्व पुन्हा प्रदान करण्यासाठी आवश्यक ठरतात. व्यायाम केल्यानंतर आपण गमावलेली कर्बोदके पुनर्प्राप्त करणे आवश्यक असते त्यासाठी व्यायामानंतरचा आहार देखील महत्वाचाच असतो. खेळाडूंच्या खेळप्रकारानुसार प्रथिने आणि कर्बोदकांचे प्रमाण भिन्न असू शकते. त्यामुळे आहारतज्ञांच्या सल्ल्यानुसार खेळाडूंनी आहारविषयक मार्गदर्शन घेणे आवश्यक असते.

प्रत्येक व्यक्तीची आहाराची आवश्यकता उष्मांकाचा व्यय, चयापचय, आरोग्य, इत्यादीवर अवलंबून असू शकते खेळाडूंना अचूक क्रिडा पोषणाची आवश्यकता असते जेणेकरून ते आपले प्रदर्शन चांगले करू शकतील. इष्टतम पोषण हे उत्कृष्ट खेळप्रदर्शनाचे एक अविभाज्य अंग मानले जाते. तर अपुराव चुकिचा आहार खेळाडूंची क्षमता मर्यादित करू शकतो. दुर्दैवाने आजच्या संकरित युगात दर्जेदार पोषणतत्व मिळतीलच असे नाही. तरी देखील शरीराला योग्य पोषणतत्व पुरविण्यासाठी आहारतज्ञांचा सल्ला घेणे आवश्यक ठरते.

संतुलित आहाराचा खेळाडूंचा होणारा प्रभाव:

चांगल्या-संतुलित आहाराने खेळाडूंचे शरीर आकार घेते शिवाय त्यांचे जीवनमान देखील सुधारते. पौष्टिक अन्न सर्व वयोगटातील लोकांसाठी आवश्यक असते तसेच आपले आयुष्य देखील वाढण्यास मदत करते. संतुलित आहाराचा खेळाडूंच्या कार्यक्षमतेवर अनुकूल प्रभाव पडतो, तो पुढीलप्रमाणे-

1. **वजन नियंत्रण:** युक्ततम पोषण आणि संतुलित वजन उत्कृष्ट खेळाडूंचे लक्षण आहे. संतुलित आहार आपली उर्जा पातळी उच्च ठेवण्यास मदत करतो, यामुळे आपण वजन संतुलित होते. पुरेसा व्यायाम आणि युक्ततम पोषणामुळे खेळाडूंच्या शरीरातील अनेक आजारांवर प्रतिबंध होते. स्वस्थ शरीरासाठी आहारामध्ये फळे, भाज्या, धान्य, प्रथिने आणि दुग्धजन्यपदार्थ घेणे आवश्यक असते. पोषक तत्त्वे, कॅल्शियम स्निग्ध पदार्थ आहारामध्ये घेणे आवश्यक असते. या सर्वामुळे खेळाडूंचे वजन नियंत्रण होण्यास मदत होते.
2. **खेळाडूंचा विकास:** शरीराची उत्तम वाढ आणि विकास योग्य पोषणावर अवलंबून असते. काही लहान मुलांमध्ये पोषक तत्वांचा अभावामुळे त्यांच्या शरीराची योग्य वाढ होत नाही. मेरिलिन स्कूल ऑफ मेडिसिन विद्यापीठातील डॉ. मॉरेन ब्लॅक यांच्या अभ्यासानुसार 4 वर्षांपेक्षा कमी वयाच्या 33 टक्के मुलांमध्ये लोहाच्या कमतरतेमुळे अॅनिमियाचा त्रास होतांना दिसून येतो. शरीराला आहारामुळे शरीराला आवश्यक असणारे लोह देखील मिळणे आवश्यक असते. विस्कॉन्सिनच्या अर्ली चाइल्डहुड एक्सीलेंस इनिशिएटिव्ह ह्या आंतरराष्ट्रीय अभ्यासानुसार, योग्य पोषण प्राप्त करणारे मुले अधिक उत्साही आणि खेळाडू असतात आणि त्यांच्यातील बुद्धिमत्ता देखील जास्त आढळून येते. विद्यार्थ्यांमधून चांगले खेळाडू घडण्यासाठी संतुलित आहार व पोषण आवश्यक असते. संतुलित आहारामुळे मुलां-मुलींमधील कार्यक्षमता वाढीस लागते त्यामुळे चांगले खेळाडू घडू शकतात.
3. **वयावर होणारा परिणाम:** चांगले पोषण आपले आयुर्मान देखील वाढवू शकते. वय जितके जास्त तितके आपण स्वस्थ राहू शकतो. जूडिथ ई. ब्राउन यांनी न्यूट्रिशन द लाइफ सायकल पुस्तकामध्ये आहार आणि व्यायाम यासारख्या जीवनशैलीचे घटक दीर्घ आयुष्यासाठी सहाय्यक घटकांपैकी अर्धे आहेत, तर आपले अनुवांशिक योगदान 19 टक्के आहे असा निष्कर्ष काढला. एकटा क्लिनीका क्रोएशिया या वृत्तपत्राच्या डिसेंबर 2010 च्या अंकात प्रकाशित केलेल्या एका अहवालात असे आढळून आले आहे की खाद्यपदार्थांपासून बनविलेले काही पदार्थ

रोगप्रतिकार यंत्रणेसाठी खास फायदेशीर ठरतात. न्यूट्रासिटीकल्स म्हणून ओळखले जाणारे हे पदार्थ, ज्यात बरेच अँटीऑक्सिडेंट आहेत, जळजळ टाळू शकतात आणि वृद्धत्वशी संबंधित बदल घडवू शकतात. खेळाडूंना आपल्या आयुष्यामध्ये विशिष्टवयोगटापर्यंत खेळणे आवश्यक असते त्यामुळे जर योग्य वयामध्ये योग्य संतुलित आहार व पोषण मिळाले तर ते अधिक वयापर्यंत आपले चांगले प्रदर्शन खेळामध्ये देवू शकतात.

4. **रोगप्रतिकारक शक्ती वाढ:** आपली रोगप्रतिकारक प्रणाली दोन्ही पोषक घटकांवर अवलंबून असते एक प्रथिने आणि दुसरे कर्बोदके. ही पोषकतत्वे, जीवनसत्त्वे आणि खनिजे आपल्याला रोजच्या आहाराद्वारे मिळू शकतात. प्जर्नल ऑफ द स्पोर्ट्स न्यूट्रिशन पोषण 2012 च्या अंकात प्रकाशित केलेल्या महिला सॉकर प्लेयर्सचा अभ्यासामध्ये असे आढळून आले की, कमी पौष्टिक स्थिती असलेल्या गटाशी तुलना करता ज्यांनी निरोगी व संतुलित आहार घेतला त्यांनी सॉकरच्या ताणानंतर कमी ऑक्सिडेटिव्ह तणाव, सूज कमी करणे आणि चांगले प्रतिरक्षा स्थिती अनुभवली.
5. **कर्बोदकांमुळे कार्यक्षमतेत वाढ:** पाचन दरम्यान कर्बोदकांचे काही प्रमाणात रूपांतर ही शर्करेमध्ये (ग्लूकोज) विभागले जाते, जे शरीराचे प्राथमिक ऊर्जा स्रोत आहे. ह्या ग्लूकोजमुळे स्नायू मजबूत होवून व्यायाम दरम्यान ऊर्जा प्रदान करतात. उच्च-कार्बोहायड्रेट पदार्थ नियमितपणे घेणे हे देखील खेळाडूंसाठी आवश्यक असते. जे खेळाडूंची कार्यक्षमता वाढविण्यास मदत करतात. ब्रेड आणि कडधान्यासारखे पदार्थांचा आहारामध्ये वापर करणे आवश्यक असते ज्यामुळे खेळातील चपळता वाढण्यास मदत होते. अधिक शुद्ध कार्बोहायड्रेट खाद्य जसे की, पांढरी ब्रेड, जाम आणि जेली हे पदार्थ शरीरातील कर्बोदकांचे प्रमाण वाढविण्यास मदत करतात.
6. **खेळाडूंची कामगिरी आणि ग्लाइसेमिक इंडेक्स वाढण्यास मदत होते:** ग्लाइसेमिक इंडेक्स (जीआय) म्हणजे शरीरातील साखरेचे 1 ते 100 दरम्यान असणारे प्रमाणा मोजण्याचा निर्देशांक होय. युक्तम अन्न आणि द्रवपदार्थांचे सेवनाने शरीरातील रक्तातील साखरेचे प्रमाण संतुलित राहण्यास मदत होते. अतिजास्त फळांच्या सेवनाने देखील खरीरातील साखरेचे प्रमाण जास्त होवू शकते त्यामुळे आहारतज्ञांच्य सल्ल्यानेच फळ किंवा फळांचा ज्यूज घेणे फायदेशीर ठरते.
7. **खेळापूर्वी, सरावापूर्वीचा किंवा स्पर्धेपूर्वीचा आहार व त्याचा प्रभाव:** खेळापूर्वी किंवा स्पर्धेपूर्वीचा आहार हा देखील प्रमाणात घेणे आवश्यक असते. व्यायाम करण्यापूर्वी तीन ते चार तासांपूर्वी घेतलेल्या आहाराचा खेळाडूंच्या कामगिरीवर सकारात्मक प्रभाव होतो. व्यायाम करण्यापूर्वी एक ते दोन आधी स्नॅक्स घेणे देखील लाभदायक ठरू शकते. आहारातील कोलेस्ट्रॉलचे म्हणजे तेलाचे प्रमाण वाढल्यास शरीरातील चरबी वाढू शकते जो शरीराव्दारे पुढे पचनक्रिया करण्यासाठी त्रास होतो. त्यामुळे आहारामध्ये कमी चरबीचे दूध टोस्ट धू मफिन्स धू क्रम्पेट्स, फ्रुट सॅलड आणि दही, टोमाटो-आधारित सॉससह पास्ता, लो-फॅट ब्रेकफास्ट किंवा म्यूस्ली बार किंवा लो-फॅट क्रीमड भात इ.चे सेवन आहारामध्ये घेणे आवश्यक असते.
8. **खेळादरम्यान किंवा स्पर्धेदरम्यान आहार व त्याचा प्रभाव:** 60 मिनिटांहून अधिक काळ टिकवून ठेवण्यात येणा-या ब्लड ग्लूकोजची पातळी वाढविण्यासाठी आणि थकवा सहन करण्यासाठी कर्बोदकांचा आहारामध्ये वापर करणे आवश्यक असते. अनेक पोषणआहारतज्ञांचा अभ्यास असे सूचित करतो की, 30-60 ग्रॅम कर्बोदके शरीरासाठी पुरेसे आहे. ही कर्बोदके स्पोर्ट्स जेल, लो-फॅट म्यूस्ली आणि स्पोर्ट्स बार किंवा सॅन्डविचस व्हाईट ब्रेडव्दारे देखील मिळू शकतात. तसेच स्पोर्ट्स ड्रिंक, पातळ फळांचे रस आणि पाण्याचे योग्य प्रमाण आवश्यक असते. चार तासांपेक्षा जास्त काळ व्यायाम करणा-या खेळाडूंसाठी प्रति तास 90 ग्रॅम कार्बोहायड्रेटची शिफारस अनेक आहारतज्ञ करतात. त्यामुळे खेळातील कार्यक्षमता वाढीस मदत होते.
9. **खेळानंतर किंवा सरावानंतरचा आहार व त्याचा प्रभाव:** व्यायामानंतर ग्लूकोजची आवश्यकता शरीराला असते. व्यायामानंतर कर्बोदकांमधे पदार्थ आणि द्रवपदार्थ खाणे आवश्यक असते. विशेषतः पहिल्या दोन ते दोन तास व्यायामानंतर आहारामध्ये पिण्याचे रस, अन्नधान्य आणि कमी चरबीचे दूध, कमी चरबीयुक्त दूध, सॅन्डविच, पास्ता, मफिन्स धू क्रम्पेट्स, फळ आणि दही यांचा समावेश असणे आवश्यक असते. ज्यामुळे खेळाडूंची कार्यक्षमता टिकून राहण्यास मदत होते.

10. **प्रथिने आणि क्रिडा प्रदर्शनावर प्रभाव:** कर्बोदकांप्रमाणेच प्रथिने ही देखील शरीराला आवश्यक असतात. प्रथिने व्यायामानंतर उष्मांकांच्या पुनर्प्राप्तीकरिता महत्वाची मानली जातात. प्रोटीनची आवश्यकता सामान्यतरू उच्च-कार्बोहायड्रेट आहाराच्या अनुसरून पूर्ण केली जाते कारण पुष्कळशा अन्नामध्ये, विशेषतः अन्नधान्य आधारित खाद्य पदार्थांमध्ये कर्बोदके आणि प्रथिने यांचे मिश्रण असते. खेळाडूसाठी शिफारस केलेल्या प्रथिनांची संख्या सामान्य लोकांसाठी शिफारस केलेल्यापेक्षा प्रथिनांपेक्षा किंचित जास्त आहे. उदाहरणार्थ सामान्य लोकांसाठी - दररोज अनुशंसित प्रमाणात प्रथिने 0.8-1.0 ग्रॅम धू किलो वजनाची असते (60 किलो व्यक्तीने दररोज 45-60 ग्रॅम प्रथिन प्रोटीन खावे). जे खेळाडू दररोज 45-60 मिनिटे व्यायाम करतात ते दररोज शरीराचे वजनाच्या 1.0-1.2 ग्रॅम धू किलोच्या दरम्यान प्रथिने आहारांतर्गत घेणे आवश्यक असते. जे लोक दीर्घ कालावधीसाठी (एक तासापेक्षा अधिक) व्यायाम करतात किंवा ज्यांचे वजन वाढते, जसे वजन उचलणे, शरीरातील वजनाच्या 1.2-1.7 ग्रॅम धू कि.ग्रा. प्रथिने आवश्यक असतात. अनेक सर्वेक्षणात असे आढळून आले आहे की खेळाडूंनी पुरेसा प्रमाणात प्रोटिन्स घेतल्याने त्यांचे प्रदर्शन चांगले झाले आहे.
11. **क्रिडा प्रदर्शन सुधारण्यामध्ये पूरक पोषकतत्वाचा प्रभाव:** एक सुव्यवस्थित आहार शरीराला व्हिटॅमिन आणि खनिजे देत असतो. त्यामुळे आहाराबरोबरच पूरक पोषकतत्वे असणारी व्हिटॅमिन्स देखील खेळाडूंद्वारे घेण्याची शिफारस आहारतज्ञ करतात. शरीराला अपर्याप्त लोह किंवा कॅल्शियमची कमतरता असल्यास त्याचा प्रभाव खेळावर होतो. त्यामुळे व्हिटॅमिनचे सेवन करणे आवश्यक असते हे व्हिटॅमिन व कॅल्शियम, पोलिश, टॅब्लेट, कॅप्सूल, पाउडर किंवा द्रव स्वरूपात देखील वैद्यकीय सल्ल्यानुसार बाजारामध्ये उपलब्ध आहेत. यामध्ये जीवनसत्त्वे, खनिजे, कॅल्शियम टॅब्लेट जेवण पूरक टॅब्लेट, क्रिडा पोषण उत्पादने, नैसर्गिक अन्न पूरक उत्पादने ह्या प्रकारात उपलब्ध आहेत. परंतु ह्यांचा अतिरिक्त वापरामुळे शरीराला रीरावर नकारात्मक प्रभाव देखील होवू शकतो त्यामुळे आहारतज्ञांच्या सल्ल्यानुसारच त्यांचे सेवन करणे आवश्यक असते.
12. **पाणी आणि क्रिडा प्रदर्शनावर प्रभाव:** डोपींगमुळे खेळाडूंची कामगिरी आणि खेळाडूंची प्रतिमा खराब होवू शकते आणि, अतिरिक्त प्रकरणात पडून नामुश्की देखील होवू शकते शीवाय खेळाडूंचा मृत्यू देखील होऊ शकतो. जर शरीराला पाणी पिण्याची सवय व्यवस्थित असली तर खेळाडूंना डोपींगची सवल लागत नाही. व्यायाम करण्यापूर्वी, दरम्यान आणि नंतर भरपूर द्रवपदार्थ पिणे फार महत्वाचे आहे. तहानलेला होईपर्यंत पाण्याची प्रतीक्षा केल्यापेक्षा पाणी पिणे आवश्यक असते. जास्त तीव्रतेच्या किंवा उबदार वातावरणात 60 मिनिटांपेक्षा अधिक काळ इव्हेंटसाठी किंवा खेळामध्ये द्रवपदार्थांचे सेवन म्हणजेच पाणी पिणे महत्त्वपूर्ण असते. पाणी योग्य पेय आहे, परंतु, विशेषकरून उष्ण वातावरणात पाण्यासोबतच स्पोर्ट्स ड्रिंकची आवश्यकता पडू शकते. स्पोर्ट्स ड्रिंकमध्ये काही सोडियम असते, जे शरीराची कार्यक्षमता काही प्रमाणात वाढविण्यास मदत करते.

थोडक्यात,

संतुलित आहाराचा खेळाडूंवर अनुकूल प्रभाव पडतो. खेळाडूंची कार्यक्षमता वाढून त्यांची सरासरी आयुमान देखील वाढू शकते. त्यासाठी संतुलित आहारासाठी योग्य मार्गदर्शन व सल्ला घेण्याची आवश्यकता आहे.

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गोंदिया जिले की किशोरियों में भोजन ग्रहण करने संबंधी आदतें- एक अध्ययन**डॉ. जी. वाय. डोके**

एस.एस. गर्ल्स कॉलेज, गोंदिया

किशोरावस्था परिवर्तन की अवस्था है। शैशवावस्था के बाद सबसे अधिक तीव्र गति वृद्धि इसी अवस्था में होती है। अतः इस अवस्था में किशोरों के पोषण पर ध्यान देना अत्यंत आवश्यक है। किशोरावस्था में स्वस्थ खाने की आदतों का विकास करने से एक स्वस्थ, मजबूत वयस्क बनने और विकसित होने में मदद मिलती है। किशोरावस्था में बालक बालिकाओं में शशिर के वजन को संतुलित रखने हेतु अनावश्यक सजगता उत्पन्न हो जाती है। जिस कारण उनका भोजन अपूर्ण एवं असंतुलित हो जाता है। विशेषकर किशोरिया दुबली पतली छरहरी दिखना चाहती है अतः भोजन के प्रति विशेष रूप से सजग हो जाती है। किशोरावस्था में पोषक घटकों की मांग बढ़ जाती है अतः किशोरों को अपने भोजन संबंधी अच्छी आदतें विकसित करनी चाहिये।

एक स्वस्थ भोजन अच्छे स्वास्थ्य को बनाये रखने में मदद करता है। स्वस्थ आहार का पालन करना मुश्किल लग सकता है, लेकिन यह एक स्वस्थ जीवन बिताने के लिये महत्वपूर्ण है। स्वस्थ आहार वह है जो कि स्वस्थ को बनाये रखने या उसे सुधारने में मदद करता है। आपके खानपान का आपके स्वास्थ्य पर गहरा प्रभाव पड़ता है। आपके द्वारा ग्रहण किया हर प्रकार का आहार, फल, सब्जिया आपके स्वास्थ्य के लिए अलग अलग उपयोगिता रखते हैं।

आधुनिक युग की बदली हुई परिस्थितियों में समय एवं शक्ति की सीमितता अधिक महसूस होती है। स्पर्धात्मक युग में किशोरवयीन बालक बालिका मात्र पेट भरने के लिये जो उपलब्ध हो खा लेते हैं। साथ ही समय एवं शक्ति की सीमितता के कारण तैयार खाद्य पदार्थ जैसे जंक फूड, फ़ास्ट फूड, समोसा, कचोरी, पिज्जा व अन्य खाद्य पदार्थों का अधिक सेवन करते हैं। स्पर्धा बढ़ गयी है जिस कारण सुबह से लेकर रात तक किशोर अपने अभ्यास एवं करियर संबंधी अन्य कार्यों में व्यस्त रहने लगे हैं।

बदली हुई परिस्थितियों का किशोरों के अन्न ग्रहण करने संबंधी आदतों पर कुछ परिणाम हुआ है अथवा नहीं यह जानने के लिये इस विषय का चुनाव किया गया। इस अवस्था में लड़कियों में मासिकधर्म प्रारंभ हो जाता है जिस कारण उनकी लोह (आयरन) की मांग बढ़ जाती है। साथ ही किशोर एवं किशोरियों में शारीरिक विकास, लंबाई, क्रियाशीलता तथा चयापचय दर बढ़ जाता है, मासपेशियों का निर्माण, कोशिकाओं की मरम्मत, नये कोषों एवं तंतुओं के निर्माण, हार्मोन के निर्माण आदि के लिये कैल्शियम, प्रोटीन व अन्य पोषक घटक अत्यंत आवश्यक होते हैं। किंतु क्या यह सभी पोषक घटक अपने आहार द्वारा किशोरिया प्राप्त करती है? यह जानने के लिये इस विषय का चुनाव किया गया।

किशोरिया अपने सौंदर्य के प्रति बड़ी सजग होती है। वे अपना फिगर बनाये रखना चाहती है और फिगर के चक्कर में अपने आहार पर ध्यान नहीं देती। क्या किशोरिया फिगर बनाये रखने हेतु अस्वस्थ आहार का सेवन करती है? दिन में कितने बार आहार ग्रहण करती है?

उनका खाने का प्रकार एवं समय कैसा है इन सभी प्रश्नों के उत्तर ज्ञात करने हेतु इस विषय का चुनाव किया गया।

उद्देश्य

- 1) गोंदिया जिले की किशोरियों का भोजन ग्रहण करने संबंधी आदतों का अध्ययन करना।
- 2) गोंदिया जिले की किशोरिया स्वस्थ आहार लेती है अथवा नहीं इसका अध्ययन करना।
- 3) गोंदिया जिले की किशोरिया किस प्रकार के खाद्य पदार्थों का समावेश आहार में करती है इसका अध्ययन करना।
- 4) गोंदिया जिले की किशोरिया कितनी बार भोजन ग्रहण करती है इसका अध्ययन करना।

उपकल्पना

- 1) गोंदिया जिले की किशोरिया स्वस्थ आहार लेती है।

मर्यादा

- 1) प्रस्तुत अध्ययन गोंदिया जिले तक सीमित है।
- 2) प्रस्तुत अध्ययन किशोरियों तक सीमित है।

समस्या सूत्रण

प्रस्तुत अध्ययन गोंदिया जिले की किशोरियों के भोजन ग्रहण करने संबंधी आदतों से संबंधित है जिसमें गोंदिया जिले के शहरी एवं ग्रामीण क्षेत्र की किशोरियों का चुनाव किया गया। किशोरियों की आहार ग्रहण करने की आदते, आहार लेने का समय, आहार का प्रकार, वर्तमान युग की बदली परिस्थितियों का आहार ग्रहण करने पर परिणाम दिखाई देता है क्या? किशोरिया स्वस्थ आहार ग्रहण करती है अथवा नहीं? सुबह का नाश्ता प्रत्येक व्यक्ति ने अवश्य ग्रहण करना चाहिये क्या किशोरिया सुबह का नाश्ता लेती है? किन खाद्य पदार्थों का समावेश उनके आहार में अधिक होता है? इन सभी प्रश्नों के उत्तर जानने हेतु इस विषय का चुनाव किया गया। किशोरियों का सर्वेक्षण कर उपयुक्त जानकारी प्राप्त कर निष्कर्ष/परिणाम प्राप्त किये गए।

संशोधन क्षेत्र का चुनाव

संशोधन हेतु गोंदिया जिले के शहरी एवं ग्रामीण क्षेत्र का चुनाव किया गया। जिसमें आसोली, सेजगाव, हल्बी टोला, कल्पाथरी, घोटी, कोसंबटोडी, काटी, डव्वा, सालेकसा, कटंगिकला, गोंडी टोला, कामठा एवं गोंदिया का समावेश है।

निदर्शन पद्धति का चुनाव

प्रस्तुत अध्ययन हेतु यादृच्छिक नमूना पद्धति का चुनाव किया गया।

नमूने का आकार

अध्ययन की सफलता हेतु नमूने का आकार महत्वपूर्ण होता है। प्रस्तुत अध्ययन हेतु यादृच्छिक नमूना पद्धति द्वारा कुल १८० किशोरियों का चुनाव किया गया।

संकुलित तथ्यों का प्रस्तुतिकरण एवं स्पष्टीकरण

अध्ययन हेतु चयन की गई किशोरियों द्वारा प्राप्त जानकारी अनुसार ५८.८८% किशोरिया घर में बना भोजन ग्रहण करती है, २२.२२% किशोरिया घर में बना भोजन ग्रहण नहीं करती जबकि १८.८८% किशोरिया कभी कभी घर में बना भोजन ग्रहण करती है। संकुलित आहार के संदर्भ में ६९.४४% किशोरिया संकुलित आहार लेती है। जबकि २७.७७% किशोरिया कभी कभी एवं २.७७% किशोरिया संकुलित आहार कभी नहीं लेती। दिन के आहार में सुबह के नाश्ते का अपना महत्व है। प्रत्येक व्यक्ति ने सुबह का नाश्ता अवश्य करना चाहिये। प्राप्त आंकड़ों के अनुसार गोंदिया जिले की केवल ३९.४४% किशोरिया नियमित सुबह का नाश्ता ग्रहण करती है। जबकि ५५.५५% किशोरिया कभी कभी ओर ५% किशोरिया कभी नहीं सुबह का नाश्ता लेती है।

फिजिट्रिक के संदर्भ में यह पाया गया कि १०.५५% किशोरिया फिजिट्रिक लेती है। ४८.३३% कभी कभी तो ४१.११% किशोरिया कभी नहीं फिजिट्रिक लेती है।

अध्ययन द्वारा प्राप्त आंकड़ों अनुसार २९.४४% किशोरिया चॉकलेट खाती है ५५% कभी कभी एवं १५.५५% किशोरिया कभी नहीं चॉकलेट खाती है।

फास्टफूड के संदर्भ में प्राप्त आंकड़ों अनुसार ८.८८% किशोरिया फास्टफूड लेती है ६६.११% कभी कभी तो २५% कभी नहीं फास्टफूड लेती है।

उत्तम स्वास्थ्य हेतु उत्तम आहार के साथ साथ उत्तम व्यायाम भी जरूरी है। अध्ययन द्वारा प्राप्त आंकड़ों अनुसार २०% किशोरिया व्यायाम करती है ५१.११% कभी कभी व्यायाम करती है तो २८.८८% कभी व्यायाम नहीं करती।

सारणी क्रमांक १ – किशोरियों में भोजन ग्रहण करने संबंधी आदते दर्शाती सारणी

अ. क्र.	आदते	हां		कभी कभी		नहीं	
		संख्या	प्रतिशत	संख्या	प्रतिशत	संख्या	प्रतिशत
१	घर में बना भोजन ग्रहण करते हैं।	१०६	५८.८८	३४	१८.८८	४०	२२.२२
२	संकुलित आहार लेते हैं।	१२५	६९.४४	५०	२७.७७	५	२.७७
३	नाश्ता करते हैं।	७१	३९.४४	१००	५५.५५	९	५
४	फिजिट्रिक लेते हैं।	१९	१०.५५	८७	४८.३३	७४	४१.११
५	चॉकलेट खाते हैं।	५३	२९.४४	९९	५५	२८	१५.५५

६	फास्टफूड लेते हैं।	१६	८.८८	११९	६६.११	४५	२५
७	व्यायाम करते हैं।	३६	२०	९२	५१.११	५२	२८.८८

सारणी क्रमांक २ – आहार में समाविष्ट किये खाद्य पदार्थ को दर्शाती सारणी

अ. क्र.	खाद्य का प्रकार	तृण धान्य		साग सब्जी, फल		मास, मछली	
		संख्या	प्रतिशत	संख्या	प्रतिशत	संख्या	प्रतिशत
१	आहार में समाविष्ट खाद्य पदार्थ	५४	३०	६६	३६.६६	६०	३३.३३

सारणी क्रमांक २ में प्रस्तुत किये आंकड़ों नुसार ३० प्रतिशत किशोरीयों के आहार में तृण धान्य का समावेश होता है, जबकि ३६.६६ प्रतिशत किशोरीया अपने आहार में साग सब्जी एवं फल का समावेश करती हैं और ३३.३३ प्रतिशत किशोरीयों के आहार में मास, मछली का समावेश होता है।

सारणी क्रमांक ३ – दिनभर लिए जाने वाले आहार की संख्या दर्शाती सारणी

अ. क्र.	भोजन का समय	दो बार		तीन बार		तीन से अधिक	
		संख्या	प्रतिशत	संख्या	प्रतिशत	संख्या	प्रतिशत
१	दिन में कितनी बार भोजन लेते हैं।	११७	६५	५१	२८.३३	१२	६.६६

सारणी क्रमांक ३ में दर्शाये आंकड़ों अनुसार ६५ प्रतिशत किशोरीया दिन में दो बार, २८.३३ प्रतिशत किशोरीया दिन में तीन बार तथा ६.६६ प्रतिशत दिन में तीन से अधिक बार भोजन ग्रहण करती हैं।

निष्कर्ष

अध्ययन द्वारा प्राप्त आंकड़ों के आधार पर यह कहा जा सकता है कि गोंदिया शहर की किशोरीयों की भोजन ग्रहण करने संबद्ध की आदतें स्वस्थ आहार का प्रमाण देती हैं। किशोरीया घर में बना संतुलित आहार लेती हैं तथा सुबह का नाश्ता लेने का प्रमाण भी नहीं के अपेक्षा अधिक है। अधिकांस किशोरीया दिन में दो बार भोजन ग्रहण करती हैं। साग एवं फल का अधिक सेवन करने वाली किशोरीयों की संख्या ज्यादा है।

अतः यह निष्कर्ष प्राप्त होता है कि गोंदिया जिले के किशोरीयों की भोजन ग्रहण करने की स्वस्थ आदतें हैं।

संदर्भ ग्रंथ

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किशोरवयीन मुलांच्याशारीरिक विकासात योग्य आहार व पोषणाची भूमिका

प्रा.डॉ. किरण बेलूरकर

(गृहअर्थशास्त्र विभाग प्रमुख)

एम.जे.एफ. वाणिज्य, विज्ञान व

बि.आर. कला महा. भातकुली

प्रस्तावना :-

मानवी विकास आणि आरोग्याचा योग्य आहार व पोषणाशी घनिष्ठ संबंध आहे. संतुलीत पोषक आहार मनुष्याला दिर्घायुषी बनविते. उत्तम स्वास्थ्य म्हणजे केवळ आजारपासून मुक्तता नव्हे तर संपूर्ण शारीरिक, मानसिक तसेच सामाजिक विकास म्हणजे उत्तम स्वास्थ्य होय. मानवाला जिवंत राहण्याकरीता अन्नाची अतिशय आवश्यकता असते. मनुष्य कुठल्या प्रकारचा आहार ग्रहण करतो त्यावर त्याचे शरीर स्वास्थ्य अवलंबून असते. आहाराद्वारे शरीराला उष्णता किंवा शक्ती प्रदान होते. शिवाय पौष्टिक घटक ही मिळतात मनुष्याला ऐच्छिक व अनेच्छिक या दोन्ही प्रकारच्या क्रिया करण्याकरीता लागणारी शक्ती किंवा ऊर्जा आहारातून प्राप्त होते.

विज्ञानाच्या प्रगतीमुळे केवळ जिवंत राहण्याकरीता आहाराची आवश्यकता असण्याची जाणीव निर्माण झाली प्रत्येक व्यक्तीला आवश्यक असणारे पोषक घटकांचे प्रमाण वेगवेगळे असते. आहार खूप जास्त प्रमाणात किंवा कमी प्रमाणात घेतला तरी ही त्याचा स्वास्थावर वाईट परिणाम झालेला आढळून येतो. म्हणून व्यक्तीला योग्य व उत्तम पोषण करणारा आहार मिळणे गरजेचे आहे. उत्तम पोषणामुळे मानवाची हाडे मजबूत राहतात, मासपेशी क्रियाशील होतात, शरीरात रक्तसंचालन योग्य होते, रोगप्रतिकार शक्ती वाढते, मनुष्याची वाढ होते व झिज भरून निघते. तद्वतच मानसिक संतुलन राखले जावून एकाग्रता साधण्यास मदत होते.

संशोधकाची उद्दिष्टे :-

- किशोरवयीन मुलांच्याशारीरिक विकासात योग्य आहाराचे महत्व अभ्यासणे.
- किशोरवयीन मुलांना योग्य पोषणाची गरज पटवून देणे.

गृहितके :-

- किशोरवयीन मुलांच्याशारीरिक विकासात योग्य आहाराचे अनन्य साधारण महत्व आहे.
- किशोरवयीन मुलांना योग्य पोषणाची गरज असते.

संशोधन पध्दती :-

प्रस्तुत संशोधनावरीत वर्णनात्मक संशोधन पध्दतीचा अवलंब केला आहे. मानवी विकासाच्या विविध अवस्थांपैकी किशोरवयीन ही सर्वात अधिक क्रियाशील अशी अवस्था आहे या काळात संपूर्णविकास होत असल्यामुळे प्रथिने -कॅलरी अधिक प्रमाणात मिळतील असा संतुलीत आहार मिळणे आवश्यक असतो. ही अवस्था म्हणजे बाल्यवस्था व प्रौढावस्था यांचा मधला काळ होय या काळात मुलामुलींमध्ये शारीरिक विकासाच्या दृष्टीकोनातून अनेक बदल होतात मुला-मुलींमध्ये शारीरिक परिपक्वता येण्याचा हा काळ असतो त्यामुळे पौष्टिक आहाराची जास्त गरज असते. आरोग्य संपन्न जीवनासाठी आवश्यक असलेले अन्नघटक व त्यांचे प्रमाण आणि आपल्या आहारातून मिळणारे अन्न घटक व त्यांचे प्रमाण यांचे संतुलन करूनच आरोग्य रक्षणासाठी संतुलीत आहाराचे आयोजन करावे लागते. संतुलीत आहाराचे महत्व पालकांना पटत असले तरी केवळ पाश्चात्यांचे अंधानुकरण सामाजिक प्रतिष्ठा आणि आधुनिकतेच्या भ्रामक कल्पना यांच्या आहारी जावून सामाजातील सर्वच स्तरातील लोकांचे फास्टफुड कॉर्नर, पिझ्झा शॉप, फुड मॉल इत्यादी ठिकाणी बाजारात मिळणाऱ्या खाद्यपदार्थांचे आकर्षण दिवसेंदिवस वाढत आहे. त्यामुळे किशोरवयीन मुलामुलींमध्ये बाहेरचे फास्टफुड खाण्याचे प्रमाण वाढलेले दिसून येते. कमी वयात ब्लडप्रेसर, मधुमेह यासारखे आजार घेतांना आढळतात. किशोरावस्थेला परिवर्तनाची अवस्था असेही म्हणतात या अवस्थेत शारीरिक, मानसिक, सामाजिक विकासाबरोबर लैंगिक परिपक्वताही आलेली असते.

किशोरावस्थेमध्ये लागणारे आवश्यक पोषण घटक :-

या अवस्थेत होणाऱ्या जलद विकास आणि आरोग्याची सुदृढता जपण्यासाठी पोषणाकडे विशेष लक्ष द्यावे लागते. त्या करीता लागणाऱ्या पोषक घटकांचे प्रमाणे :-

कॅलरी :- शारीरिक श्रम करणाऱ्या मुलांना 2750 तर मुलींकरीता 2300 कॅलरी 13 ते 15 वर्ष वयोगटाकरीता तर 16 ते 17 वर्षे वयामध्ये मुलींना 3000 कॅलरी तर मुलांना 2400 कॅलरी लागतात.

प्रथिने :- शारीरिक विकास जलद गतीने होण्याच्या या अवस्थेत मुलांना 65 ग्रॅम तर मुलींना 55 ग्रॅम प्रथिने प्रतिदिन आवश्यक असतात.

खनिजपदार्थ :- या वयातील मुलांची विशेषतः लोह व कॅल्शियमची गरज वाढलेली असते. प्रतिदिन 800 मिली ग्रॅम कॅल्शियम हाडांच्या वाढीसाठी तर मुलींना 30-32 मि. ग्रॅम लोह आणि मुलांना 26-28 मि. ग्रॅम लोह आवश्यक असते.

जीवनसत्त्वे :- या वयात जीवनसत्त्व 'अ', फोलीक ॲसिड जीवनसत्त्व B_{12} DNA/RNA निर्मिती करिता तर हाडांच्या वाढीसाठी जीवनसत्त्व 'ड' तद्वतच मुलींना प्रजनन क्षमता विकसीत होण्यासाठी जीवनसत्त्व 'ई' मिळणे आवश्यक असते.

किशोरवयीन मुलांमध्ये अहार विषयक समस्या निर्माण होण्याची कारणे :-

- शारीरिक व मानसिक दडपण
- भावनिक परिवर्तन
- आपण मोठे झाल्याची भावना
- वजन वाढ होवू नये ही भ्रामक कल्पना
- खाणपानाच्या अयोग्य सवयी
- अपुऱ्या आहारामुळे पोषक तत्वांची कमतरता होवून रक्तक्षय होणे.
- बाह्य झगमगाटाचे आकर्षण
- अभ्यासकरतांना झोप येवू नये म्हणून अपूरा आहार घेणे.

उपाययोजना :- किशोरवयीन मुलांच्या दृष्टीने योग्य पोषक आहाराचे महत्व लक्षात घेता त्यांच्या आहारविषयक समस्यांचे निवारणार्थ काही उपाय योजना करणे क्रमप्राप्त ठरते.

- किशोरवयीन मुलांच्या समस्या जाणून त्यावर तोडगा काढून त्यांचे मनावरील दडपण कमी करावे.
- पालकांनी त्यांच्या भावना समजून घेवून त्यांच्या भावनेचा आदर करावा.
- त्यांच्या मनात असलेल्या भ्रामक कल्पना शास्त्रीय माहितीपर मार्गदर्शन करून काढून टाकाव्या.
- खानपानाच्या अयोग्य सवयी बदलण्यास त्यांना मदत करावी.
- घरी तयार केलेल्या शुद्ध सात्विक आहाराचा उपयोग करण्यास त्यांना प्रोत्साहित करावे.
- आहार व स्वास्थ्य वर्धक माहिती मिळविण्यासाठी महाविद्यालयातून कार्यशाळांचे शिक्षकांनी आयोजन करावे.
- आहारसोबतच व्यायामाचे महत्व त्यांना पटवून द्यावे.
- अपुऱ्या अयोग्य आहाराचे दुष्परिणाम त्यांना समाजावून सांगावे.
- पर्याप्त पोषक आहार मिळण्याच्या दृष्टीने गृहिणीने मुलांच्या आहारात सर्वच अन्न गटातील विविध पदार्थांचा शक्यतोवर जास्तीत जास्त समावेश करावा.

निष्कर्ष :-

- किशोरवयीन मुलांच्या मनावर दडपण असल्याने त्यांची जेवणाची इच्छा कमी होते परंतु शरीराची पोषण विषयक आवश्यकता जास्त वाढते.
- या अवस्थेत अनावश्यक सवयी लागल्याने आहारासंबंधी सवयी बदलतात.
- आहारामध्ये पौष्टिक भोज्य घटक युक्त पदार्थांचा अभाव आढळतो.
- जाहिरातीच्या प्रभावामुळे जास्त भुक् लागेल तेव्हा जंकफुडचा उपयोग मुले जास्त करतात.
- टि.व्ही. पाहतांना सतत फास्टफुड खाल्याने वजन वाढते.
- अपुऱ्या अयोग्य आहारामुळे मुलांचे योग्य पोषण होत नाही. परिणामी विकासात अडथळे येतात.
- अभ्यास करतांना झोप येवू नये म्हणून कमी खाल्यामुळे कुपोषणाची स्थिती निर्माण होते. मुलींमध्ये लोहाची कमतरता आढळते.

संदर्भ ग्रंथसूची:-

- 1) डॉ. सुरजुसेसंदिपा (2013) 'पोषण आणि आरोग्य', प्रकाशन, 'विश्व पब्लिशर्स अॅन्ड डिस्ट्रीब्युटर्स', नागपुर
- 2) डॉ. देऊस्कर आशा (2004) 'मानवी पोषण व आहार शास्त्राची मुलतत्वे' विद्या प्रकाशन रुईकर रोड, नागपुर
- 3) प्रा. वाघमारे शोभा (2008) 'पोषण आणि आहार' प्रकाशन – 'पिंपळपूरेविद्या बुक्स पब्लिशर्स', औरंगपुरा औरंगाबाद.

योग दर्शनातील प्राणायामाचे महत्त्व

डॉ. कामिनी मोहन मामर्डे

(एम.पी.एड. पी.एच.डी.)

शारीरिक शिक्षण संचालिका,

राजे छत्रपती कला महाविद्यालय,

धामणगाव बढे, जि. बुलडाणा.

प्रस्तावना (Introduction) :-

योगशास्त्र हे भारतीय संस्कृतीचे फार पूर्वीपासून एक अविभाज्य अंग मानले गेले आहे ऋषींनी अनेक शतकांच्या साधनेने सांगितलेल्या योगशास्त्रातील आसने आणि क्रिया यामध्ये उत्तम आरोग्य राखण्याच्या आणि रोगांवर मात करण्याच्या दृष्टीने अनेक शतकांमध्ये सुधारणा घडवून आणली गेली आहे.

उत्तम जीवन जगण्याचा एक शास्त्रशुद्ध आणि म्हणजे योग होय. मन आणि भावना यावर नियंत्रण करित असतांनाच आपली कार्यक्षमता प्रभावीपणे वाढविण्यासाठी कार्य योगाच्या माध्यमातून केले जाते.

योगाने उत्साह, सुदृढ शरीर, आत्मविश्वास वाढतो. प्राणायामामुळे मानसिक, शारीरिक, व बौद्धिक बदल झालेला आढळतो. प्राणायामामुळे श्वसनावर नियंत्रण आणणे याचा मुख्य उद्देश आहे. यम, नियम, आसन, प्राणायाम हे बहिरंग योग्य आहेत. या बहिरंग योगातून अंतरंग योगाकडे जाण्याचा प्राणायाम हा महत्त्वाचा टप्पा आहे. प्राणायाम म्हणजे प्राण शक्तीचा विस्तार होय.

योग म्हणजे काय?

शरीर, मन, इच्छा, विचार या सर्व शक्तीचे गठबंधन म्हणजे योग होय.

अष्टांग योग :-

अष्टांगयोगामुळे वैयक्तिक व सामाजिक समरसता शारीरिक स्वास्थ्य, बौद्धिक पातळी, मानसिक शांती, आत्मीक आनंदाचा अनुभव येवू शकतो. यम, नियम, आसन, प्राणायाम, प्रत्याहार, धारणा, ध्यान व समाधी ही योगाची आठ अंग आहेत.

अष्टांग योग केवळ योगींसाठी नसून जीवनात स्वयंपूर्ण सुखी होवू इच्छिणाऱ्या व्यक्तींसाठी आहे.

प्राणायाम :-

तास्मिन् सति श्वास प्रश्वासयोगति प्राणायाम

१. श्वसन याला पुरक म्हणतात.

२. अच्छवसन याला रेचक म्हणतात. (वायुने रिक्त करणे.)

३. श्वास रोखणे याला कुभक म्हणतात. (श्वास घेणे व काढणे)

प्राणायामामुळे होणारा प्रभाव :-

प्राणायामाची प्रक्रिया पूर्ण करण्यास श्वसन संस्था भाग घेत प्राणायामाने श्वसनतंत्राचे सर्व तंत्राचे सर्व भाग क्रियाशील होतात. हृदयातून बाहेर टाकल्या जाणाऱ्या रक्ताचा दाब वाढलेला असतो. शारीरिक श्रम जास्त प्रमाणात झाल्यामुळे रक्तदाब वाढतो. रक्तदाब वाढल्याने शरीराला अत्याधीक ऑक्सीजनची आवश्यकता पडते. प्राणायाम प्रक्रियेने कार्बनडाय ऑक्साईडच्या तुलनेत ऑक्सीजनचे प्रमाण वाढत जाते. त्यामुळे रक्त शोधन प्रक्रियेत वृद्धी होते आणि शरीरातल्या प्रत्येक कोशीकाला आवश्यक ऑक्सीजनची मात्रा मिळते. अशाप्रकारे प्राणायामच्या प्रक्रियेने कोशीका आणि अंगात होणारी नेकोसिस किंवा भरण्याच्या प्रक्रियेला रोखता येते. प्राणायामच्या प्रक्रियेद्वारे कपालभाती, अनुलोम विलोमद्वारे रक्तदाबावर नियंत्रण आणता येते. मधुमेह हा एक घातक आजार आहे. मधुमेहामुळे रक्तात ग्लुकोजची मात्रा अधिक वाढवते, जी उत्पत्ती कमी होते व कमी हायडेटॅंडाचे पचन ठिक होत नाही ह्या मधुमेह रोगानी प्राणायाम, कपालभाती योग मुद्रासन सशवाने सकारात्मक परिणाम जाणवू शकतो.

थायरॉईड ग्रंथीच्या स्त्राव व रोगावर प्राणायामाचा प्रभाव शरीरातील सर्व आवश्यक अस्थी, मांस, मस्तीष्क इत्यादी ज्या ऑक्सीडेशनच धातीया पचन होतं, त्या थायरॉईडचे हारमोन सहायक असतात. शरीरात गॅंमकोडांच ज्वलन एक होतात. ग्लायकोडामुळे ग्लुकोजच निर्माण कोलेस्टॉल आदी चरबीस पचन शरीरात प्रोटिन्स पचन त्यांच्या पचनाने नायट्रोजन फॉस्फरस आदी निधन व हृदय याच ग्रंथीवर निर्भरअस्ता ग्रंथाच्या स्त्रावात कश जास्त धडधडन शरीराच्या धातुचे प्रारंभ होतो. अल्प स्त्रावाने शरीर स्थूल कोलेस्टॉलची वृद्धी व शरीराची चयापचनाची क्रियाशील होते. प्राणायामामुळे या रोगांवर रोख आणता येते. नियमित योग, कपालभारती, अनुलोमविलोम, प्राणायाम केल्याने रोग काही प्रमाणात आटोक्यात आणता येते.

प्राणायामामुळे होणारे लाभ :-

१. प्राणायाम शरीर सुव्यवस्थीत माध्यमाने चाललेली क्रिया आहे.
२. प्राणायाम ही एक चयापचनाची प्रक्रिया आहे, त्यामुळे शरीरातील रक्त भिसरण व सुरळीत होते.
३. प्राणायामामुळे अंत स्त्रावी ग्रंथीचे कार्य संतुलीत व सुरळीत होते.

४. नाडी विज्ञानाद्वारे आपणास अनुलोमविलोम एक-एक नलीकेतील श्वास घेण्याच्या प्रक्रियेद्वारे मेंदूतील संतुलन राखण्याचा फायदा होतो.
५. श्वासगती हृदयगती आणि मेंदूनलिका तंत्राच्या गतीने एक घनिष्ठ बंधन आहे. उच्च रक्तदाब सामान्य होत. रक्तातील साखर संतुलीत राहते. हृदयाची गती सामान्य होते.
६. शेवटी प्राणायाम हे आध्यात्मिक प्रगतीचे व शरीर निरोगी राहण्याचे सर्वात सोपे व स्वस्त साधन आहे.

निष्कर्ष :-

उपरोक्त सर्व तथ्यामधून हे सिद्ध होते की, सर्व आजारापासून दूर राहण्याकरीता प्राणायाम सहाय्यक ठरतो. वर्तमान परिस्थितीत प्राणायामाचा प्रसार व प्रचार यांचे चित्र चांगले बघायला मिळत आहे, पण याचा खरा फायदा तेव्हा होईल जेव्हा प्राणायाम योग विहित पध्दतीत केला जाईल.

संदर्भ सूची :-

१. स्वामी रामदेव बाबा, प्राणायाम रहस्य
२. मराठी क्रीडा मासिक, विश्वमैदान
३. योग प्रकाश जनार्दन स्वामी योगाभ्यासी मंडळाचे मुखपत्र
४. डॉ. एस. रानडे, “आयुर्वेद आणि योगा थेरेपी”, पुणे अनमोल प्रकाशन

चाळीशीनंतरचे महीलांचे आरोग्य....

प्रा: सौ प्रिया खोरगडे

संत गाडगे महाराज महाविद्यालय वलगाव

गृहार्थाशास्त्र विभाग

घरातील जवाबदारी, घरातील लोकांचे आरोग्य सांभाळणारी स्त्री स्वताच्या आरोग्यबाबत मात्र बरेजदा फारच उदासीन असते अगदीच सहन होण्या पलीकडची परीस्तीती निर्माण झाली तरच ती दवाखान्याची पायरी चढेल. मुलांचे शिक्षण, नौकरी, जेष्ठेची जवाबदारी, इतरांचे आजारपण यातच स्त्रिया एवढ्या गुंतून पडतात कि स्वताच्या आरोग्य कडे त्यांना लक्ष द्याला वेळच मिळत नाही किंवा आपणही माणूस असून आपला शरीरही कुरबुर करते हे त्यासोयीस्कर रित्या विसरतात.

कुटुंबाची काळजी घेणारी महीला कायम आपल्या आरोग्य कडे दुर्लक्ष करते ती जागृत व्हावी आणि समाजातही तिच्या आरोग्यबाबत संवेदनशीलता निर्माण व्हावी हे गरजेचे आहे आहार चांगल्या सवयी आणि वैद्यकीय सल्ला या त्रीसूत्रीवर महील्यंछे आरोग्य टिकणे आवश्यक आहे. आज महीला स्वतःचे वेगळे अस्तित्व निर्माण करण्याचा प्रयत्न करित आहेत. या धकाधकीच्या जीवनात महीलांनी कामा सोबत आरोग्य कडे ही लक्ष देणे गरजेचे झाले आहे. चुकीचा आहार-विहार समाजातील रुढी परंपरा, अंधश्रद्धा, वैद्यकीय सुविधांचा अभाव व वैयक्तिक आरोग्या कडे दुर्लक्ष होत आहे. महीलात मधुमेहाचे प्रमाण अलीकडे वाढत आहे. कर्करोग ही सुद्धा समस्या बनली आहे. सध्याच्या बदलत्या जीवन शैली मुळे स्तनांचा कर्करोग गर्भशयाचा कर्करोग अश्या विविध आजारांना महीलांना तोंड द्यावेलागत आहे.

स्त्रियांना आजार होण्याचे प्रमुख कारणे :-

पोषणसत्वरहीत आहाराचे सेवन करणे, व्यायाम अभाव, अधिक तेलकट पदार्थ, चहा, कॉफी यांच्या अतिरेक्यांमुळे विकारांचे उत्पत्ती होते. स्वताच्या आरोग्य कडे दुर्लक्ष करण्या मुळे शाररीरीक श्रमाचा अभाव, बैठी जीवन पद्धती मुळे, उशिरा होणारे लग्न, आज मुलीत तिशीच्या आसपास लग्न करण्याचे प्रमाण वाढले आहे म्हणजेच वयात आल्या पासून लग्न होई पर्यातांचा टप्पा चांगला लांबला आहे या कालावधीत महीलांना आरोग्याशी संबंधित विविध बाबींना तोंड द्यावे लागते म्हणून नियमित व्यायाम केल्याने स्नायूंच्या वस्तूमानात वाढ होतेच, शिवाय कॅलरी खर्च होऊन चयापचय सुधारते. लडपणा मुळे हृदयरोग, मुधामेयासारखे अनेक रोग बळावण्याची शक्यता असते. वयाच्या चाळीशीनंतर हाडांची घनता कमी होऊ लागते आणि पन्नाशी नंतर ही क्रिया अधिक वेगाने होते याच कारणाने वयस्कर व्यक्तींची हाडमोडण्याची शक्यता ज्यास्त असते. वजन उचण्याचे व्यायाम केल्याने सशक्त आणि निरोगी रहायला मदत होते.

तुमच वय कितीही असो; थोडीफार दमछाक करणारे व्यायाम जर नियमित केले तर हृदयाच आणि फुफुसांचे अरोग्य सुधारत तरुण माणसापेक्षा वयस्क व्यक्तींना याचे फायदे उशिरा दिसतील पण दोघांना ही सारखेच फायदे मिळतील.

परमेश्वराने माणसाला शरीर फुकट दिले आहे. त्यासाठी या शरीरावर खर्च कारायला शिकून चांगल्या गोष्टी शरीरात टाकल्या पाहिजेत. दरोज चाळीस मिनट स्वतासाठी द्यावे त्यातून व्यायाम व शरीराची आवश्यक काळजी घ्या.

संदर्भ सूची

- 1) धन्वंतरी घरोघरी ---- डॉ. हु. वी. सरदेसाई / डॉ. अनिल गांधी
- 2) आहार गाथा ----- डॉ. कमला सोहोनी
- 3) फिट फॉर ५०+ ---- सुभाष जोशी

अमरावती विभागातील कनिष्ठ महाविद्यालयातील विद्यार्थ्यांच्या पालकांची शैक्षणिक पात्रता व त्यांचा पाल्यांचे खेळात सहभाग व न सहभागी होण्याच्या स्थितीचे विवेचन

१. डॉ. मनोज व्यवहारे, आर्ट्स कॉलेज बुलडाणा. २. डॉ. प्रविण चंद्रभान डाबरे
श्रीपाद कृष्ण कोल्हटकर महाविद्यालय जळगांव जामोद

प्रस्तावना

शालेय शिक्षणात 'शालेय क्रीडा' 'शारीरिक शिक्षण व आरोग्य' या विषयाचा समावेश करण्यात आला. त्याचे मुख्य कारण शिक्षण पध्दतीची रचना करणाऱ्या विद्वानांनी विद्यार्थी जीवनात खेळाचे व शारीरिक शिक्षणाचेही महत्त्व आहे हे मान्य केले होते. 'शिक्षण म्हणजे व्यक्तीचा सर्वांगीण विकास' या अर्थाने व्यक्तीच्या सर्वांगीण विकासात जे घटक येतात त्या दृष्टीकोनातून ज्ञान, आकलन कौशल्य, उपयोजनक्षमता, अभिरूची व अभिवृत्ती रसग्रहण अशा पाच घटकांचा समावेश केला जातो. या सर्व घटकांना विचारात घेऊन शिक्षणाच्या काही प्रमुख घटकांचा विचार केला आहे. ज्ञानप्राप्ती, मानसिक प्रवृत्तीचा विकास, व्यावहारिक कार्यक्षमता, व्यक्तीगत पात्रतेचा विकास, प्रतिभा व सृजनशिलतेचा विकास, राष्ट्रीयत्व व सामाजिक सौंदर्यभिरूची व रसिकता यांचा विकास, संस्कृतीचा विकास हे आध्यात्मिक व नैतिक मूल्यांचे संस्कार होय.

खेळ हा कोणत्याही देशाच्या संस्कृती व सामाजिकतेचे प्रतिक आहे. खेळ व क्रीडा ही माणसाची मुलभूत प्रवृत्ती असल्यामुळे ज्या ज्या वेळी मनुष्याला मनोरंजन वेळेचा सदुपयोग व करमणूकीसाठी वेगवेगळ्या खेळाद्वारे मनुष्य रिकाम्यावेळी आपले मनोरंजन खेळाद्वारे करित आलेला आहे. प्राचीन वैदिक काळातसुद्धा मनुष्याने खेळाद्वारे आपले आयुष्य वाढविण्याचा प्रयत्न केलेला दिसून येतो. त्याकाळी त्याच्या शरीराला आवश्यक असणाऱ्या गरजा दैनंदिन कार्यातून व्यायाम न करतासुद्धा उपजीवीकेच्या माध्यमातून त्याचे शरीर बलवान व सशक्त होत होते. स्वसंरक्षणासाठी व कुटूंबाच्या सुरक्षेसाठी त्याने शस्त्रविद्या शिकण्याचा प्रयत्न केला, ज्याद्वारे आपल्या शत्रुंवर व प्रतिद्वंद्वींवर विजय प्राप्त करण्यासाठी काही प्रमुख युद्ध कौशल्याचे प्रशिक्षण घेऊन स्वतःला आत्मनिर्भर करण्याचा प्रयत्न करत होता. ज्यामध्ये प्रामुख्याने तिरंदाजी, अश्वरोहण, धावणे, पोहणे, कुस्ती या खेळ क्रीडांचा समावेश होता. त्यानंतर विविध धार्मिक व सांस्कृतिक कार्यक्रमात काही बैठे खेळ सुद्धा खेळल्या जात असत ज्यामध्ये कवड्या, सोगट्या, प्राण्यांची लढाई व मैदानी खेळ, तसेच ऋग्वेदांच्या काळात धार्मिक विधि करत असतांना होमहवन प्रसंगी घोड्याच्या व रथांच्या शर्यती आयोजित केल्या जात असे. काही उत्सवाप्रसंगी नृत्य व क्रीडा स्पर्धांचे आयोजन होत असे.

समस्येचे कथन:

'अमरावती विभागातील कनिष्ठ महाविद्यालयातील विद्यार्थ्यांची शारीरिक क्षमता व विद्यार्थ्यांच्या पालकांचे उत्पन्न गट व त्यांचातील खेळात सहभाग व न सहभागी विद्यार्थ्यांचे आर्थिक स्थितीचे विवरण'

अध्ययन क्षेत्र:

प्रस्तूत अध्ययना करिता विदर्भातील अमरावती विभागातील पाचही जिल्ह्यांची (अमरावती, अकोला, बुलडाणा, वाशीम व यवतमाळ) अध्ययनक्षेत्र म्हणून निवड करण्यात आली. येथील उच्च माध्यमिक विद्यालयेव कनिष्ठ महाविद्यालये यातील ११ वी व १२ वी च्या विद्यार्थ्यांचा समावेश करण्यात आला.

समस्येचे उद्देश

खेळणाऱ्या व न खेळणाऱ्या विद्यार्थ्यांच्या पालकांचे शैक्षणिक अर्हतेचे तुलनात्मक विवेचन करणे.

समस्येचे महत्त्व

प्रत्येक विद्यार्थ्यांचे खेळणाऱ्या व न खेळणाऱ्या विद्यार्थ्यांच्या पालकांचे शैक्षणिक अर्हतेत फरक असू शकेल. कारण या घटकांवर वंशानुक्रम, वातावरण इत्यादी घटकांचा प्रभाव असू शकतो.

परिकल्पना

संशोधनकर्ता अशी परिकल्पना करतो की, खेळणाऱ्या विद्यार्थ्यांच्या पालकांचे शैक्षणिक अर्हतेत फरक असू शकेलही न खेळणाऱ्या विद्यार्थ्यांच्या पालकांपेक्षा जास्त दिसून येईल.

नियंत्रित घटक

- केवळ अमरावती विभागांतर्गत कनिष्ठ महाविद्यालयातील विद्यार्थ्यांनाच अध्ययनाकरिता निवडण्यात आले.
- प्रस्तुत अध्ययन अमरावती विभागातील काही निवडक अनुदानीत, विनाअनुदानीत व कायम विनाअनुदानीत कनिष्ठ महाविद्यालयाच्या विद्यार्थ्यांपर्यंत सिमित ठेवण्यात आले.
- सदर अध्ययनात विद्यार्थ्यांचे वयोगट १६ ते १८ वर्षे होते.

अनियंत्रित घटक

- विद्यार्थ्यांच्या दैनंदिन व्यवहारावर बंधन नव्हते.
- विद्यार्थ्यांचा भौगोलिक, सामाजिक, आर्थिक स्तर इत्यादीचा विचार करण्यात आला नाही.
- विद्यार्थ्यांचे राहणीमान, आहार व विहार यावर कुठलेही नियंत्रण नव्हते.

व्याख्या:-

खेळणारे विद्यार्थी

जे विद्यार्थी कोणत्याही प्रकारच्या खेळात त्या खेळाचा शालेय स्पर्धेत अंतर्भाव आहे अशा आंतरशालेय तालुका स्तरापासून ते आंतरराष्ट्रीय स्तरापर्यंत विविध स्तरावर खेळात सहभागी होतात, त्यांना खेळणारे विद्यार्थी म्हणून संबोधले जाईल.

नखेळणारे विद्यार्थी

जे विद्यार्थी कुठल्याही प्रकारच्या खेळात आंतरशालेय तालुकास्तरावर सुध्दा सहभागी होणार नाहीत अशा विद्यार्थ्यांना न खेळणारे विद्यार्थी म्हणून ओळखले जाईल.

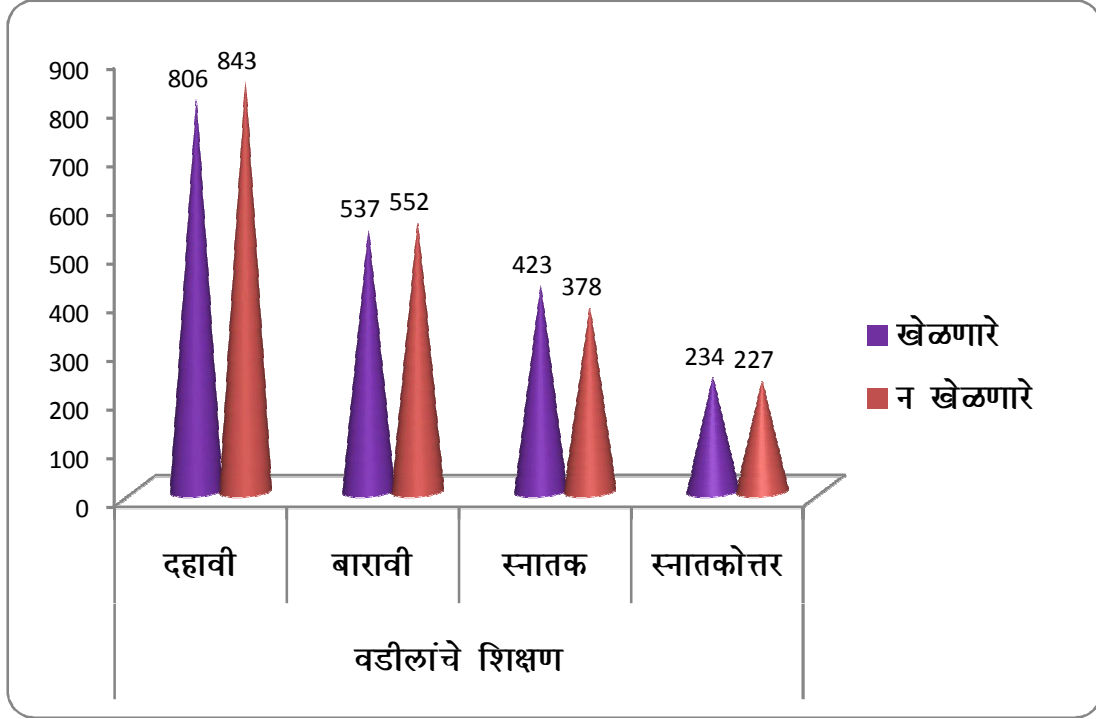
सारणी क्रमांक १

वडीलांचे शिक्षण संबंधी माहिती दर्शविणारी सारणी

	वडीलांचे शिक्षण संबंधी माहिती दर्शविणारी सारणी				एकूण
	दहावी	बारावी	स्नातक	स्नातकोत्तर	
खेळणारे	८०६ (४०.३%)	५३७ (२६.९%)	४२३ (२१.२%)	२३४ (११.७%)	२००० (१००%):
न खेळणारे	८४३ (४२.२%)	५५२ (२७.६%)	३७८ (१८.९%)	२२७ (११.४%)	२००० (१००%)
एकूण	१६४९ (४१.२%)	१०८९ (२७.२%)	८०१ (२०.०%)	४६१ (११.५%)	४००० (१००%)

Chi Square = 3671 DF = 3 P Value = 0.05 Non Significant

आलेख क्र.१
वडीलांचे शिक्षण संबंधी माहिती दर्शविणारा आलेख



या सारणी अंतर्गत विद्यार्थ्यांच्या वडिलांचे शिक्षण व त्यांचे प्रमाण तपासण्यात आले. शिक्षणाचे प्रमुख चार गट करण्यात आले. खेळणारे व न खेळणारे अशा दोन गटात त्यांची विभागणी करण्यात आली. यामध्ये असे आढळून आले की, पदविपर्यंत शिक्षण प्राप्त करणाऱ्या खेळणाऱ्या विद्यार्थ्यांच्या वडीलांचे साक्षरतेचे प्रमाण हे (४२३) म्हणजेच २१.२ टक्के आहे, असे दिसून आले. या खालोखाल न खेळणाऱ्या विद्यार्थ्यांचे वडीलांचे प्रमाण (३७८) म्हणजेच १८.९ टक्के दिसून आले. १० वी पर्यंत शिक्षण प्राप्त केलेले खेळणाऱ्या विद्यार्थ्यां मध्ये (८०६) म्हणजे ४०.३ टक्के व न खेळणाऱ्या विद्यार्थ्यां मध्ये (८४३) म्हणजे ४२.२ टक्के हे प्रमाण आढळून आले. या सारणी वरून असे दिसून येते की, शिक्षण प्राप्त करणारे बहुतांश वडील पालक हे १० वी पेक्षा कमी शिक्षण घेणारे आढळून आले. १२ वी पर्यंत शिक्षण घेणाऱ्या वडील पालकांचे प्रमाण (५३७) म्हणजे २६.९ टक्के दिसून आले. न खेळणाऱ्या विद्यार्थ्यांचे पालक (५५२) म्हणजे २७.६ टक्के आढळून आले त्याच प्रमाणे पदवृत्तर शिक्षण प्राप्त करणारे खेळणाऱ्या विद्यार्थ्यांच्या पालकांचे प्रमाण (२३४) म्हणजे ११.६० टक्के एवढे तर न खेळणाऱ्या विद्यार्थ्यां चे वडील पालकांचे प्रमाण (२२७) म्हणजे ११.४ टक्के एवढे आढळून आले. सारणी वरून असे स्पष्ट होते की, खेळणारे व न खेळणारे अधिकांश वडिल पालक हे निरक्षर होते व त्यामध्ये खेळात सहभाग न घेणाऱ्या विद्यार्थ्यांचे पालक सर्वाधिक निरक्षर होते असे दिसून आले. साक्षरतेच्या प्रमाणाचे सांख्यिकीय विश्लेषण केले असता ०.२५ या महत्तम स्तरावर ३ डिग्री ऑफ फ्रिडम प्रमाण तपासले असता काय स्केअरचे मुल्य ३६ एवढे आढळून आले. खेळणाऱ्या व न खेळणाऱ्या विद्यार्थ्यांचे साक्षरतेच्या प्रमाणात महत्वपूर्ण फरक दिसून आला नाही. यावरून असा निष्कर्ष निघतो की, खेळणाऱ्या व न खेळणाऱ्या विद्यार्थ्यांचे पालक साक्षरतेचे व निरक्षरतेचे प्रमाण सारखेच दिसून आले.

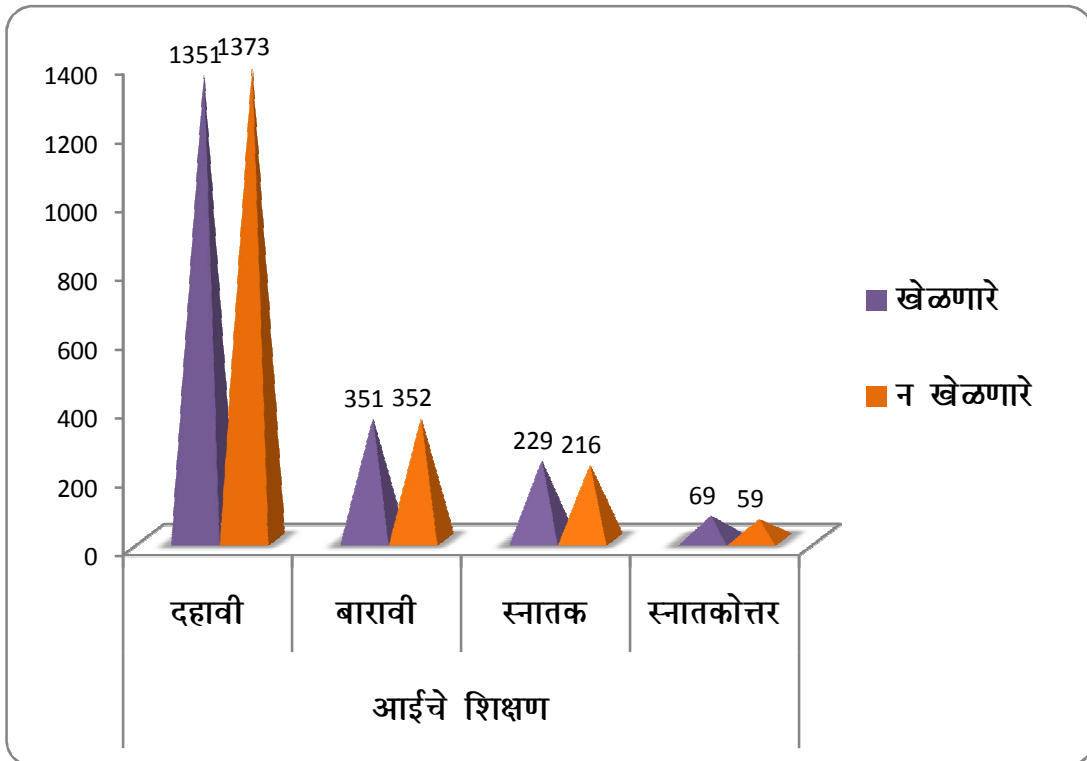
सारणी क्रमांक ४.३
आईचे शिक्षण संबंधी माहिती दर्शविणारी सारणी

	आईचे शिक्षण संबंधी माहिती दर्शविणारी सारणी				एकूण
	दहावी	बारावी	स्नातक	स्नातकोत्तर	
खेळणारे	१३५१ (६७.६%)	३५१ (१७.६%)	२२९ (११.५%)	६९ (३.५%)	२००० (१००.०%)
न खेळणारे	१३७३ (६८.७%)	३५२ (१७.६%)	२१६ (१०.८%)	५९ (३.०%)	२००० (१००.०%)
एकूण	२७२४ (६८.१%)	७०३ (१७.६%)	४४५ (११.१%)	१२८ (३.२%)	४००० (१००.०%)

Chi Square = 1.340 DF = 3 P Value = 0.720 Non Significant

आलेख क्र. ४.३

आईचे शिक्षण संबंधी माहिती दर्शविणारा आलेख



या सारणी अंतर्गत पालकांमध्ये आईचे शिक्षण किती हे तपासण्यात आले. या शिक्षणाचे प्रमुख चार भाग करण्यात आले यात खेळणारे व न खेळणारे अशी यांची विभागणी करण्यात आली या मध्ये असे आढळून आले की दहावी पर्यंत शिक्षण घेतलेल्या आईचे प्रमाण हे खेळणाऱ्या विद्यार्थ्यांचे (१३५१) म्हणजे ६७.६ टक्के एवढे होते. न खेळणाऱ्या विद्यार्थ्यांच्या आईचे

दहावी पर्यंत शिक्षण घेतलेल्या (१३७३) म्हणजेच ६८.७ टक्के एवढे होते म्हणजेच न खेळणाऱ्या विद्यार्थ्यांच्या आईचे दहावी पर्यंतच्या शिक्षणाचे प्रमाण हे खेळणाऱ्या विद्यार्थ्यांच्या आईचे शिक्षणापेक्षा जास्त होते. बारावी पर्यंतच्या शिक्षणामध्ये खेळणाऱ्या विद्यार्थ्यांच्या आईचे प्रमाण (३५१) म्हणजे १७.६ टक्के तर न खेळणाऱ्या विद्यार्थ्यांच्या आईचे शैक्षणिक प्रमाण (३५२) म्हणजेच १७.६ टक्के एवढे होते. म्हणजेच आईचे शिक्षणामध्ये दोन्ही गटात समानता दिसून आली. स्नातक पर्यंत शिक्षण घेतलेल्या आईचे प्रमाण हे खेळणाऱ्या विद्यार्थ्यांचे (२२९) म्हणजेच ११.५ टक्के एवढे होते तर न खेळणाऱ्या विद्यार्थ्यांचे (२१६) म्हणजे १०.८ टक्के एवढे आढळून आले. म्हणजेच खेळणाऱ्या विद्यार्थ्यांच्या आईचे स्नातक पर्यंत शिक्षण घेण्याचे प्रमाण हे न खेळणाऱ्या विद्यार्थ्यांच्या पेक्षा जास्त आढळून आले. स्नातकोत्तर शिक्षणामध्ये सुध्दा खेळणाऱ्या विद्यार्थ्यांच्या आईचे शिक्षण हे (६९) म्हणजे ३.५ टक्के एवढे होते तर न खेळणाऱ्या विद्यार्थ्यांच्या आईचे शिक्षणाचे प्रमाण (५९) टक्के म्हणजेच ३.० टक्के होते. यावरून असे लक्षात येते की, खेळणाऱ्या विद्यार्थ्यांच्या आईचे शिक्षण हेन खेळणाऱ्या विद्यार्थ्यांच्या आईच्या शिक्षणापेक्षा जास्त प्रमाणात होते. आईच्या साक्षरतेच्या प्रमाणाचे सांख्यिकीय विश्लेषण केले असता ०.७२ या महत्तम स्तरावर ०.०५ डी एफ तपासले असता काय स्केअर मुल्य १.३४० एवढे आढळून आले. या वरून असा निष्कर्ष निघाला की, खेळणाऱ्या व न खेळणाऱ्या विद्यार्थ्यांच्या आईचे शिक्षण हे समप्रमाणात आहे. पण खेळणाऱ्या विद्यार्थ्यांच्या आईच्या शिक्षणाच्या प्रमाण तुलनेत अधिक आहे.

निष्कर्ष

खेळणाऱ्या विद्यार्थ्यांच्या पालकांचे शिक्षण हेन खेळणाऱ्या विद्यार्थ्यांच्या पालकांच्या शिक्षणापेक्षा जास्त प्रमाणात होते. पालकांच्या साक्षरतेच्या प्रमाणाचे सांख्यिकीय विश्लेषण केले असता ०.७२ या महत्तम स्तरावर ०.०५ डी एफ तपासले असता काय स्केअर मुल्य १.३४० एवढे आढळून आले. या वरून असा निष्कर्ष निघाला की, खेळणाऱ्या व न खेळणाऱ्या विद्यार्थ्यांच्या पालकांचे शिक्षण हे समप्रमाणात आहे. पण खेळणाऱ्या विद्यार्थ्यांच्या पालकांचे शिक्षणाच्या प्रमाण तुलनेत अधिक आहे.

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फास्टफुड चा किशोरवयीन बालकांच्या आरोग्यावर होणार परिणाम**डॉ. लीना सुनील कांडलकर**गृहअर्थशास्त्र विभाग प्रमुख
इंदिराबाई मेघे महिला महा. अमरावती**प्रस्तावना :-**

शारीरिक क्षमतेवर परिणाम करणारे घटक म्हणजे संतुलीत आहार व स्वच्छ पाणी शारीरिक तसेच मानसिक विकासामध्ये आहार हा मुख्य घटक आहे. भारतीय संस्कृतीमध्ये 'अन्न हे पूर्णब्रम्ह' मानले जाते. सकस, पोषक, व परिपूर्ण असा वेळेवर मिळणार आहार शरीराची गरज भागवितो. तसेच मानसिक समाधान देखील देतो.

आज मुलांच्या सर्वांगीण विकासासाठी त्यांच्या आहाराकडे डोळेझाक करून चालणार नाही. शाळकरी मुलांमध्ये वेळेवर जेवण्याची सवय महत्वाची मानली गेली आहे. प्रत्यक्षात मात्र विद्यार्थ्यांचे आपल्या जेवणाकडे व्यवस्थित लक्ष नसल्यामुळे त्यांची शारीरिक वाढ खुंटते व मेंदुचा विकास योग्य होत नाही. त्यामुळे अभ्यासातील प्रगतीमध्ये अनेक अडथळे निर्माण होतात. या वयात शरीराच्या वाढीसाठी पोळी, भाजी, वरण, भात इ. दैनंदिन समतोल आहाराची गरज असते. किशोरावस्था हा काळ तर पोषणाच्या दृष्टीने अत्यंत महत्वाचा ठरतो. ह्या वयात मुलांचा शारीरिक, भावनिक आणि जीवसायनिक विकास जलद गतीने होतांना दिसतो. या वयात त्यांच्या चटपटीत, चमचमीत पदार्थां, फास्टफुड खाण्याकडे अधिक कल वाढतो. कॅन्टीनमधले किंवा रस्त्यावरील गाडीवरचे पदार्थ उभ्याने व घाईघाईने खाल्ल्याने पदार्थांचे योग्य पचन होत नाही. व अन्नापासून शरीरशक्ती निर्माण होत नाही. तसेच चॉकलेट किंवा पेपरमिंट सारख्या गोळ्या खाल्ल्यामुळे भुक लागत नाही. ह्या गोष्टीकडे लक्ष न दिल्यास विद्यार्थ्यांचे योग्य पोषण होत नाही. त्यामुळे अभ्यासात व खेळात लक्ष न लागणे यासारख्या समस्या निर्माण होऊ शकतात.

आरोग्याच्या आणि पोषक घटकांचा विचार न करता केवळ जिभेचे चोचले पुरविणारा चटपटीत, चमचमीत व आर्कषक अशा खाण्यास तयार पदार्थांचा समावेश 'फास्टफुड' मध्ये होतो.

ऑस्ट्रेलियातील 'युनिव्हर्सिटी ऑफ नॅचरल रिसोर्सेस अँड एम्लाईड लाइफ' च्या संशोधकांनी केलेल्या संशोधनानुसार जास्त 'फास्टफुड' सेवना मुळे तेथील १० ते १३ वयोगटातील मुलांना जेवनातील चवीबाबत काहीही सांगता येत नाही. त्यांना गोड, आंबट, खारट अशा पदार्थांची चव ओळखणेही अवघड होत चाललेले आहे. तसेच यातील अनेक मुले वजनवाढीमुळे त्रस्त आहेत. शहरी भागाच्या तुलनेत ग्रामिण भागातील मुलांमध्ये अशा समस्या कमी प्रमाणात आहेत"

शिशु अवस्थेत व बालपणात आहाराचा प्रभाव आपल्या आरोग्यावर दिर्घकाळ पर्यंत प्रयोगावरून डॉ. अँना मॅककॉर्मिक यांनी सिध्द केले त्यानुसार " आहारातील कॅलरीज कमी केल्या तर मनुष्याचे आयुष्यमान निश्चितच वाढू शकते" म्हणून मुलांच्या बदलत्या खाण्याच्या पद्धतीतून व 'फास्टफुड' च्या पदार्थातून मिळणारे जास्त कॅलरीजचा परीणाम मुलांवर होतो. अधिक मात्रेतील व अयोग्य आहारामुळे बालकांच्या मस्तिष्कांची शक्ती कमी होऊन आचार - विचार क्रियाही मंदावते स्मरणशक्ती कमी होते. अभ्यासात लक्ष लागत नाही. परीणामी अशी मुले भविष्यात कोणत्याही क्षेत्रात मागे पडू शकतात. मुलांना 'फास्टफुड' व डबाबंद पदार्थ दिल्यामुळे यातील अनेक रसायनमुळे शारीरिक व मानसिक हानी होते. 'फास्टफुड' मधील सॅलिसिलेट या रसायनामुळे व्हिटॅमिन सी, खनिज व लोह कमी होऊन रक्ताल्पता निर्माण होते. रोगप्रतिकारकशक्ती कमी होते, आळस वाढतो. तसेच अभ्यासात लक्ष लागत नाही. स्मरणशक्ती कमी होते.

'सेंटर फॉर सायन्स अँड एनव्हायमेंट' या संस्थेने स्पष्ट केले होते की, कोकाकोला आणि पेप्सी सारख्या बाटलीबंद शितपेयात किटकनाशकांचा वापर होत आहे. 'अमेरिकेच्या' 'द अर्थ आयलॅन्ड' 'जर्नल पत्रिकेनुसार प्रत्येक कोकाकोला पेप्सीच्या एका बाटलित ४० ते ७२ mg. इतके नशिले तत्व, ग्लिसरीन, अल्काहोल, इस्टरगम, सायट्रिक ॲसिड व पशुपासून प्राप्त ग्लिसरॉल आढळतात. परंतु तरीही सध्या विविध कोल्ड्रीक्स हे लहान, तरूण मुलामुलींचे प्रमुख आकर्षण झाले आहे. सिंट्रा गोल्डस्पॉट लिम्का, कोकाकोला, मिरिंडा, थम्सअप, पेप्सी इ. प्रकारची कोल्ड्रीक्स तरूण पिढीच्या दृष्टीने बनली आहेत.

प्रसिद्ध मेडिकल जर्नल लेसंटच्या मते सर्व थंडपेय च्या अधिक वापरामुळे डायबिटीज, रच्चरक्तदाब, अनिद्रा, चिडचिडपणा, तणाव, डोके दुखणे, पोट दुखी, पोटात आग व हार्ट अटॅक इ. तर हावर्ड विश्वविद्यालयाचे वैज्ञानिक डॉ. लुडविड च्या अनुसार मुलं आणि मोठ्यांचा लठ्ठपणा वाढतो. 'फास्टफुड' चा वापर मोठ्या प्रमाणात वाढलेला असून लहान मुलांना देखील मधुमेह सारख्या भयंकर आजार होत असल्याचे व 'फास्टफुड' मुळे मधुर्हीच्या संख्येत वाढ झाल्याचे निदान मधुमेह व हृदयरोगतज्ञ डॉक्टर चोरडीया (अमरावती) व आहार तज्ञ प्रा. दिपाली भैसे यांनी कलेले आहे.

'रेडी टू इट' किंवा 'फास्टफुड' मध्ये मोडणार पदार्थ जसे - चिप्स, कुरकुरे, केक, ब्रेड, पेस्ट्री, चॉकलेट, पिझ्झा, बर्गर, चिकन चॉप्स, नुडल्स, पास्ता, समोसे, कचोरी, पावभाजी हे व या सारखे कितीतरी पदार्थांच्या खाण्याकडे लोकांची प्रवृत्ती वाढलेली आहे. पूर्वी व्यक्ती भुकेसाठी जेवायचे, पदार्थ आवडला म्हणून खायचे त्यातील पोषण घटक किंवा काही औषधी गुणधर्मासाठी तो पदार्थ खायचे परंतु आज लोक पिझ्झा, बर्गर, चायनिज या सारखे पदार्थ आणि त्यांचा ब्रॅन्डेड दुकानाच्या चेन्समुळे 'स्टेटस सिंबॉल' म्हणून खायला लागले आहे. बहुतेक कुटुंबातील मुलांना हे पदार्थ खाण्यास अतिशय आवडतात. आणि जेवणाच्या ऐवजी जर हे पदार्थ खाल्ले तर त्याचा वाईट परिणाम मानवी शारीरावर होणारच मुलांच्या खाण्याच्या सवयीमध्ये बदल होणेही तितकेच गरजेचे आहे. खाण्याच्या सवयीमुळे मुलांमधील स्थूलपणा वाढतो. मुलांना फास्टफुड खायला न देता त्यांना फळे, भाज्या, कडधान्ये, मासे, कोंबडी आणि कमी असलेले स्निध उत्पादने खायला दिली पाहिजेत.

आपण ज्यांच्या बरोबर राहतो त्यांच्या खाण्याच्या पद्धतीचा प्रभाव व्यक्तीवर होतो आणि त्याच पद्धतीने आपली लाईफ स्टायल हळूहळू बदलायला लागते असे वारविक विद्यापिठातील तज्ञांनी केलेला हा अभ्यास केब्रिजच्या नॅशनल ब्युरो ऑफ इकोनॉमिक रिसर्च कॉन्फरन्समध्ये सादर करण्यात आला. या झालेल्या संशोधनानुसार मुलं 'फास्टफुड' खाण्याच्या बाबतीत एक दुसऱ्यांच्या किंवा आपल्या मित्र मंडळीचे अनुकरण करतांना दिसतात.

'फास्टफुड' चे बरेच पदार्थ प्लास्टिक पिशव्यामधून किंवा डब्यामधून मिळतात. अनेक अभ्यासांवरून असे लक्षात येते की, प्लास्टिकमध्ये अनेक विषारी रसायने असतात विशेषतः हलक्या प्रतिके प्लास्टिक मधील रसायने व रंग सहजपणे अन्नपदार्थात मिसळतात व स्लो पॉयझन सारखे हे विष हळूहळू शरीरात मिसळते

आठवडयातून एखाद्यावेळी 'फास्टफुड' खाणे ठिक पण जर रोजच अशा प्रकारे 'फास्टफुड' अधिक सेवन केले जात असेल तर ते आरोग्याच्या दृष्टीने निश्चितच अहितकारक आहे. कोठेही, केव्हाही सहजरित्या हे पदार्थ उपलब्ध असल्याने आपण 'फास्टफुड' च्या मागे तरुणाई लागलेली दिसते. मात्र या अन्नातून अनेक अपायकारक घटक शरीरात जातात. संशोधकांच्या अभ्यासानुसार अशा प्रकारचा आहार घेतल्यामुळे शारीरिक स्वास्थ्य बिघडते. मोठया प्रमाणत वजन वाढते, मधुमेह, रक्तदाब, हृदयविकार असे आजार उदभवणे, मन एकाग्र न होणे, अस्वस्थ वाटणे अशा विविध समस्या निर्माण होतात. विशेषकरून नविन पिढीमध्ये अशा प्रकारचे लक्षण जास्त प्रमाणत आढळतात. ,

अहमदाबादच्या 'कन्झ्युमर्स एजुकेशन अँड रिसर्च सेंटर' या ग्राहक संघटनेने बाजारात उपलब्ध पंधरा नामांकीत उत्पादकांच्या नुडल्सचा शास्त्रीय अभ्यास करून महत्वाचे निष्कर्ष काढलेले आहेत. या पाहणीतून लक्षात आलेली सगळ्यात महत्वाची गोष्ट म्हणजे आज बाजारात उपलब्ध असणाऱ्या सर्वच्या सर्व ब्रॅण्डसमध्ये सोडिअम क्लोराईडचे म्हणजेच मिठाचे प्रमाण खूप जास्त आहे. जागतिक प्रमाणानुसार हे प्रमाण दर १०० gm. मध्ये १३० ते ६०० mg इतक असायला हव आपल्याकडे ते सरासरी ८०० gm. च्यावर आहे. काही लोकप्रिय नुडल्समध्ये तर हे प्रमाण २००० mg इतकसुद्धा आढळलेले आहे. गरजेपेक्षा जास्त मीठ हे नेहमीच धोकादायक मानायला हव. नुडल्समध्ये असणारे फॅट्स हा देखील एक महत्वाचा मुद्दा आहे. आंतरराष्ट्रीय निकषांनुसार चांगल्या नुडल्समध्ये फॅट्सचे प्रमाण दर १०० gm. मध्ये ३ % च्या जवळपास असायला हव. आपल्या कडच्या नुडल्समध्ये हे प्रमाण १५% ते २०% आढळते. बरेचदा उत्पादक आपल्या नुडल्स मधल्या फॅट्स व मीठाच्या प्रमाणाबद्दल कोणतीही माहिती देत नाहीत किंवा दिली तरी ती कितपत खरी असेल याचीही खात्री देता येत नाही. ज्या नुडल्समध्ये लोह असल्याचा उत्पादकांनी दावा केलेला होता त्यात नाममात्रही लोह नाही असे या परिक्षणात निदर्शनात आले.

निष्कर्ष

१. फास्टफुड चा वापर किशोरवयीन शहरी बालक अधिक करीत आहेत.
२. सातत्याने फास्टफुड सेवन केल्याने बालकांमध्ये वजनाधिक्य, स्मरणशक्ती कमी होणे, लक्ष केंद्रित न होणे यासारख्या समस्या आढळतात
३. पोटदुखी, आम्लपित्त, उच्चरक्तदाब या सारखे आजार तरुणांमध्ये अधिक दिसून येतात.

उपाययोजना

१. किशोरवयीन बालकांच्या जेवणाच्या निश्चित वेळा कटाक्षाने पाळाव्या.
२. बाजारातील डबाबंद पदार्थ, फास्टफुड यांचा वापर करण्याऐवजी पंपरागत कमी खर्चात तयार होणाऱ्या पोषक घटकयुक्त पदार्थ सेवनाचा आग्रह असावा.
३. फास्टफुड चे दुष्परीणाम सर्वसामान्य व्यक्तीपर्यंत पोहचविण्याच्या दृष्टीने माहिती पत्रक वितरीत करणे तसेच पालक व तरुण वर्गाकरीता परिसंवादाचे आयोजन करावे.

आज 'फास्टफुड' संस्कृतीमुळे वार्ढीच्या वयात बालकांना ज्या पोषक घटकांची तसेच शरीर संरक्षक घटकांची आवश्यकता असते. उदा. प्रथिने, जिवनसत्वे, खनिजे हे न मिळणाऱ्याचा प्रश्न निर्माण होऊ शकतो. शरीरिला उर्जा मिळण्यासाठी पोषक तत्वाची गरज असते. आपला आहार जर चौफेर म्हणजेच सर्व पोषक तत्वांनी युक्त असेल तर आपले शरीर निरोगी राहील. आपल्या शरीराची आणि बुद्धीची निकोप वाढ होण्यासाठी संतुलित किंवा योग्य आहाराची फार गरज असते. याची जाणीव पालकांनी ठेवावी.

आहार व आरोग्य

प्रा. डॉ. ज्योती चोरे (विधळे)

गृहअर्थशास्त्र विभाग प्रमुख
गो. सी. टोम्पे कला, वाणिज्य व विज्ञान
महाविद्यालय, चांदूर बाजार

अन्न आणि पोषण :

'अन्न' ही मानवाच्या प्राथमिक गरजांपैकी एक गरज आहे. मानवी आरोग्य आणि अन्नाचा अतिशय जवळचा संबंध आहे. अन्नाविषयी शास्त्रशुद्ध माहिती प्रत्येकाला असावी म्हणजे त्यांचे आरोग्य चांगले राहण्यास मदत होईल. अन्नाचा शोध लागण्यापूर्वी आदिमानव जंगलात उपलब्ध कच्च्या फळभाज्या, कंदमुळे इत्यादींचा 'अन्न' म्हणून स्वीकार करित असे. हळूहळू मानवी प्रगतीबरोबर पशुपालन, शेती, शिकार याद्वारे अन्नात बदल होऊ लागले. तद्वतच अन्न हे केवळ शरीरातील पोटाची भूक भागविण्यासाठी आवश्यक नसून मानसिक, सामाजिक आवश्यकतांची पूर्ती करण्याचे एक महत्त्वपूर्ण साधन आहे, हे त्यांच्या लक्षात आले आणि अन्न किंवा आहार यांच्या संकल्पना बदलण्यास खऱ्या अर्थाने सुरुवात झाली.

अन्न हे केवळ जीवन जगण्यासाठी आवश्यक आहे असे नसून मनुष्य कसा जीवन जगणार हे तो घेत असलेल्या अन्नाचा प्रकार व पध्दतीवर अवलंबून असते. आहारावर मनुष्याचा स्वभाव, आचार-विचार, भावना, व्यक्तिमत्त्व, देहकाठी आणि वर्तन अवलंबून असते. म्हणूनच भागवत गीतेच्या सतराव्या अध्यायात लिहिले आहे की आहार/अन्न हे तीन प्रकारचे असते. १) सात्त्विक अन्न - जे सत्त्वगुणास बनवते आणि ग्रहण केले जाते. २) राजसिक अन्न आणि ३) तामसिक अन्न - जे भ्रमात बनविले जाते. सर्वात आरोग्यदायी अन्न म्हणजे सत्त्वगुणी अन्न होय. सत्त्वगुणी अन्नात दूध, दुधाचे पदार्थ, धान्य, फळे आणि भाज्या यांचा समावेश होतो. त्यामुळे आयुर्मर्यादा वाढते तसेच शक्ती, आरोग्य, सुख, आनंद आणि तृप्ती प्राप्त होते.

व्याख्या :

जागतिक आरोग्य संघटनेने (WHO) केलेली आरोग्याची व्याख्या पुढीलप्रमाणे -

"आरोग्य म्हणजे केवळ रोगापासून मुक्तता नव्हे तर शारीरिक, मानसिक, सामाजिक व संपूर्ण स्वास्थ्य म्हणजे आरोग्य होय." ("State of complete physical, mental & social wellbeing and not merely the absence of disease of infirmity.")

संबंधित व्याख्येवरून स्पष्ट होते की, आरोग्य ही संज्ञा व्यक्तीच्या स्वास्थाचे संघटन आहे. व्यक्तीच्या आरोग्याचा विचार करताना फक्त शारीरिक स्वास्थाचा विचार करून चालत नाही. कारण मानव हा समाजशील प्रवृत्तीचा आहे. त्यामुळे शारीरिक स्वास्थाइतकेच मानसिक आणि सामाजिक स्वास्थाला स्थान आहे. तज्ज्ञांनी अन्न आणि पोषणासंबंधी केलेल्या व्याख्या पुढीलप्रमाणे आहेत.

आहारशास्त्र :

"आहारशास्त्र हे अन्नविज्ञान असून आरोग्य स्वास्थाकरीता आवश्यक असलेले अन्न, अन्नघटक, शरीरास होणारा उपयोग, त्यांचे परस्परसंबंध शरीराची वाढ, आजार, आहारोपचार, अन्नाचे पचन, शोषण, नको असलेल्या पदार्थांची विल्हेवाट, आहार आयोजन या सर्व बाबींचा अभ्यास ज्या शास्त्रात केला जातो त्याला आहारशास्त्र म्हणतात."

(Nutrition is the science of food and its interaction with an organism to promote and maintain health. Nutrition is combination of processes by which all parts of the body receive and the utilize the material necessary for the performance of their functions and for the growth and renewal of all the components.)

आहार आणि आरोग्य यांचा सहसंबंध :

आरोग्य हे अन्नावर निर्भर असते. म्हणून उत्तम पोषण स्वास्थाची मूलभूत बाब समजली जाते. ज्या प्रकारचा आहार मिळेल त्यावर शरीरसौष्टव, आरोग्य पुननिर्मिती, कार्यशक्ती अवलंबून राहिल. आयुर्वेदशास्त्रात तसेच गीतेत अन्न आणि आरोग्य यांचा सहसंबंध जोडलेला दिसतो. सत्व, रज, तम हे मानवी स्वभावगुण आहारावर निर्भर आहेत, असे दाखले पौराणिक ग्रंथात दिसतात. विशिष्ट ऋतूत काही पदार्थ आहारात घेणे निषिद्ध मानल्या गेले. आहारनियमनाच्या माध्यमातून सुदृढ आरोग्य राखणे ही त्यामागची भरीव बैठक आहे. व्यक्तीच्या स्वास्थाचा विचार करतांना फक्त शारीरिक स्वास्थाचा विचार करून पुरेसे ठरत नाही, तर मनुष्य हा

समाजशील प्राणी असल्याकारणाने त्याच्या मानसिक आणि सामाजिक स्वास्थाला शारीरिक स्वास्थामुळे महत्त्व दिले. मानवाची सर्वांगीण प्रगती ही सुदृढ आरोग्याची पावती असते.

अन्नाचा पोषण दर्जा सुधारणे

अन्न शिजविल्याने अन्नात भौतिक व रासायनिक बदल होतात. रंग, स्वाद, सुवास, भोज्य घटक या सर्वात बदल घडून येतो. असे सुपाचक अन्न सर्वांना आवडते. अन्न शिजविणे हे शास्त्र आणि कला देखील आहे. दोन्ही बाबींचा समन्वय साधत असतांना ते खाद्यान्न कुटुंबियांच्या गरजेनुसार त्यांच्या वयोगटानुसार, कामाच्या स्वरूपाला योग्य आहार असे तयार करणे आवश्यक असते. कोणताही अन्नघटक हा सर्वांगाने परिपूर्ण नाही. कोणत्या अन्नघटकात शक्तीवर्धनाचा गुण आहे तर त्यात शरीरसंक्षकाचा गुण कमी असल्याचे दिसून येते. प्रथिनांमध्ये शरीर निर्माणक आणि झालेली झीज भरून काढणे, पेशींच्या निर्मितीला पोषक बाजू त्यात आहे. याचाच अर्थ असा कोणताही अन्नघटक त्याची दुसऱ्या अन्नघटकाशी सांगड घालावी लागते. याचाच अर्थ असा त्यात पोषणमूल्य वाढवावी लागतात.

अन्नाचा पोषण दर्जा सुधारणे ही बाब लेखिकेच्या पुढील व्याख्येतून स्पष्ट होते.

व्याख्या : अन्नाचा पोषण दर्जा सुधारणे : "अनेक अन्नगटाची एकत्र गुंफन करून पाहिजे त्या पोषणमूल्यांचे कमी/अधिक प्रमाणात संघटन करणे आणि आरोग्यवर्धकता त्या खाद्यपदार्थातून प्राप्त करणे म्हणजे अन्नाचा पोषणविषयक दर्जा सुधारणे होय."

खाद्यपदार्थ शिजविल्यास त्यात दोन प्रकारचे बदल होतात.

- १) बाह्य घटक - रंग, पोत, आकारमान
- २) आंतरिक बदल - वास, भोज्य घटकांवर परिणाम

खाद्यपदार्थाचा पोषण विषयक दर्जा सुधारण्यासाठी वर दिलेल्या दोन्ही प्रकारच्या बदलावर नियंत्रण ठेवणे आवश्यक असते. कारण अन्न हे दिसायला आकर्षक व सत्त्वयुक्त दोन्ही असणे आवश्यक आहे.

संदर्भग्रंथ सूची

- १) अन्नशास्त्र आणि पोषण भाग : १, त्रिवेणी फरकाडे व सुलभा गोंगे, पिंपळापुणे अँड कं. पब्लिशर्स, नागपूर
- २) मानवी पोषण आणि आहारशास्त्र, डॉ. संगीता जवंजाळ व डॉ. किरण बेलूरकर, श्री साईनाथ प्रकाशन, नागपूर
- ३) पोषण आणि आहारशास्त्र, त्रिवेणी फरकाडे व सुलभा गोंगे, पिंपळापुणे अँड कं. पब्लिशर्स, नागपूर
- ४) बालाजी तांबे

पश्चिम बंगाल राज्य के पश्चिम वर्द्धमान जिला के उच्च माध्यमिक विद्यालयों के पाठ्यक्रम में शारीरिक शिक्षा को अनिवार्य विषय बनाने हेतु सर्वोक्षण

सचिन मंडल

रिसर्ज स्कॉलर

सं.गा.बा.अ.विद्यापीठ, अमरावती.

सारांश

हमारे देश में शारीरिक शिक्षा व्यवसाय काफी पीछे है परन्तु इसके महत्व को अब पुरा देश धीरे धीरे समझने लगा है। पर पश्चिम बंगाल में आज भी पुरी तरह से इस विषय को स्पष्ट नहीं किया गया है। और तभी १० वीं तक इसे ऐच्छिक और १२ वीं में इस विषय को रखा ही नहीं गया है। इस संदर्भ में शोधकर्ता ने छात्रों से इस विषय की राय लेनी चाहिए। वर्तमान अध्ययन में पश्चिम बंगाल राज्य के पश्चिम वर्द्धमान जिला के १० सरकारी उच्च विद्यालयों में अध्ययन ८ वीं से १२ वीं कक्षा के छात्रों को ऑकड़ों के स्रोत के रूप में लिया गया। ग्रामीण क्षेत्रों के उच्च विद्यालयों में अध्ययनरत छात्रों का चयन किया गया। प्रत्येक विद्यालय में से १० छात्रों का चुनाव रैंडम पद्धति से न्यादर्श के रूप में चयन किया गया। सम्बन्धित अध्ययन में अनुसंधानकर्ता पश्चिम बंगाल राज्य के पश्चिम वर्द्धमान जिला में सरकारी उच्च विद्यालय में पढ़ रहे छात्रों के मतों का अध्ययन करने के लिए स्वयंम् निर्मित मतावली के माध्यम से ऑकड़े एकत्रित किया गया एवं कई स्केअर χ^2 द्वारा आकलन किया गया। निष्कर्ष से हमें यह ग्यात होता है की छात्रों शारीरिक शिक्षा को ११वीं व १२वीं में अनिवार्य विषय के रूप में चाहते हैं। वह यह भी मानते हैं की शारीरिक शिक्षा से सामान्य शिक्षा से लाभ मिलेगा, तनाव को दूर किया जा सकता है इस विषय से उत्साह मिलता है। शारीरिक क्षमताओं में वृद्धि होती है, विचलन को दूर किया जा सकता है।

प्रस्तावना

हमारे देश में शारीरिक शिक्षा व्यवसाय काफी पीछे है परन्तु इसके महत्व को अब पुरा देश धीरे धीरे समझने लगा है। पर पश्चिम बंगाल में आज भी पुरी तरह से इस विषय को स्पष्ट नहीं किया गया है। और तभी १० वीं तक इसे ऐच्छिक और १२ वीं में इस विषय को रखा ही नहीं गया है। पर शारीरिक शिक्षा सबके लिए आवश्यक है, बच्चे, किशोर, युवा, प्रोढ स्वस्थ, अस्वस्थ, विकलांग स्त्री — पुरुष सभी के लिए जरूरी है। व्यायाम तथा योग द्वारा अनेक रोग का निदान किया जा रहा है। अब डॉक्टर भी रोगी को व्यायाम कि सलाह देता है। व्यायाम से रोग निवारण क्षमता में वृद्धि होती है एक दिन ऐसा आयेगा जब अन्य व्यवसाय की तरह शारीरिक शिक्षा को भी मान्यता देगी, और सभी कक्षाओं में स्वास्थ्य को ठीक रखने के लिए, सही व्यायाम जानने के लिए, व्यायाम के उचित मात्रा को जानने के लिए शारीरिक शिक्षा को सभी वर्गों के लिए अनिवार्य किया जाना चाहिए।

वर्तमान समय में अधिकतर विद्यालयों में स्वास्थ्य सेवा उपलब्ध नहीं है। स्वच्छता व स्वास्थ्य की शिक्षा विद्यालय में प्रवेश के समय से लेकर स्नातक होने तक विद्यार्थी को दी जानी चाहिए जिससे वह अपने जीवन का प्रारंभ सुरक्षात्मक उपाय अपना सके और उनके पीछे दिये वैज्ञानिक कारणों को भी वह जानना हो इस प्रकार वह व्यक्तित्व व सामाजिक लाभ हेतु कार्य कर सकेगा। प्रत्येक विद्यालय में एक प्रतिशत स्वास्थ्य शिक्षक होना चाहिए।

शारीरिक शिक्षा विषय पश्चिम बंगाल राज्य के माध्यमिक और उच्च माध्यमिक विद्यालय के पाठ्यक्रम में उपेक्षित है। पश्चिम बंगाल राज्य में शारीरिक शिक्षा को अनिवार्य विषय नहीं रखा गया है। साथ ही ११वीं तथा १२वीं कक्षा में यह विषय है ही नहीं, जब कि कॉलेज में एक विषय के रूप में इस की पढाई होती है। इस संदर्भ में शोधकर्ता ने छात्रों, अभिभावकों तथा प्रधानध्यापक से इस विषय की राय लेनी चाहिए।

क्योंकि शारीरिक शिक्षा यह सामान्य शिक्षा का एक अभिन्न अंग है। इसलिए इस शिक्षा की और इसको पढाने वाले शिक्षकों को सभी स्तरों पर आवश्यकता है। छात्रों के विकास में शारीरिक शिक्षा एवं खेलकुद का महत्वपूर्ण योगदान है। इस सैद्धान्तिक विचार से सभी प्रधानाध्यापकों और अभिभावक वस्तुस्थिति है, की हमारी उच्च विद्यालयों में शारीरिक शिक्षा के अभाव में विद्यार्थियों का समुचित विकास नहीं हो पा रहा है तथा हमारा समाज अच्छे खिलाड़ी प्राप्त करने में असफल हो रहा है। अतः अनुसंधानकर्ता की परिकल्पना है कि मुख्याध्यापक इस विषय कि अनिवार्यता की अपेक्षा रखते हैं। निश्चित ही इसके बालकों पर कोई अतिभार नहीं पड़ेगा बल्कि इसके विपरीत बालक अपनी पढ़ाई में अधिक कार्यक्षम होंगे, इस प्रकार के विचार से मुख्याध्यापक एवं अभिभावक और विद्यार्थी प्रभावित होंगे ऐसा अनुसंधानकर्ता की परिकल्पना है।

कार्यपद्धती

वर्तमान अध्ययन में पश्चिम बंगाल राज्य के पश्चिम वर्द्धमान जिला के १० सरकारी उच्च विद्यालयों में अध्ययन ८ वीं से १२ वीं कक्षा के छात्रों को ऑकड़ों के स्रोत के रूप में लिया गया। ग्रामीण क्षेत्रों के उच्च विद्यालयों में अध्ययनरत छात्रों का चयन किया गया। प्रत्येक विद्यालय में से १० छात्रों का चुनाव रैंडम पद्धति से न्यादर्श के रूप में चयन किया गया।

ऑकड़ें एकत्रिकरण के साधन :

सम्बन्धित अध्ययन में अनुसंधानकर्ता पश्चिम बंगाल राज्य के पश्चिम वर्द्धमान जिला में सरकारी उच्च विद्यालय में पढ़ रहे छात्रों के मतों का अध्ययन करने के लिए स्वयंम् निर्मित मतावली के माध्यम से ऑकड़े एकत्रित किया गया एवं काई स्केअर χ^2 द्वारा आकलन किया गया।

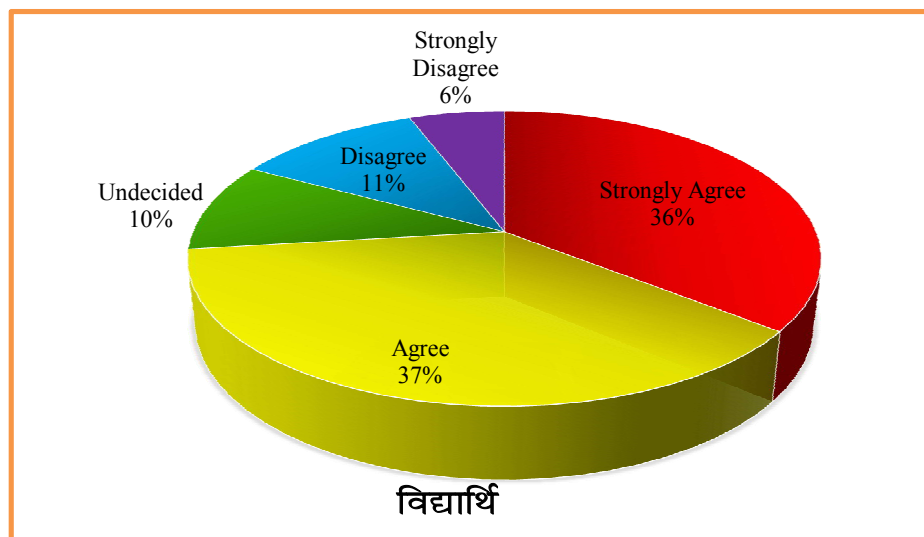
सारणी क्रमांक . १

पश्चिम बंगाल राज्य के पश्चिम वर्द्धमान जिला के उच्च माध्यमिक विद्यालयों के पाठ्यक्रम में शारीरिक शिक्षा को अनिवार्य विषय बनाने हेतु छात्रों के मतों का सर्वोक्षण

Agreement	Fo	Fe	χ^2
Strongly Agree	35.66	20	12.27
Agree	37.44	20	15.21
Undecided	09.77	20	05.22
Disagree	11.33	20	03.75
Strongly Disagree	05.77	20	10.11
Total	χ^2		46.581

उपरोक्त दिए हुये सारणी क्रमांक १ के सुक्ष्म अवलोकन से यह ज्ञात हुआ की छात्रों का मतों के आधार पर पश्चिम बंगाल राज्य के पश्चिम वर्द्धमान जिला के उच्च माध्यमिक विद्यालयों के पाठ्यक्रम में शारीरिक शिक्षा को अनिवार्य विषय बनाने के प्रति दृष्टिकोण १२.२७ 'तिव्र सहमतो', 15.21 'सहमतो', 5.22 'अनिश्चिता', 03.75 'असहमत', तथा १०.११ छात्रों के मत यह 'पुर्णतः असहमत' को दर्शाते हैं।

अतः Degree of Freedom 4 और उसी के साथ level of Significance 0.05 स्तर पर tabulated χ^2 9.49 है। Calculated χ^2 46.58 है जो कि सारणी काई स्केअर मूल्य से अधिक है। जिसे यह निष्कर्ष सामने आता है कि, छात्रों के मतों के आधार पर शारीरिक शिक्षा के प्रति दृष्टिकोण यह सकारात्मक है।



निष्कर्ष

इस सर्वेक्षण से यह ग्यात होता है की छात्रों शारीरिक शिक्षा को ११वी व १२वी में अनिवार्य विषय के रूप में चाहते है। वह यह भी मानते है की शारीरिक शिक्षा से सामान्य शिक्षा से लाभ मिलेगा, तनाव को दुर किया जा सकता है इस विषय से उत्साह मिलता है। शारीरिक क्षमताओं में वृद्धि होती है, विचलन को दुर किया जा सकता है।

संदर्भ

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- 4- Valdez and Lindy A, "Attitudes Toward Physical Education of Middle School Students and Their Parents" Dissertation Abstract International, Vol. 59, No.05, Nov-1998

महाविद्यालयीन खेळाडू आणि इतर पदव्युत्तर विषयातील विद्यार्थ्यांचे वय, वजन, उंचीचा अभ्यास आणि उपाय योजना

प्रा. प्रदिप खेडकर
कला, वाणिज्य व विज्ञान महा.
किरण नगर, अमरावती

प्रस्तावना :-

२१ व्या शतकात शिक्षणाला अन्य साधारण महत्त्व प्राप्त झालेले आहे. शिक्षणातून विद्यार्थ्यांचा सर्वांगीण विकास करता येतो. पण आजची शिक्षण पद्धती ही विद्यार्थ्यांच्या बौद्धिक पातळीचा विकास करते. त्यात त्यांच्या शारीरिक विकासाला तितके महत्त्व दिले जात नाही. कारण त्यात वेळेच्या मर्यादा आहेत. याचेच एक उदाहरण म्हणजे सर्वाधिक लोकसंख्या असूनही आपल्या देशात, विविध खेळांमध्ये, स्पर्धांमध्ये, ऑलिंपिक पातळीवर तितकेसे उत्कृष्ट दर्जाचे खेळाडू मिळत नाही तर काही खेळांमध्ये प्रतिनीधीत्व करण्यासाठी खेळाडू उपलब्ध होत नाही. त्याचे मुख्य कारण म्हणजे बालवयापासून तर शालेय जीवनापर्यंत कुटूंब व शाळा या विद्यार्थ्यांच्या शारीरिक विकासाकडे लक्ष पुरवित नाहीत.

प्रस्तुत शोधपत्र याच घटकाला मध्यभागी ठेवून आखलेला आहे. ज्यात खेळाडू ज्यानी आंतरमहाविद्यालयीन स्पर्धेत भाग घेतला आहे. असे आणि इतर विषयातील शिकणारे बिगर खेळाडूच्या बॉडी मास इंडेक्स चा आढावा घेऊन त्यांच्यातील फरक काढण्याचा प्रयत्न केला आहे. ही संकल्पना काही नवीन नसून, फक्त सर्वसामान्य लोकापर्यंत पोहचलेली दिसत नाही. म्हणून प्रस्तुत शोध पत्राच्या द्वारे या घटकाची सर्वसाधारण युवकांनी त्याची जाणीव करणे या विषयाच्या उद्दीष्ट ठरले आहे.

महाविद्यालयामध्ये विविध स्पर्धांचे आयोजन केले जाते. त्यासाठी या स्पर्धांमध्ये भाग घेण्यासाठी खेळाच्या नियमानुसार तितकी वय, वजन, उंची असलेली मुले उपलब्ध होत नाहीत विशिष्ट खेळासाठी ज्या उंचीची मुले असावी तशी मुले मिळत नसल्यामुळे स्पर्धेत यश लाभत नाहीत. उदा. बास्केट बॉल, वॉलीबॉल यासारख्या खेळासाठी जात उंचीचे मुले लागतात तसेच कुस्ती, ज्यूदो यासारखे खेळ वजनावर अवलंबून असते तसेच खेळाडूचे वय देखील ग्राह्य धरले जाते.

संशोधनाची उद्दिष्टे :

प्रस्तुत संशोधनात संशोधकाने संशोधनाची पूढील उद्दिष्टे निश्चित केलेली आहेत. आंतर महाविद्यालयीन स्तरावरील खेळाडूंचे वय, वजन, उंची इ.च.ख. चा शोध घेणे व मध्यमान काढणे, महाविद्यालयीन पदवी आणि पदव्युत्तर विषयातील शिकणाऱ्या विद्यार्थ्यांचे वय, वजन, उंची चा शोध घेणे व मध्यमान काढून दोघांमध्ये म रक पाहणे. आंतर महाविद्यालयीन स्तरावरील खेळाडू आणि इतर पदवी व पदव्युत्तर विषयातील विद्यार्थ्यांचा वय, वजन, उंची व इ.च.ख. ची तुलना करणे.

आंतरमहाविद्यालयीन स्तरावरील खेळाडू आणि इतर पदव्युत्तर विषयातील विद्यार्थ्यांचा वय, वजन, उंची इ.च.ख. ची तुलना करणे व त्यांच्या शरीराच्या इ.च.ख. ची टक्केवारी काढून निकष लावणे.

संशोधन कार्यपद्धती :

संशोधन कार्यपद्धत ही संशोधनाच्या स्वरूपात अवलंबून असते. संशोधन मुख्यतः वैज्ञानिक पद्धतीने केले जाते. माहिती संकलनासाठी कोणता, नमुना निवडायचा हे संशोधन पद्धतीवर अवलंबून असते.

प्रस्तुत संशोधनासाठी संशोधकाने सर्वेक्षण संशोधन पद्धतीचा अवलंब केला आहे. सर्वेक्षण म्हणजे पाहणी करणे. निरीक्षण करून वर्णन करणे. सर्वेक्षण निव्वळ माहिती संकलीत करणे आणि पत्रके तयार करणे ऐवढ्या पुरतेच मर्यादीत नाहीतर त्यात वर्गीकरण, अर्थ निर्वेचण आणि मूल्यांकन त्यांच्या आधारे वर्णित विषयांचे स्पष्टीकरण, तुलना व सार्थकता असते.

माहिती संकलीत करण्याची पद्धत :

संशोधकाने माहिती संकलन करण्यासाठी एकुण ५० खेळाडू आणि ५० विद्यार्थी घेऊन त्याची निवड नमुना निवड पद्धतीचा वापर करून केली. आंतर महाविद्यालयीन स्तरावरील विद्यार्थ्यांकडून वय, वजन, उंची यांची माहिती मिळविण्यासाठी स्वतःनिर्मिती तक्ता तयार केला आणि त्याच्या साहाय्याने माहिती संकलीत केली आणि इ.च.ख. च्या साहाय्याने निष्कर्ष काढण्यात आले, त्याचे स्वरूप खालील प्रमाणे होते.

खालील दिलेल्या चित्रात दर्शविल्या नुसार इ.च.ख. केलकुलेटर द्वारे विद्यार्थ्यांचे, खेळाडूचे बॉडी मास इंडेक्स काढण्यात आले. त्यात त्याचे वय, (वर्षात) वजन (किलोग्रॅम) उंची (सेंटी मीटर) घेण्यात आले. तसेच प्राथमिक माहितीवर पण देखील एकत्र करण्यात आले. या शोधासाठी एकुण १०० मुलांचा समावेश होता ज्यामध्ये ५० खेळाडू आणि ५० बिगर खेळाडू विद्यार्थी (पदवी व पदव्युत्तर) घेतले.

निष्कर्ष व चर्चा :

सदर संशोधकाने महाविद्यालयीन स्तरावरील खेळाडू आणि इतर पदवी व पदव्युत्तर विषयातील विद्यार्थ्यांचे वय, वजन, उंचीचा इ.च.ख. अभ्यास आणि उपाय योजना या विषयावर संशोधन केलेले असून संशोधकाने प्राप्त माहितीचे वर्णनात्मक व अनुमानात्मक विश्लेषण करून निष्कर्ष मिळालेले आहेत तू पूढील प्रमाणे.

- १) आंतर महाविद्यालयीन स्तरावरील खेळाडूंच्या वयाचे मध्यामान २२.०२ वजनाचे मध्यमान ५७.३ व उंचीचे मध्यमान १७२.६ आहे.
- २) महाविद्यालयीन स्तरावरील पदवी व पदव्युत्तर विषयातील शिकणाऱ्या विद्यार्थ्यांच्या वयाचे मध्यमान २०.१८ वजनाचे मध्यमान ६२.८६ व उंचीचे मध्यमान १६८.८४ आहे.
- ३) आंतर महाविद्यालयीन खेळाडूंचे वय हे इतर पदव्युत्तर विषयातील विद्यार्थ्यांच्या वयापेक्षा दिसून येते.
- ४) आंतर महाविद्यालयीन स्तरावरील खेळाडूंचे वजन हे इतर पदवी व पदव्युत्तर विषयातील विद्यार्थ्यांच्या वजनापेक्षा कमी आहे.
- ५) आंतर महाविद्यालयीन स्तरावरील खेळाडूंची उंची ही इतर पदव्युत्तर विषयातील विद्यार्थ्यांच्या उंचीपेक्षा जास्त आहे.
- ६) आंतर महाविद्यालयीन स्तरावरील खेळाडूंच्या कमी वजनाची टक्केवारी ही इतर पदव्युत्तर विषयातील विद्यार्थ्यांपेक्षा २८% नी अधिक आहे.
- ७) इतर पदवी व पदव्युत्तर विषयातील विद्यार्थ्यांचे वजन हे सरासरी पेक्षा जास्त आहे.
- ८) आंतर महाविद्यालयीन स्तरावरील खेळाडूंपेक्षा इतर पदव्युत्तर विषयातील २% विद्यार्थ्यांमध्ये लड्डुपणा आढळून येतो.
- ९) आंतर महाविद्यालयीन स्तरावरचे खेळाडूंपेक्षा महाविद्यालयीन पदवी व पदव्युत्तर विद्यार्थ्यांच्या उंची मध्ये म रक आढळतो.

शिफारशी :**अ) खेळाडूंसाठी शिफारशी :**

- १) शिक्षण घेणाऱ्या सर्व विद्यार्थ्यांनी आपली उंची वाढविण्यासाठी प्रयत्न करावे.
- २) खेळाडूंनी आपले वजन वाढविण्यासाठी आपल्या आहाराकडे लक्ष द्यावे. त्यात बैलसडायट द्यावे.
- ३) ज्याच्या तुलनेत खेळाडूंचे वजन कमी असल्याने त्यांनी योग्य आहार सेवन करावा.
- ४) खेळाडूंनी सुदृढ शरीर बनविण्याकडे लक्ष द्यावे.
- ५) खेळाडूंनी नियमीत व्यायाम व पोषक जीवन सत्वे सेवन करावीत.
- ६) दुग्धजन्य व प्रथीन युक्त पदार्थ रोज सेवन करावीत त्यामुळे त्यांची शारीरिक क्षमता वाढेल.
- ७) अंडी, केळी इतर मळे नियमीत आहारात घ्यावीत जेणेकरून त्यांचे वजन वाढेल.
- ८) खेळाडूंना आपल्या वजन नियंत्रित ठेवावे.

ब) पदव्युत्तर विद्यार्थ्यांसाठी शिफारशी :

- १) आपले वजन कमी करण्याकडे लक्ष द्यावे, त्याला नियंत्रित करण्यासाठी उपाय करणे.
- २) लड्डूपणा हा शरीरास घातक असल्याने लड्डूपणा कमी करावा.
- ३) अती विश्रांती व झोप घेण्याचे टाळावे अभ्यासाठी वेळ ठरविणे.
- ४) स्निग्ध व चरबीयुक्त पदार्थ सेवन करुन नये किंवा कमी प्रमाणात घेणे.
- ५) वजन कमी करण्यासाठी रोजन किमान ५ किमी धावणे, चालने व व्यायाम करणे.
- ६) वयाच्या तुलनेत उंची वाढवावी व वजन कमी करावे.
- ७) प्रत्येक वर्षी आपल्या बी.एम.आय. तपासणे.

संदर्भ :

- १) सुरवाडे जितेन्द्र : विद्यापीठ स्तरावरील खेळाडू आणि इतर पदव्युत्तर विषयातील विद्यार्थ्यांचे वय, वजन, उंचीचा (इ.च.ख.) अभ्यास आणि उपाय योजना. एम.पी.एड. शोध प्रबंध, उत्तर महाराष्ट्र विद्यापीठ २००९
- २) खेळ संचलन आणि क्रीडा मार्गदर्शन : डॉ. परिहार, प्रा. जुझारसिंग
- ३) स्वास्थ्य शिक्षण : रमेशचंद्र कवर
- ४) Boucher, Charles A "Foundation of Physical Education Editions १९७९st Lousi C.V. Mostly Company.

A Study Of Physical Activity Improves Mental Health And Disease Resisitance

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It has been known for many years that regular physical activity brings benefits to individuals with depressive and anxiety symptoms, a fact confirmed in recent studies. In addition, physical activity improves the quality of life of patients with no psychiatric diseases such as peripheral arterial occlusive disease and fibromyalgia and helps in the relief of such diverse conditions as nicotine abstinence and menopause.

The relationship between improvement of mood and exercise, however, does not seem to be universal. Studies have shown that individuals without psychiatric symptoms who regularly exercise experience better moods than those who do not, however, it should be noted that an association between improvement of mood and medium- or long-term physical activity has not consistently been demonstrated for normal individuals. On the other hand, there are studies reporting improvement of various other aspects such as self-esteem, vitality, general well-being, and satisfaction with physical appearance. Evidence also indicates that regular physical activity may protect against the development of depression, or that physical inactivity might be a risk factor for depression, but the possible protective effect has not been demonstrated experimentally.

The effects of regular physical activity on mood have mainly been studied using aerobic exercise, but evidence indicates that anaerobic physical activity, such as body building or flexibility training, can also reduce depressive symptoms. In contrast, no consensus exists with respect to anxiety symptoms, with some authors reporting that anaerobic activity is as effective as aerobic exercise, while others do not.

With respect to the acute effects of aerobic physical activity, improvement of depressive and anxiety symptoms after a single exercise episode has been reported to occur and to last for some hours or even up to one day, and at least for anxiety symptoms there is evidence that anaerobic exercise (body building) may yield the same effect, which probably is not observed immediately after the end of exercise but rather a few hours later.

Physical Activity And Improvement Of Mental Health: Mechanisms

Various psychological hypotheses have been proposed to explain the beneficial effects of physical activity on mental health, the main being 1) distraction, 2) self-efficacy, and 3) social interaction. The distraction hypothesis suggests that diversion from unfavourable stimuli leads to an improved mood during and after exercise. The self-efficacy hypothesis proposes that, since physical exercise can be seen as a challenging activity, the ability to get involved in it in a regular manner might lead to improved mood and self-confidence. With respect to the social interaction hypothesis, the social relationships commonly inherent in physical activity, as well as the mutual support that occurs among individuals involved in exercise, play an important role in the effects of exercise on mental health.

In addition, physiological hypotheses have also been raised to explain the effects of physical activity on mental health, the two most studied ones being based on 1) monoamines and 2) endorphins. The first hypothesis is supported by the fact that physical activity increases the synaptic transmission of monoamines, which supposedly function in the same manner as antidepressive drugs. Because it would be an oversimplification to state that the efficacy of antidepressives is due to increased synaptic transmission of monoamines, it follows that this hypothesis, although plausible, also seems likewise too simple to explain the improvement of mood associated with physical activity.

The second hypothesis, however, is based on the observation that physical activity causes the release of endogenous opioids (endorphins — "endogenous morphines"), basically beta-endorphin. Supposedly, the inhibitory effects of these substances on the central nervous system are responsible for the sensation of calm and improved mood experienced after exercise, but this has yet to be confirmed. Another speculation is the possible relation between increased irritability, restlessness, nervousness, and feelings of frustration reported by physically active individuals when withdrawn from exercise⁵⁵ and in a state of endorphin abstinence. A last unclarified point is the fact

that some studies have reported that opioid receptor blockers such as naloxone or naltrexone reduce the affective response to exercise, thus favouring a role of endorphins, but there are investigations contradicting this hypothesis.

No consensus exists regarding the relative importance of the above mentioned hypotheses (both psychological and physiological) in explaining the association between physical activity and mood improvement. A psychobiological model combining all of them is the most probable. In order to obtain a precise definition of this model, a better understanding of the mechanisms that link physical activity to each of these hypotheses and of the mechanisms that link these hypotheses to improved mood is necessary. This knowledge will probably lead to a model in which psychological and biological factors interact in a specific and concatenate manner, and which varies according to environmental stimuli and the psychological and biological characteristics of each individual.

Some more facts about effect of physical activity

Physical health benefits as well as improving your overall physical fitness, being more active can have the following physical benefits:

- Reduced risk of some diseases. For example, health experts suggest that being more active can reduce your risk of developing a stroke or heart disease by 10%, and type 2 diabetes by 30–40%.
- Reduced risk of physical health problems as our bodies adapt to stress. As we become fitter, our bodies can better regulate our cortisol levels. Cortisol is a ‘stress hormone’ that our bodies release in response to anxiety; over prolonged periods, higher cortisol levels have been linked to a wide range of health problems including heart disease, high blood pressure, a lowered immune response, as well as depression and anxiety.
- Healthier organs. When you're active your body is working more, which is good for your organs. For example, a stronger heart will help you have lower cholesterol and lower blood pressure.
- Healthier bones. Weight-bearing exercises will strengthen your bones and build your muscle, which can reduce your chances of developing osteoporosis.
- Healthier weight. If you're overweight, becoming more active can help you start to reduce body fat as your stamina and fitness levels improve.
- More energy. As your body adapts to increased activity levels you get a natural energy boost, which can make you feel less tired. Researchers say that even low intensity levels of activity can be beneficial if you usually feel very fatigued.
- Improved sleep. Many people find they are able to sleep better at night after having been more active during the day.
- Mental health benefits
- Reduced anxiety and happier moods. When you exercise, your brain chemistry changes through the release of endorphins (sometimes called ‘feel good’ hormones), which can calm anxiety and lift your mood.
- Reduced feelings of stress. You may experience reductions in feelings of stress and tension as your body is better able to control cortisol levels.
- Clearer thinking. Some people find that exercise helps to break up racing thoughts. As your body tires so does your mind, leaving you calmer and better able to think clearly.
- A greater sense of calm. Simply taking time out to exercise can give you space to think things over and help your mind feel calmer.
- Increased self-esteem. When you start to see your fitness, levels increase and your body improve, it can give your self-esteem a big boost. The sense of achievement you get from learning new skills and achieving your goals can also help you feel better about yourself and lift your mood. Improved self-esteem also has a protective effect that increases life satisfaction and can make you more resilient to feeling stressed.
- Reduced risk of depression. If you're more active there's good evidence to suggest that at most ages, for both men and women, there's a trend towards lower rates of depression. In fact, one study has found that by increasing your activity levels from doing nothing to exercising at least three times a week, you can reduce your risk of depression by almost 20%.

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The Impact of Coaching Styles on the Motivation and Performance of Athletes

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Introduction

In sports, athlete motivation can be the key to success. Of the various outside influences that have an effect on athletes throughout their sport experience, the coach-athlete relationship is one of the most important influences on athlete motivation and performance (Mageau & Vallerand, 2003). Throughout the United States, tens of millions of young athletes participate in competitive sports every year on a weekly, and in many cases, daily basis. If there are tens of millions of young athletes participating in athletics throughout the year, this means that they are interacting with millions of different coaches who are also involved in athletics (Britton, Hill & Ward, 2017). Coaches, athletes, parents, and league administrators have the responsibility of gaining knowledge to better understand the impact that these coaches and their coaching styles have on the athletes with whom they associate. The coaching style that a coach develops or adopts can have a positive or a negative effect on his or her athletes, and it is important to understand the impact that attitude, demeanor, personality, and overall leadership style has on athletes. Because coaches play such a vital role in sport teams due to the fact that they are responsible for creating and maintaining an ideal condition for players to fulfill their fullest potential, if a coach does not develop a coaching style that is capable of gaining the attention, respect, and will to improve from his or her athletes, it is likely that he or she will not be able to motivation them in any form, which leads to a lack of success.

There are several coaching styles that any individual coach can adopt or adapt as their own while they are in charge of a group of athletes, regardless of their age, sport, or level of skill. Each coaching style tends to exhibit its' own specific behaviors and characteristics, resulting in different impacts on the athletes with whom they are associated. The two main styles of coaching that can be identified in sport is the autonomy supportive style and the controlling style. Each of these styles has their own positives and negatives attributes, and each style impacts athlete motivation and performance. Previous studies, such as Deci and Ryan's review of SelfDetermination Theory in 2000, discuss a number of psychological needs of athletes, which if are not met, result in motivation and performance of athletes that is not necessarily the desired outcome.

Coaching Styles

Coaching style can be defined as the manner in which a coach conducts themselves while training, instructing, or advising his or her athletes (Reference needed). Although different researchers may refer to each style using a different word or phrase, the collective majority identify the two styles of coaching as either the autonomy support coach and the controlling coach. Each of these styles will be described below. (Add a few references here in alpha order of researchers who conclude there are two styles of coaching)/

Autonomy Supportive Coach

Being autonomy supportive coach, means that the individual takes into account their athletes' perspective, engages with and acknowledges their athletes' feelings, and provide athletes with pertinent information and opportunities for choice (Deci & Ryan, 1985). In a study completed by Mageau and Vallerand (2003), there were a number of behaviors identified that coincide with behaviors autonomy supportive coaches display. These specific behaviors include: providing choice for their athletes within specific rules and limits, providing their athletes a rationale for tasks and limits, acknowledging athletes' feelings and perspectives, providing athletes with opportunities for initiative taking and independent work, providing non-controlling competence feedback, avoiding controlling behaviors such as criticism, controlling statements, and offering tangible reward for tasks, and lastly, preventing ego-involvement in athletes (Mageau & Vallerand, 2003). Coaches who are identified by their athletes as autonomy supportive are also described as pro-social and approachable. In contrast to this coaching style, there is the controlling coach who displays a different set of behaviors.

Controlling Coach

Although the literature tends to focus on the characteristics of the autonomy supportive coach, there are a number of characteristics and behaviors that can be identified in a controlling coach, and the vast majority of these behaviors are in direct contrast to those of an autonomy supportive coach. Controlling coaches tend to provide no choices or rationales for their athletes, and although they do provide feedback, it is often negative (Mageau & Vallerand, 2003). The controlling coach also employs power-assertive techniques that pressure athletes to comply. This can be most closely associated with the concept of punishing athletes for not completing certain tasks, or if they are completed in a non-desired fashion.

Motivation

Motivation can be defined as the reason why an athlete performs or completes an action. Over the years, extensive research has been conducted on the idea of motivation, and more specifically, athlete motivation. A key theoretical framework that is linked to athlete motivation is the Self-Determination Theory (Ryan & Deci, 2000). As a result of this theory, two main forms of motivation have been identified and were consistently discussed throughout the literature and the studies conducted in recent years. These two types of motivation can be referred to using different words or phrases, but are most commonly identified as intrinsic and extrinsic motivation.

Intrinsic Motivation

Intrinsic motivation, which is also known as autonomous, self-determined motivation, occurs when an individual engages in an activity due to a genuine interest in the activity itself (Hodge & Lonsdale, 2011). In the context of sport, intrinsically motivated athletes enjoy the process of improving, which aligns with their goals and values (Donahue, 2006). Athletes who show high levels of intrinsic motivation tend to engage in their sport with increased passion and a high work ethic (Horn, Bloom, Berglund & Packard, 2011).

Extrinsic Motivation

In contrast to intrinsic motivation, extrinsic motivation occurs when an individual is engaging in an activity in order to obtain outcomes that are not self-determined, and these actions are experiences because of outside pressures (Hodge & Lonsdale, 2011). In sport, extrinsically motivated athletes seek to gain rewards instead of meeting their goals and aligning actions with their values (Deci & Ryan, 2000). Athletes who show high levels of extrinsic motivation exhibit motivated behavior in sport only to satisfy external pressures, and in some cases to avoid punishment (Horn, Bloom, Berglund & Packard, 2011). According to Ryan and Deci (2000), and their concept of the Self-Determination Theory, there are four types of extrinsic motivation that vary in their relative autonomy, meaning that different forms of extrinsic motivation can possibly be self-determined, and they are identified as external regulation, introjected regulation, identified regulation, and integrated regulation. The least self-determined form of extrinsic motivation is external regulation, and this form refers to behaviors regulated by external sources such as rewards or other forcible pressures.

Coaching Style Effect on Athlete Motivation

Of all of the factors that have an effect on athletes throughout their sport experience, the coach-athlete relationship is one of the most important influences on athlete motivation (Mageau & Vallerand, 2003). Within the aforementioned review from Mageau and Vallerand, it is discussed that all of the autonomy supportive behaviors presented have been repeatedly linked to enhanced intrinsic and self-determined extrinsic motivation.

In recent years, there has been extensive research conducted on coaching styles and their effect on athlete motivation. Rieke, Hammermeister, and Chase (2008) examined how coaches who were perceived as autonomy supportive, or referred to in their study as “servant leaders,” were associated with their athletes’ motivation. Participants in this study consisted of 195 high school basketball players from the Pacific Northwest in the United States. These athletes were asked to complete a questionnaire that took approximately 30 minutes to finish. After conducting their research and analyzing the data, it was found that athletes who perceived their coach as autonomy supportive not only displayed higher levels of intrinsic motivation, but were more satisfied and task-oriented than athletes who perceived their coach as controlling.

Discussion/Results

An important concept that was reflected in the research that was examined was the idea that there are a number of psychological characteristics that need to be met in order for an athlete to develop self-determined forms of motivation, which is known as the Self-Determination Theory. In

order for an athlete to develop self-determined intrinsic motivation or even self-determined forms of extrinsic motivation, they need to feel autonomy, or feelings of freedom, competence, or feelings that they know and have the necessary skills required to perform the tasks at hand, and relatedness, which is simply feelings of connection towards other individuals, in this case a coach (Ryan & Deci, 2000). The results of the research showed that the behaviors exhibited by an autonomy supported coach are more beneficial towards athlete motivation, as the behaviors they exhibit support and meet the three psychological needs needed to reflect self-determined forms of motivation.

To summarize, the literature that has been examined for this synthesis show results of an autonomy supportive coach having the most positive impact on the motivation and performance of athletes. The autonomy supportive coach exhibits behaviors and tendencies that allow for the psychological needs of athletes to be met in order to feel that they have freedom, the necessary skills to participate, and are connected to the individuals with whom they are associated with when participating in a sport. The athletes who display signs of their psychological needs being met also display characteristics of self-determined motivation, where they find enjoyment in the activity or sport and the determination and desire to improve. When these athletes continue to find enjoyment and desire to improve in their sport, they tend to bring this sense of self-determined motivation forward when competing in their sport, resulting in a more positive and successful performance.

Recommendations

One area that could be explored in regards to this topic is the idea of the correlation between the sport that an athlete plays and the impact of the coaching style on their motivation and performance. The literature investigated in this synthesis focused on a wide variety of sports, but did not examine participants sport by sport.

Another area that could be explored is the concept of coaching styles impact on athlete motivation and success as they get older. The literature reviewed in this synthesis focused on athletes at a specific period of time in their life, rather than beginning the research at one specific point in time and extending the investigation as the athlete grows older.

By examining the current research and the future research topics, a more comprehensive understanding of the impact that coaching styles have on the motivation and performance of athletes could be developed. The findings of this research could be used by future coaches, as well as educators or any individual in an authoritative position, as the motivation and performance of athletes, students, or employees could be related in many ways.

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Role Of Circuit Training In Physical Education And Sports

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Abstract

Circuit training based on scientific knowledge, is a pedagogical process of sports perfection which through systematic effect on psychology physical performance ability and performance readiness aims at leading the sportsman to high and the highest performance. Through active and conscious interaction with the given demands in circuit training, the sportsman's personality develops according to the norms and standards of socialist society.

Keyword: Circuit training, Physical education and sports.

Introduction:

The word training has been a part of human language since ancient time. It denotes the process of preparation for some task. This process invariably extends to a number of days and even months and years. The term training is widely used in sports. There is however, some disagreement among sports coach and also among sports scientists regarding the exact meaning of this word. Some experts, especially to sports medicine understand circuit training as basically doing physical exercise. Several terms used in training e.g. strength training, sport training, technical and tactical training reflect this line of thinking. Circuit training is an essential element of fitness of virtually every sports man and woman. Long gone are the days when coaches believed resistance exercises only added unnecessary bulk to the athlete, hindering their ability to execute skill. The benefits of circuit training to athletic performance are enormous and many. Not only is it an integral conditioning component for power athletes such as shot put, football and rugby players, performance in the pure endurance events can be improved with a well structured strength routine. Circuit training are science of teaching process which is based on scientific principles and aims at preparing sportsman for higher performance in sports competition. Circuit training works for physical exercise and improve their confidence. Physical fitness of human being is the main object of physical education as well as circuit training. So the role of circuit training in physical education is very important.

Objective Of The Study:

- To know the role of circuit training in physical education and sports.

Review Of Literature:

Heavin (2004) studied at Baylor university and the cooper institute show that circuit training is the most time efficient way to enhance cardiovascular fitness and muscle endurance. Studies show that circuit training helps women to achieve their goals and maintain them longer than other forms of exercise of diet. **Kravitz (2015)** claims that perhaps a most profound finding of the study, from a health perspective, is that this investigation clearly shows that performance of this circuit of exercise, this level of intensity elicited oxygen consumption values (39% to 51.5% of VO₂ max) that meet established guidelines of the American college of sports medicine (ACSM) for the recommend intensity (40% to 85% of VO₂mxR) of exercise for developing and maintaining cardio respiratory fitness.

The Role of Circuit Training In Physical Education And Sports.

Characteristics of circuit training

1. **A balanced plan and systematicness:** Circuit training has balanced plan process which touches all the dimensions of individual's personality. Circuit training also a systematic process which victory of winning can be achieved.
2. **Adopt a particular pattern:** Circuit training adopt particular pattern which constantly improved, modified the personality of player sportsman.
3. **Controlled daily routine:** through circuit training a one person can adjust this other activities. Therefore sports person possess a high sense of self discipline. Self discipline quality becomes essential for all champions.

4. **It is individualistic:** Circuit training should be contain with individualistic performance.
5. **Process of perfection:** implementation is major part of circuit training. Circuit training therefore is a continuous process of perfection.
6. **It is based on educational process:** Overall development of person can be formulated with the help of circuit training. So education process goes on during training.
7. **Develops hidden qualities:** The circuit training aims to find out hidden qualities of sports person and to become aware about one's physical fitness.
8. **Helps in confidence building:** The basic circuit training is to believe one can win. The most useful tool in building the perfect attitude is practice. It is said that "Practice made man perfect" So through practice sportsman builds his confidence.

Principles of Circuit training

- | | |
|------------------------------------|---------------------------|
| 1. Adaptation | 2. Overload |
| 3. Progression | 4. Specificity |
| 5. Use and disuse | 6. Continuity of training |
| 7. Planned and systematic training | 8. Constitution |

Benefits of circuit training

1. Sportsman displays the positive attitude towards an active lifestyle.
2. Players play better.
3. Performance for the victory.
4. Sportsman develop physical fitness and enhance physical growth.
5. Exhibit more positive attitude towards physical education, physical activities games.
6. Develops positive thinking.
7. Have less aggressive behavior of sportsman

Conclusion:

1. Circuit training are common for developing the strength and size of skeletal muscles.
2. Circuit training provide vigorous activity in a number of fitness components.
3. After the circuit training, respondents shows positive changes in general fitness, muscular strength and speed.

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Role Of YOGA In Enhancing The Performance Of The Player**Dr. Bhaskar Mahadeorao Sawarkar**

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Abstract:

The paper discusses the effect of practicing YOGA and importance of practicing by a Player and how it enhances the performance of the Player. Yoga is a spiritual and ascetic discipline, a part of which, including breath control, simple meditation, and the adoption of specific bodily postures, is widely practiced for health and relaxation. As yoga grows more popular in the west, we are seeing rapid incorporation of yoga at the professional sport level. How Yoga increases the flexibility, increases the strength, muscular strength, and the physical and the mental condition of the player or the youth.

Introduction:-

This paper discusses the importance of a regular yoga practice for sport specific training. The following material offers an argumentative analysis on sport related injuries and performance and how yoga can benefit the individual athlete and team, as a whole.

Adequate level of flexibility is needed for the maintenance of the functional independence and performance of activities of daily practice and the living of the player. Yoga is a great tool for athletes to teach them to listen to their bodies. In other words, yoga provides a platform for working an intelligent edge – sustainable intensity. Endurance athletes or marathon runners know this imagery all too well. A yoga practice should be deep enough to feel the benefit, but never so deep that it causes pain or injury. Working to the edge allows opportunity for growth, but athletes need to be smart and not over competitive.

Yoga is thought of by many as a way of life. It is practiced not only for the stress management but also for the good physical and mental health that is the Psychological thinking of the player, and to live and play in the more meaningful way. Yoga is recognized as one of the most important and valuable heritage of India. Yoga is part of living and Asana is scientific procedure. Asana is an exercise that prolongs life. It is in fact that 'ASANA' is the third step of 'YOGA' system of Maharshi Patanjali. There are varieties of asanas which can be performed on different positions and every asana has its peculiarity from the view points of the flexibility of different body parts and stability of the mind the benefits of the asana are multifarious.

Purpose of the study:-

The purpose of this thesis is to express why athletes should be incorporating yoga into their weekly training regimen and how that can be accomplished to enhance the performance of the Player by the means of YOGA Asanas

Benefits of YOGA:-

The benefits of yoga provide both instant gratification and lasting transformation. In the fitness world, both are extremely important. Too much time with too few results can be incredibly discouraging, and monotonous routines week after week can lead to stagnation. Yoga can change your physical and mental capacity quickly, while preparing the mind and body for long-term health.

Following are the general benefits of Yoga:

- Increased flexibility
- Increased muscle strength and tone
- Improved respiration, energy and vitality
- Maintaining a balanced metabolism
- Weight reduction
- Cardio and circulatory health
- Improved athletic performance
- Protection from injury

Methodology:-

It has been proven that athletics and physical activity can serve as a stress reliever as well. If a student-athlete is experiencing stress with scheduling/time demands, loss of star status, grades, injuries, or the possibility of sitting the bench, it can be quite overwhelming to have all these stressors concurrently. The interaction of these multiple stressors presents a unique problem for the student-athlete and can compromise total well-being.

For this study 30 male students studying in B.Com 1st year of Gopikabai Sitaram Gawande College, Umardhed, Dist- Yavatmal, Maharashtra were randomly chosen as subjects and almost from the same socio-economic group. The ages of the students were ranging 18 to 23 years. All the groups were divided into two equal groups of 15 students in each. One was treated as the experimental group and the other was treated as the control group. All of them were taking part in routine physical education program as per the schedule of the college. Selection of the Yoga asanas were made with an eye to those which have, according to the Yoga authorities, beneficial effects on stretch ability of muscles viz; Setubandhasana, Ardha-Matseyendrasana, Vajrasana, Halasana, Ustrasana, Dhanurasana, Pachimotanasana, Bhujangasana, Chakrasana, Baddha-Padmasana, six days in a week for duration of three weeks under the direct supervision of the researcher. The control group did not practice any Asanas during the period of Three weeks.

Conclusion:-

Among yoga's many benefits, stress relief ranks at the top. Practicing Yoga offers numerous benefits such as physical, psychological, and economical benefits. When the sports or any game a player plays when coupled with the Yoga improved the concentration of the player and increases his abilities such as to think wisely in complicated situations and take numerous decisions at the same time and increases the physical strength of the player and hence which results in significant reduction in the stress level.

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Reviews On Nutrition For Sports Persons

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Abstract

Sports is probably the world's most popular word, sports played in every nation at varying level of competence. Nutrition plays a vital role in the health of players. In India the increasing competitiveness of sports raised the concern about the health of the student athletes, which may be comprised due to the inadequate nutrient intake. This type of compromised nutrient intake may be influenced by the different factors such as lack of time, hectic training schedules or increased emphasis on physical features, such as leanness and body image. Athletes are not consuming adequate amount of energy, this can not only affect performance, but can also influence the risk of injury, bone health and reproductive health of these athletes.

Keywords: Nutrition, Players, Performance and Sports

Introduction:

Eating patterns are behavior that develop over the years and may be influenced by physiological and social factors. Of the four meals (breakfast, lunch dinner and snacks) typically consumed by individual, breakfast is considered the most important meal of the day and has been observed to influence cognitive abilities and academic achievement in school and college aged students omission of breakfast could significantly alter meta metabolism, resulting in reduced nutrient availability to the brain, which in turn can influence an individual behavior.

Objective Of The Study:

To review the nutritional pattern of sports persons

Review Of Literature:

Craig and Richardson (1999) observed changes in the performances based on the size of the lunch consumed, with an increase in the sports performance after a small and light meal compared to a large and heavy meal. **Siega (2000)** stated that majority of the athletes took four meals per day. However, among sports College maximum number of respondents (68.33%) were taking four meals per day pattern. Rest 31.67 percent of respondents from sport college were taking four meals per day pattern. **Costill (2001)** have noted that the afternoon snacks have positive effects on cognitive performance. Because of this diverse effect of meals it is important to monitor eating patterns of student athletes since their food consumption patterns can affect their training and performance. **Beruke(2004)** also reported that majority of the athletes followed five to six meals per day pattern, This may be due to most of the respondents from sports college got economical supports from the college and followed the diet recommended by the dietitian therefore, they used to followed five meals per day pattern where as the respondents from Non-sports University/college does not aware of the importance of regular meal pattern so they generally followed four meals per day pattern.

Research Methodology:

1. A dietary survey was conducted as described by Swaminathan (2004). The food consumption frequency was recorded in terms of cereals, pulses, green leafy vegetables, roots and tubers, milk and milk products, fruits, egg, meat and fish, fats and oils and sugar and jaggery. The food intake for one day was recorded by 24 hours dietary recall method. Subjects were provided a bowl to measure the food consumed over a period of one day consecutively. The cooked weight of food was converted into raw weight according to the standardized weight of the cooked food determined in the laboratory. The average daily nutrient intake was calculated with the help of the food composition tables of **Gopalan et al (2004)**. The calculated daily nutrient intake in terms of energy, protein, fat, iron, calcium, vita-C, B-carotene, thiamine, riboflavin and vitamin B12 were then compared against recommended dietary allowance (RDA) for Indian (**ICMER 2000**) 2. A checklist type of questionnaire was selected, as it is a reliable method to elicit information and dietary pattern of players. The questionnaire helped to elicit the required information regarding food habits and nutrient intake etc. 3. Assessment Of Nutrient Intake: 24 hours dietary recalls method was adopted and nutrients intake per day was calculated (Swaminathan, 2004). Calculation of nutrients intake was done with the help of the nutritive value of Indian foods and compare with RDA given by ICMR

Conclusion:

1. Athletes should consume a high-carbohydrate diet that provides 51 to 57 percent or 4.5 to 11.3gm/kg/day total energy intake for male athletes.
2. Mean of total protein intake ranged from 12 percent and 17 percent or 1.1 and 2.6 gm/kg/day for male athletes.
3. Mean to total fat intake ranged from 30 percent to 37 percent total energy intake for male athletes.
4. For physically active persons, adequate amounts of micronutrient are needed in the diet to ensure the capacity for increased energy expenditure and work performance.
5. Body weight and composition can affect exercise performance so precise nutritional evaluation should begin with anthropometric assessment measurement of weight; height and calculation of body mass (BMI) are recommended.

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Process Of Evaluation In Physical Education And Sports

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Abstract

Evaluation of the programme, facilities, equipment and performance must be continuous and regular so as to keep every one alert. No one would like to be evaluated lower than the other(s). It is basically concerned with estimation of the quality and quantity of operations, function and performances, and the factors and forces crucial to the realization of objectives and their effectiveness vis-à-vis inputs in terms of energy, effort and resources.

Keywords : Process, evaluation, physical education and sports.

Introduction:

Evaluation is a comprehensive term covering all aspects of physical education – values, philosophy, objectives, programmes, processes, procedures, performance achievements etc. As an important function of managerial system, evaluation encompasses “organization as a whole, the units within it, and the members of the organizations”. Closely related to appraisal and a part of controlling, it is a continuous process. Its major aim is to assess the ‘effectiveness of the organization’ and its functions as well as performance of all individuals under an organization / institution. “checking feasibility of an idea, testing the consequences of a proposed solution, evaluating group performance, helping the group to evaluate its own performance against standards”.

Objective Of The Study:

To know the process and steps of evaluation in physical education and sports.

Purpose Of Evaluation:

Evaluation serves many purpose in physical education depending on situations and setting in which it is done.

When undertaken by the physical education and sport teacher, evaluation helps to

- 1) Reveal the extent to which an activity / subject has been learnt by students;
- 2) Find out whether or not learning experiences provided have been conducive in bringing about desirable change in behaviour,
- 3) Spot out strengths and weaknesses in students’ personality profile and character;
- 4) Pinpoint drawbacks in the systems of incentives and awards for performance and achievement used in physical education;
- 5) Devise methods of stimulating interest in physical education among students, parents and other teachers;
- 6) Provide better counseling and guidance to the students backward in skill and knowledge and to those aspiring to excel in sport and finally,
- 7) Effect modification and changes in the methods of teaching, coaching and organizing in the light of experiences.

When Used By The Administrator, Evaluation Serve The Following Purpose :-

- 1) To determine the degree/extent to which the objectives of the organization, institution or a particular programme are being achieved;
- 2) To assess the worth of the programme in terms of its utility, importance and effectiveness for the community;
- 3) To compare the programme with the recommended standards and / or those set by other institutions;
- 4) To assess teacher-competency and effectiveness of teaching techniques and methods.
- 5) To spot out strength and weakness of the plans, programmes, operations and functions and to suitably modify them;
- 6) To take short-term and long-term measures to correct inadequacies and make up deficiencies in “men and materials” thereby improving the standard of services and programmes.
- 7) To develop “work culture” among teachers, administrative staff and student leaders;
- 8) To introduce innovations in the methodology of teaching, coaching and training;

- 9) To create a basis for assessment of personnel for placement in positions of higher responsibility or salary scale (s); and
- 10) To make diagnosis and prognosis of the on-going practices in academic, organization and administration with a view to set standards for performance.

STEPS IN EVALUATION

In an organized endeavour, the nature, dimension and depth of evaluation varies from situation to situation, and from one compartment to another. Its basic points of reference as given below are nevertheless universal.

1. Plan out and specify the judgements and decision to be made (setting up targets in term of men, methods and /or material- processes and product – to be evaluated and low)
2. Pinpoint the information needed (quantitative and qualitative data required and on what aspects)
3. Locate information already available (fish out the results and records of previous surveys, tests, inspections, competitions etc. to facilitate comparison)
4. Explain when and how to obtain desired information (methods, means and techniques of culling, collecting and extracting information)
5. Select or tailor information gathering instruments (tests, inventories, check lists, score cards, schedules etc. according to the sort of information required)
6. Obtain required information (by administering tests, conducting interviews or surveys either yourself or through trained persons).
7. Record and analyze information (recording, systematizing, summarizing and analyzing information by using statistical or rational techniques as the case may be)
8. Form judgements (considered opinions, logical inferences, and verdicts backed up by factual analysis).
9. Make decision (with regard to promotion and demotion of – people reward and punishment, improvisation and modernization of equipment, facilities)
10. Proclaim or make public the results of evaluation so as allow people to judge things for themselves.

Conclusion :

Evaluation subtly assesses the extent to which learning experiences and teaching environment provided have been “effective” in bringing about quantitative and qualitative change in the programme, personnel and performance vis-à-vis the preset objectives and goals.

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The Role Of Physiotherapist In The Management Of Sport Teams

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Introduction:

A 'Sport Physiotherapist' is a Physiotherapist who has completed the Diploma in Sport Physiotherapy through Sport Physiotherapy. The Diploma holder has experience in the care of athletes of all levels, be it the high performance national or provincial level athlete or the everyday active. The Education system of allows the graduate physiotherapist to gain experience and education through courses in areas such as athletic taping, protective equipment, emergency care, concussion management and exercise prescription. Physiotherapists gain valuable field experience towards their Diploma by working closely with experienced therapists in a mentorship program. The Sport Physiotherapist is qualified to work with High Performance athletes in all settings including daily training and competitions.

The team physiotherapist has become one of the most important assets any coach can have when working with a team. The physiotherapist brings dynamics to the warming up, conditioning, muscle activation as well as the recovery of the players. Due to the high intensity of matches, tournaments and training sessions a scientific approach towards the correct prevention, management and rehabilitation of sport injuries has become a necessity when managing any team.

Overview for Physiotherapists:

Physiotherapy students can begin the education program by becoming a student member of Sport Physiotherapy. Students are eligible for reduced rates at many of the SPC supported courses. A student physiotherapist can attain the Certification Candidate level of the SPC program. This opens the door to the Mentorship program as the student graduates and begins working towards the Certificate in Sport Physiotherapy. While in University, the physiotherapy student often has the opportunity and exposure to the world of Sport Medicine. Students interested in a career in Sport Physiotherapy can gain experience working with team therapists and varsity athletes.

Graduate Physiotherapists gain valuable clinical and field expertise through Sport Physiotherapy Canada. Clinically the Sport Physiotherapist treats a wide range of injuries. Depending on the job setting, they may treat injuries sustained at work or during a car accident. Active Canadians of all ages sustain injury due to overuse, training errors or trauma. Skills learned while completing the Certificate or Diploma in Sport Physiotherapy are used daily in the clinical setting. Athletic taping, exercise physiology, functional return to activity, protective equipment knowledge are important skills for clinical orthopedic therapists.

Information for the public looking for a physiotherapist:

A Sport Physiotherapist has a background in orthopedics and adds the skills learned during the certificate and diploma training to his/her treatment tools. The skills of athletic taping can be applied not only court side, but more often in the clinical setting. The young soccer player with a sprained ankle will be more comfortable and heal faster when supportive taping is applied at the end of treatment. The same is true for the person who twisted their ankle while putting out the garbage! The Sport Physiotherapist has experience with the Return to Sport or Work or Life aspect of a treatment plan. A carefully planned Progressive Exercise program will allow the athlete or worker or average person to return to activity in a safe manner, reducing the risk of re-injury. A thorough understanding of the symptoms of concussion and its current treatment protocols allows the Sport Physiotherapist to provide proper guidance to not only the athlete that has sustained a concussion in sport but also any person who may have suffered a head injury at work, in a motor vehicle accident or from a fall.

Sports Physiotherapist in team sport:

The basic function of a Physiotherapist in Sport is the application of treatment by physical means: electrical, thermal, mechanical, hydraulic, and manual therapeutic exercises with special techniques. The Physiotherapist in Sport focuses its objectives in the field of sport and physical

activity. Physiotherapy in Sport, this is the set of methods, techniques and performances, which through the use and application of physical agents prevent, recover and readjust a person with sport or exercise injuries at different levels.

The scope of Physiotherapy in teams sport:

Outreach in sport: The physiotherapist will advise the sports people and professionals linked to the team and perform any actions that help improve the conditions of avoidance of injury to the athlete.

Prevention: The Physiotherapist in Sport should be alert to avoid as far as possible all those factors that might bring up injuries by sports in general and of each particular sport, associated injuries and / or consequences of injury primary, and its possible recurrence. This includes conditioning, training and pre-match activation.

Recovery:

The Physiotherapist in Sport should regain the functionality of the athlete as quickly as possible, accelerating the biological processes of recovery from injury, limiting his training as little as possible and ensure that they are reinstated to the team with the greatest prospects for success.

Rehabilitation:

The Physiotherapist's aim, after recovering from injury, is to put all his effort into the regaining of muscle strength and mobility. The Physiotherapist in Sport should regain the functionality of the athlete as quickly as possible, accelerating the biological processes of recovery from injury, limiting his training as little as possible and ensure that they are reinstated into the team, with the greatest prospects for success.

Teaching: The Physiotherapist in Sport should aim to improve all the facets of knowledge that contribute to the training of top professionals in team sport.

Research: Physiotherapists in Sport should conduct studies that can contribute to the prevention of injuries, the treatment by the physiotherapist and the enhanced performance of the team.

What does the team Physiotherapist do in practice?

- Assessment and Treatment of acute and chronic injuries on rest days.
- Stretching before training or matches.
- Muscle activation before training and matches.
- Pre match strapping / treatments.
- Medical cover at training sessions and matches.
- Medical screening and injury prevention.
- Liaising with management regarding the severity of injuries and the conditioning of the team.
- Referral for Scans / Surgery.
- Rehabilitation of the injured player.
- Recovery sport massages, hydrotherapy pool sessions and recovery ice-baths or contrast baths after matches.
- Psychological sup

Assessment and treatment of acute and chronic injuries:

Acute Injuries require early assessment and intervention – Anti-inflammatory treatment modalities. – Importance of compression and ice – Intensive Physiotherapy, strengthening, mobility and regaining function. – Rehabilitation of the injury and maintenance of full body strength. – Prevention of recurrence by giving home exercises, stretching and proprioception exercises • Chronic Injuries – Ongoing management and training modifications – Ongoing rehabilitation

Stretching and muscle activation before training or matches:

- The physiotherapist is a specialist in the field of applying the correct stretching and stretching methods to prevent injury during the team warm up prior to a game.
- The use of evidence based muscle activation techniques to activate local and global muscle stabilizers before a game.

Pre-Match Strapping and Treatment:

- A large percentage of players use prophylactic strapping.
- The application of kinematic taping for muscle activation.
- Numerous players are playing with injuries and require treatment pre-match to improve performance.

Medical Cover at Matches and Training:

- Immediate Medical Management on the Field of play.
- Assessment and decision making on continuing play.
- Management of blood injuries, sprains, contusions and hydration of the players.

Medical Screening and Injury Prevention:

- Based on previous injuries and medical history of the player.
- Biomechanical assessment identifying weak links and treatment / rehabilitation programme.
- In season rehabilitation sessions X2 a week, small groups on rotation.
- Individual sessions.

Liaising with Management and Conditioning of the team:

- Introducing players back from injury.
- Reducing volume for players with chronic injuries
- Building preventative exercises into gym routines.
- Fitness to play

Medical responsibility to the player.

Referral for Scans and Surgery:

- Close links with hospitals and consultants.
- Using only the best surgeons in the region.
- Able to refer at short notice.
- Discussions and joint management of athlete to ensure a quick and safe return to training / playing.

Recovery after matches:

- Cool down and after match stretching.
- Sport massages.
- Hydrotherapy pool sessions.
- Recovery ice-baths or contrast baths after matches

Psychological Support:

- The player feels isolated when he is injured.
- Players spend a great deal of time in Rehab Centre.
- Long term injured players spend more time with medics than team mates.
- Injured players will talk to medics about things they will not mention to other members of the management team.
- Players know that conversations with the medical staff are confidential.

Conclusion:

The expertise gained in dealing with sports injuries allows these Physiotherapists to guide the athlete in a safe and efficient manner back to full activity. The training done by these physiotherapists involves over hours in on-field care in a variety of sports. The examination process overseen by Sport Physiotherapy have achieved the standard and have expertise in the treatment of sports injuries.

The skills of a Sport Physiotherapist include athletic taping, functional return to sport training, exercise physiology, sport massage, and concussion evaluation and management. The Sport Physiotherapist has the skills and ability to work with sport organizations to help establish a comprehensive medical support system for an organization, whether it is at the grassroots level or the high performance level. Many of the Diploma holders in Sport Physiotherapy have worked with top athletes at all levels of sport. Sport Physiotherapists work at local, provincial, national and world championships and join Staff at such events as the Commonwealth Games, the World University Games and the Olympic Games.

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Development Of Physical Abilities And Physical Condition With Social Values In Indian Education System

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Abstract:-

The determination of the research paper is to investing the Development of Physical Abilities and Physical Condition with social values in Indian education system. Physical Education & Sports forms a significant part of educational structure even when it never received the importance it merits. Even though it is included as part of the prospectus from the early stages of education, it has never been taken extremely Development of Physical Abilities and Physical Condition. Social values plays vital role in Development of Physical Abilities and Physical Condition in Indian society.

Key words: Physical Education, Physical Abilities and Condition, Social value

Introduction

Physical Education and Sports is one of the key measures and also essential part of education in any country at any fact of time. Thus each country should try to set out an outline of action plan for raise Development of Physical abilities and improve Physical Condition in Educational System. Physical Education and Sports is watching a remarkable boom in the media spotlight all over the world including India while it is being seriously neglected within the educational system. Physical Education act as well as the provision of possessions for the nation and in the creation of appraisal system in education developments and it paths the development physical education in a country. At present associate to earlier years and now we can come across the weakening of physical education in education associate to present is one needs to overcome the hurdles and battles to increase the construction and organization status in around to develop the global correction in physical education and sports.

The assistances of physical gained from physical activity such as infection inhibition, protection and injury avoidance, reduced morbidity and previous mortality, and increased mental health. The physical education is only the path where youth learn near all of the assistances grown from being physically dynamic as well as the skills and acquaintance to integrate safe, adequate physical activity into their lives, in addition, how to interact with others (National Association for Sport and Physical Education, 2001). Moreover, it is observed that physical education sessions should be easy to get from preschool until secondary. It target to deal with a variety of physical activities and encourage those who are lack of leaning to take up planned competitive sports. This includes discard predictable methods of physical education coaching and concentrating more on the personages' needs and abilities, as an alternative of the enjoyment of physical activity. As time for physical education is generally limited within the school time schedule and curriculum, its content must be valuable and resourceful (Fox and Harris, 2003). Further Gonzalez et al. (2010) believed that curricular physical education within any sport, not only talent development scheme but a high development in social values among youth. Therefore, the purpose of this study is to the Development of Physical abilities and Physical Condition with social values in Indian education system.

Physical education & sports in Indian society

Physical Education & Sports forms an important part of educational system even when it never received the importance it deserves. Even though it is included as part of the curriculum from the early stages of education, it has never been taken seriously by the educational administrators, the academicians and the students.

Physical education defined

The problem of defining Physical Education is not only that the term is broad based and complex, including so many kinds of phenomena, but also it means different things to different people. Someone has suggested that Physical Education is whatever Physical Educators do. J P Thomas sums up that Physical Education is education through physical activities for the development of the total personality of the child and its fulfillment and perfection in body, mind and spirit. Even though these definitions differ significantly with regards to emphasis on different aspects, they still

have many common elements. Some of them may be noted as: Physical Education is a phase of the total Education process. It is the sum of total experience and their related responses. Experience grown and responses developed out of participation in big muscular activities. All-round development of individual - physical, mental, social, moral is the real aim of Physical Education. It is the same as in General Education.

In the Indian context, Physical Education is perhaps the only aspect of education which has not been given due attention. That is due, most probably to the fact that we have remained satisfied with that the British have handed over to us, with no sincere efforts on our part to prepare any concrete and far-reaching programmed for Physical Education especially suited to our conditions. We have ever-stressed the academic aspects, the physical one being relatively untouched. This has resulted in an increasingly large number of Indians who are neglecting their bodies, to whom Physical Education is similar to physical training, whose physical fitness is not what it should be they are getting 'soft'. One of the main objectives of any Physical Education activity is to maintain and improve the health of the youngsters in our school and colleges. And the School has the responsibility to see that all students achieve and maintain optimum health, not only from a moral point of view, but from the standard point that educational experience will be much more meaningful if optimum health exists. A child learns easier and better when he is in a state of good health. Even ones' values have much to do with health building and destroying activities. Unfortunately, a large number of people suffer from 'value illnesses', i.e. They know what they are supposed to do to keep well, yet they fail to do so. They know that tobacco smoking can cause death from Lung Cancer; even then they do not give up smoking. They understand how alcohol affects the driving ability, yet they drive in a state of drunkenness. They appreciate the role of regular exercise in weight control, yet they do little to alter their sedentary way of living. Education and health & medical authorities have, therefore, long recognized the need for a programmed of director Physical Education activities in school curriculum. It is during the formative and rapidly growing period of elementary school-age that foundation of proper habits, attitudes and appreciations toward all physical activities, including play is laid and desirable citizenship traits acquired, so that in adulthood, he will be equipped with the knowledge, sound thinking processes, physical stamina and emotional maturity live effectively in an ever-changing and highly complex society. In that respect, teachers bear a major responsibility in answering that challenge effectively. It is said, "An idle mind is the devil's workshop".

Physical Education Programme

Physical education prospectus can offer youth with the appropriate knowledge, skills, behaviors, and self-assurance to be physically active for life. Moreover, physical education is the root of a school's physical activity programme. In the same manner, participation in physical activity is correlated with academic advantages like improved attentiveness, memory, and classroom behaviour. According to World Health Organization (2001), it includes development of physical abilities and physical conditioning; motivating the students to continue sports and physical activity; and providing regeneration activities.

Development of Physical Abilities and Physical Conditioning

Physical education facilitates to build up and practice physical fitness entails basic motor skills (Barton et al. 1999) and gets hold of the competency to perform various physical activities and exercises. Physical fitness builds mentally sharper, physically comfortable and also able to deal with the day-to-day demands (Jackson, 1985). Further, endurance, flexibility, strength and coordination are the key components of physical fitness. Moreover, to execute the physical exercises and sport, youth must be developed basic motor skills.

Motivating the Students to Continue Sports and Physical Activity

Teachers always motivate the youth to contribute in sports and physical activities as well as academic education programmes. Further, they always direct and instruct them, sports and physical activity are vital part of academic education. They have also guided the youth; we cannot think wholesome development of human personality without sports and physical education. Moreover, they have also to manage a meeting in which discusses their parents about the importance of sports and physical activity as well as academic education. Further, teachers must engage parent or family members in physical activity, for example, by giving youth physical activity 'homework' which could be performed together with the parent's viz., family walks after supper or playing in the park (WHO, 2001).

Providing recreation activities

Institutions must focus on implementation of physical activity course which facilitate to make enjoyable participation to all youth in physical activity programme which provides the youth with a collection of ideas for active games and activities and the skills and fitness to play them (Fox and Harris, 2003) in order to reduce the stress, anxiety, drug abuses and obesity.

Promoting the Social Values among Youth

Physical education and sports play a vital role in promoting the social values among the youth. Moreover, physical education is considered as a school subject, which facilitate to prepare the youth for a healthy lifestyle and focuses on their overall physical and mental development, as well as imparting important social values among the youth such as fairness, self-discipline, solidarity, team spirit, tolerance and fair play (Bailey, 2005).

Conclusion

Physical Education thus contains in helping a systematic all-round progress of human body of scientific technique and thereby conserving strange Physical Fitness to accomplish one's memorable goals in life. Hence, any country Development of Physical Abilities and Physical Condition with Social values in Indian education system with developing a progressive attitude and self-assurance among Physical Educators themselves and make them feel, Physical Education need not exist in the sideline of the Indian Educational System.

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Muliple Dimensional Perspective Of Sports Management

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Abstract

Man, motive and material are fundamental to physical education and sport whose objectives may be impossible to achieve unless the former are kept in a right perspective and managed through an integrated approach. Precisely, the central focus of physical education and sport is man – the developing child and the blooming athlete. Physical educators, coaches, administrators and sport scientists play their prescribed roles in close co-operation with one another to facilitate learning and performance.

Key Words : sports, management and physical education of sports management

Introduction :

It is ironic that sports management – as a subject of study – is no area of specialization in the scheme of professional preparation for physical education personnel. The run-of-the-mill breed physical thronging out of colleges of physical education with high profile degrees still continue to support the jack-of-all-trade label. They are not recognized as “managers” in technical sense of the term. One of the several reasons for this murky situation is that sport management-basically addressing itself to properties and problems of facilities, equipment, personnel and programmes-is relatively a new area of human endeavour in the current scenario and is evolving itself as a distinct science. It has yet to standardize numerous processes and procedures in the light of changing spectrum of sport dynamics, and innovations in the world of business management. A part from this, rudiments of sports management are found scattered in the literature belonging to various allied subjects such as engineering, architecture, business, behavior sciences etc. the dearth of handy standard texts and manuals on various aspects of sports management seems to be another hurdle in the way of building up a cadre of able sports administrators and managers out of a multitude of physical education teachers and coaches.

Sports Management: Meaning And Definition

1. It provides right direction to the policies, practices and programmes.
2. Sound management policy facilitates speedy achievement of the aim, objectives and goals of physical education.
3. Principles of physical education and sports cannot be put to evaluation without good managements.
4. Management helps physical educators to make wise use of resources economise on energy and take intelligent decisions.
5. Management opens new vistas for career-selection for those who would like to make physical education and sport as a profession-a means of their livelihood. A well-managed department of physical education may offer numerous opportunities for people to acquire the knowledge of managerial concepts.
6. Continuity in planning, implementation of short-term and long-term plans, evaluation of programmes and policies, modification of practices and redelineating objectives and goals is impossible without understanding principles of management. Foundation to all organized human endeavour including physical education is the skill of management.
7. Management serves as an instrument of establishing inter-personal relationship. People of various calibre learn to put their heads together for the achievement of the common goals and to cooperate with others outside their profession- audience, spectators, parents etc.

Sports Management Motive :

The motive of sport management is to seek and strive for resources – both material and human – and effectively utilize them so that the predetermined objectives of an organization, institution or enterprise are realized.

Review of Literature :

According to **chelladurai (2015)** sports management means co-ordination of the efforts of different people toward a common end. **Anand (2016)** viewed physical education is neither a business nor an industry , it is a field of education where the inter action is better understood as a means of socialization process than a trade transaction. Sports management is an essentially in education too.

Multi-Dimensional Perspective Of Physical Education And Sports

(a) **programme of activity**: movement education, motor skills, performing art with its recreational and competitive aspects,

(b) **an instructional process** : an educational activity, scientific art of training in which teachers and coaches are involved.

(c) **a field of organization and administration**: conduct of classes, tournaments, competitions from school intramurals to the Olympic Games involving field staff, managers, organizers, administrators etc.

(d) **an area of research and development** : data collection, research, experimentation, setting up and operating research laboratories, developing new theories and principles of performing, organizing, training and competing, etc.

Conclusion :

The success of physical education is dependent on the managerial abilities and skills of its personnel. The curricula of current courses of physical education is suitable to produce “teachers and coaches” rather than manages. The fast-changing sport scenario calls for sound managerial training for physical educators.

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Yogic Exercises For Enhancing Sports Performance

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Abstract

The yogic practices to every individual in general and sportsmen particular, benefited their performances. Yogic exercises are holistic that incorporates both the body and mind. They builds and strengthens the body through a series of postures and stretches. Throughout the series of postures, you have to concentrate on controlling breathing. Although yoga is physically beneficial, it may also be used to be socially beneficial. Yoga views the person as a whole; as unique combination of body, mind and consciousness or soul, and its techniques maintain that body, mind soul harmony.

Keywords: Yogic Exercises, Sports Performance and Physical Education

Introduction:

Yoga is a very ancient discipline it is an ancient Indian system which helps to keep person physically and mentally. it, and it is proved by science that yoga helps to improve concentration which is a key Sector for achieving success in sports competition. The term 'Yoga' is derived from the Yuj which mean Samadhi it also means a deep trance or an absolute of awareness. It can also be describe as the highest control of mind.

Objective Of The Study:

To know the effect of Yogic exercises for enhancing sports performance.

Review Of Literature:

Sing (2015) reveals that yogic exercises can help in developing various qualities which are pre-requisites for sport person, eg physical fitness, leadership, motivation, winning nature patience, decision making, prevention of sports injuries and rehabilitation of athlete. **Shaw (2016)** observed the effect of after training selected yogasana an students health related physical effects

Exercise Health Benefits:

1. Muscle tone . Consistently practicing yoga leads to better muscle tone.
2. Reduced oxygen consumption. Yoga consumes less oxygen than traditional exercises routines, thereby allowing the body to work more efficiently.
3. Breathing. With yoga, breathing is more natural and controlled during exercise. This type of breathing provides more oxygen-rich air for your body and also provides more energy with less fatigue.
4. Joint range of motion. A study at the University Of Pennsylvania School Of Medicine indicated that joint range of motion was improved by participants who practiced yoga.
5. Eye-hand coordination. Without practice, eye-hand coordination diminishes. You maintain and improves eye-hand coordination.
6. Reaction time. Research done in India shows that reaction time can be improved with specific yoga breathing exercises in conjunction with an already established yoga practice. The improvement was attributed to the faster rate of processing and improved concentration gained from yoga.
7. Endurance. Working the entire body, yoga improves endurance and is frequently used by endurance athletes as a supplement to their sport-specific training.

Yogic Exercises In Sports Prepration:

1. Supplemental exercises for supplemental training
2. Compensation exercises for correcting muscles disbalance
3. Regeneration exercises for speeding up recovery
4. Activating exercises for increasing body activation
5. Exercises for decreasing body activation
6. Exercises for warm-up and concentration
7. Exercises for cool-down and concentration

Yogic Exercises And Its Physical Effects

Yoga Supplemental Exercises (YES)

Are an important means of preparation in each Sports for supplemental training which means practicing Sports and activities other than our Sports in order to built overall fitness. Such overall fitness can not be achieved with practicing a single Sports activity. Ex. Development of limited range of muscles in Fencing.

Yoga Compensation Exercise (YCE)

The task YCE is to correct and compensate for the developed muscles disbalances by regular and systematic practice of compensation exercise i.e. YCE.YCE which corrects the one sided effect of training by promoting general harmonious development of the body and by improving the individual physical system.

Yoga Regeneration Exercises (YRE)

YRE are based on the principle that muscles will release and relax after stretching for a specific time period in a tense and Isometric position against specific Resistance. This result in inhibition of motor neurons. YRE significantly influences the Vital nueroVegetative plexuses (Chakras) and the endocrine glands. By doing this the metabolism and overall regeneration of the athlete is positively enhanced.

Conclusion :

Yoga is one of the best therapies for health. It not only gives physical health but also mental well being. It is the only therapy to reform the mental physical well being of human being which no other therapy can give.

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Physical Fitness And Sports Performance

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Abstract

Physical fitness is the state which characterizes the degree to which a person is able to function efficiently, fitness is an individual matter it implies the ability of each person to live most effectively within his potentialities. Stress, obesity, diabetes, acidity and much more diseases are the gift of our unhealthy lifestyles. Due to lack of physical activities not only elders but youngsters are also facing plenty of problems in their life. If we want to avoid it then the only answer is fitness & wellness.

Keywords: Fitness, health and sports.

Introduction :

Total Fitness is a state in which then individual, family and organization can sustain optimal well-being and performance under all conditions. Physical fitness is the ability to physically accomplish all aspects of the mission while remaining healthy and uninjured. Fitness plays a critical role in your overall health today, most of the health disorders are a result of an unfit body and bad food habits. Problems like body ache and muscular pain are the common consequences of sloth lifestyle. Inadequate exercise leads to weight gain and obesity. Lack of physical activity is mainly responsible for much health complication in children and youngsters. To prevent these health troubles, a proper fitness is essential for everyone. Fitness should ne a key component in anybody's life simply for the fact that it makes you feel better.

Total fitness domains : are physical fitness, psychological fitness, behavioural fitness, medical fitness, environmental fitness, nutritional fitness, spiritual fitness, and social fitness.

Fitness

1. Physical fitness is define as “a set of attributes that people have or achieve that relates to the ability to perform physical activity”.
2. Being physically fit has been defined as “ the ability to carry out daily tasks with vigor and alertness, without undue fatigue and with ample energy to enjoy leisure –time pursuits and to meet unforeseen emergencies”
3. Fitness means improved physiological state that leads to improved health and longevity.

Types of fitness

There are two types of fitness

- A. Health Related Fitness (HRF)
- B. Skill Related Fitness (SRF)

Health related fitness :

1. Cardiovascular Ability : Body's ability to take in oxygen, deliver it to cells use it at a cellular level to create energy for physical work- endurance, strength, power.
2. Muscular ability : Analysis of muscular capability endurance, strength, power.
3. Flexibility: ability of a joint to move through a specific range of motion.
4. Body Composition : Proportion of fat- free mass to fat mass.

Skill related Fitness

1. Agility
2. Balance
3. Coordination
4. Speed
5. Power
6. Reaction time

Need and importance of fitness

We all know that being physically fit is good for us, but exactly what are the needs of physical fitness? Why is physical fitness important?

Need of fitness

1. Effective work
2. Good Health
3. Face Emergencies

Importance of fitness

Fitness is important for people of all age groups.

- | | |
|----------------------------------|----------------------------|
| 1. Overall Health | 5. You'll sleep better. |
| 2. Boosts Energy | 6. Strong Build |
| 3. Weight Reduction | 7. Mental Strength |
| 4. You'll keep your bones strong | 8. Personality Development |

Affects of Physical fitness.

All unhealthy lifestyle affect fitness . . .

- | | |
|------------------------|------------------------------------|
| 1. Sedentary lifestyle | 4. Obesity |
| 2. Smoking | 5. Insufficient sleep, and |
| 3. Alcohol | 6. Non-prescribed pharmaceuticals. |

Healthy lifestyles components

- | | |
|------------------------------|-------------------------------|
| 1. Regular physical activity | 5. Practicing safe sex. |
| 2. Eating well. | 6. Learning first aid. |
| 3. Managing stress. | 7. Seeking medical advice. |
| 4. Avoiding bad habits. | 8. Protecting the environment |

Overall Benefits of Fitness

- | | |
|---|---|
| • Improves sleep | • Increases Energy |
| • Improves body composition | • Improves Athletic Performance |
| • Increases bone density | • Injury and Disease Prevention |
| • Decreases risk of injury, promotes joint stability and strength | • Increase muscle mass and bone strength. |
| • Increases BMR | • Wonderful stress reliever |
| • Increases Immunity | • Improves flexibility |
| • Improves Circulatory system health | • Increase energy levels and stamina |
| • Decreases risk of disease (cancer, type II diabetes) | • Helps regulate your appetite |
| • Assists in stress management | • Postpones the process of aging |
| • Decreases depression | • Enhances quality of life |
| • Improve self-image | • Helps you look better |
| • Lose Excess Body Fat | • Helps you sleep better |

Mental benefits

- Releases endorphins which are responsible for our psychological well being and also help in reducing pain.
- Increases brain power by increasing serotonin levels in our brains, which leads to improved mental clarity.
- Boosts self confidence, improve mood, and relieves symptoms of depression.

Fitness achievement

There are many ways to achieve fitness. For fitness one should perform following physical activities regularly.

- | | |
|---------------------------------------|------------------------------------|
| 1. Performing Yogasanas & pranayama | 4. Swimming. |
| 2. Brisk walking for at least 20 min. | 5. Cycling. |
| 3. Jogging and running. | 6. Playing various sports & games. |

Healthy lifestyles like...

1. Good food habits.
2. Avoiding drugs, alcohol, smoking, etc.
3. Daily hygiene & sanitation.

Conclusion

The benefits of physical fitness make us to live much healthier life. It helps us to deal successfully with the difficult situations arising in our day to day life. Today every one knows that life became more faster and if we want to go with that speed you should be fit physically as well as mentally.

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Current Status Of Physical Education In Selected Schools Of Bandipora District In Kashmir Valley

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Abstract:

Day by day the value of sports and games are becoming interesting. Each and every person is interested in sports either in participating in it or enjoying as a spectator. Sports activities emerged as a benevolent agent of recreation in almost every sphere of life. In present era educational institutions have seen a vibrant change from traditional system of education when sports or other extra-curricular activities were considered futile but currently sports is considered as a liberating agent to motivate the children to come into mainstream education as an integral part of education. Parents or guardians do not look at the school buildings or libraries only but they ensure themselves about the aesthetic and kinesthetic development of their children. So the research scholar wants to find out the Current status of physical education in selected schools of Bandipora district in Kashmir valley. For the study a self made questionnaire comprising of the following three sections: Infrastructure of schools, Physical education teacher, Participation of boys and girls in different games and sports has been used. The researcher uses a statistical technique, 'chi-square' for the justification of the collected data. The statistical analysis of data observed that the "Current status of physical education in selected high schools of Bandipora District is better" because the value of calculated Chi- Square is more than the tabulated Chi-square.

Keywords: - Physical education, Current status in schools.

Introduction:-

Physical education has a vital role to play as an integral part of general education which aims at enabling an individual to live in an enriched and abundant life in an every changing world. As physical education and sports help in the development of fundamental skills essential for the daily life activities of the human beings and social skills, which aid in making him a well adjusted and useful member of the society.

A highly systematic, well developed programme of physical education, sports and games is basically a product of modern historical era. Although exercise fundamentally is a large part of physical education, sports and games, a close examination of the lines of the previous societies of man reveal that exercise alone is not true representation of such activities but man has always had a propensity or natural bent for physical education, sports and games.

Misconception of Physical Education that it is limited to drills and exercises are completely rejected. New trends and methodologies like rhythmic exercises, musical modern equipments and much more are being adopted by society. Every day new and more authentic theories or exercises methodology is existing and making physical education more and more valuable for individuals and society. It is necessary to provide knowledge regarding true meaning of physical education and scope of physical education. The importance of physical education and activity was recognized by Plato when he said "Lack of activity destroys the good conditions of every human being, while movement and methodical physical exercise save it and pressure it." When human movement is combined with the universal drive of play. The combination forms one of the most powerful education media the physical education.

Methodology:-

For the present study, the source of subjects were selected from the high schools of Bandipora district. The researcher has selected 40 High school physical education teachers for the collection of data. Simple random sampling method has been used for the collection of data. The self developed questionnaire was used for the present study. The questionnaire is comprised of three sections i.e., Infrastructure of school, Physical education teacher, Participation of boys and girls in different games and sports. The questionnaire was prepared and distributed among high school physical education teachers to know the current status of physical education. After the fulfillment of questionnaire it has been collected from the respondents. Then the data has been analyzed and interpreted by using special statistical technique 'chi square'. To test the hypothesis given by the researcher the level of significance is set at 0.05 which is considered as reliable and adequate for the present study.

Interpretation Of Data:-

The interpretation of data is shown in the below tables:

Table No. 1=Calculated value of χ^2 of section-A (Infrastructure)

	Yes	No
Fo	62.5	37.5
Fe	50	50
fo-fe	12.5	-12.5
(fo-fe)²	156.25	156.25
(fo-fe)²/fe	3.12	3.12

Level of significance: 0.05

From the above table it is observed that the frequency observed for yes is 62.5 and for No is 37.5. Near about 62.5% teachers are of opinion with the principle that the infrastructure of the school is good and 37.5% are agreeing with the principle that the infrastructure of the school is not good after that the researcher uses a statistical technique ‘chi-square’ for the justification of the collected data.

The χ^2 for above given statement is 6.25. The table value of χ^2 at 1 degree of freedom and 0.05 level of significance is 3.84. Because the obtained χ^2 is greater than the table value of χ^2 , it is concluded that the infrastructure of the school is significant.

Table No. 2=Calculated value of χ^2 of section-B (Physical Education Teachers)

	Yes	No
Fo	80	20
Fe	50	50
fo-fe	30	-30
(fo-fe)²	900	900
(fo-fe)²/fe	18	18

From the above table it is observed that the frequency observed for yes is 80% and for No is 20%. Near about 80% teachers are of opinion with the principle that the physical education teachers are satisfied with their jobs and other aids provided to them is good and 20% are not satisfied with their jobs after that the researcher uses a statistical technique ‘chi-square’ for the justification of the collected data.

The χ^2 for above given statement is 36. The table value of χ^2 at 1 degree of freedom and 0.05 level of significance is 3.84. Because the obtained χ^2 is greater than the table value of χ^2 , it is concluded that the physical education teachers are satisfied and working for the upliftment of the school.

Table No. 3=Calculated value of χ^2 of section-C Participation of Boys and Girls in sports events.

	Yes	No
Fo	66.5	33.5
Fe	50	50
fo-fe	16.5	-16.5
(fo-fe)²	272.25	272.25
(fo-fe)²/fe	5.44	5.44

From the above table it is observed that the frequency observed for yes is 66.5 and for No is 33.5. Near about 66.5% teachers are of opinion with the principle that the participation of boys and girls of the school is good and 33.5% are agree with the principle that the participation of boys and girls of the school is not good after that the researcher uses a statistical technique ‘chi-square’ for the justification of the collected data.

The χ^2 for above given statement is 10.88. The table value of χ^2 at 1 degree of freedom and 0.05 level of significance is 3.84. Because the obtained χ^2 is greater than the table value of χ^2 , it is concluded that the participation of boys and girls of the school is significant.

TABLE NO: - 4=Calculated value of χ^2 of all sections (Section A, B & C)

	Yes	No
Fo	62.4	37.6
Fe	50	50
fo-fe	12.4	-12.4
(fo-fe)²	153.76	153.76
(fo-fe)²/fe	3.07	3.07

From the above table it is observed that the frequency observed for yes is 62.4 and No is 37.6. Near about 62.4% teachers are of opinion with the principle that the current status of the school are good and 37.6% are agree with the principle that the current status of the school are not good. After that the researcher uses a statistical technique 'chi-square' for the justification of the collected data.

The χ^2 for above given statement is 6.14. The table value of χ^2 at 1 degree of freedom and 0.05 level of significance is 3.84. Because the obtained χ^2 is greater than the table value of χ^2 , it is concluded that the current status of the school is significant. Hence the hypothesis of the researcher which was given by the researcher is accepted.

Result And Conclusion: -

For the present study the data is collected from different high school physical education teachers of Bandipora District through self developed questionnaire which is comprised of the following three sections, Infrastructure of school, Physical education teacher, Participation of boys and girls in different sports activities. In the first section 62.5% are of the opinion that the current status of infrastructure is good and 37.5% are of the opinion that it is not good. In the second section 80% of the subjects satisfied with their jobs and other alliances 20% teacher are not satisfied with their job. The last section views about participation of boys and girls in different games and sports are of the opinion that 66.5% participate and 33.5% does not participate in different games and sports. The calculated χ^2 value is significantly better than table value at 0.05 level which shows that the current status of physical education in selected high schools of Bandipora District is better than the expected value.

The study has shown that there is an increasing taste towards the introduction of games and sports into educational system to the larger extant and guardians of the said district are showing better interest in motivating their children to participate in different games and sports.

Moreover, it has also been observed that games and sports activities have strengthened the bond among various ethnic groups and more surprisingly it has played a vital role in preventing various school and college going students from indulging in various social evils such as casteism drugs and other anti social behavior.

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Six Daily Habits Can Help You To Lose Body Weight

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Abstract

A healthy society is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The enjoyment of highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, political belief, economic or social condition. Game of life which everybody is playing from dawn to dusk with sporting spirit is strengthening harmony of society. Participation in sports ensures not only good health but also fresh mind, freeness, freedom. Sports are a good combination of recreation and exercise. They improve your physical and psychological health; physical because sports involve exercise and psychological because playing is something you enjoy, it's something that relaxes your mind. Most individuals think about losing or managing their weight on a daily basis. Weight loss or management can be a challenging task. For people losing weight, frustration can kick in when weeks of dieting and exercising aren't reflected on the scale. For individuals trying to manage their weight, knowing the causes of weight gain can help to achieve weight maintenance. Daily habits can impact our weight in a big way.

Introduction:

Health, as defined by the World Health Organization (WHO), is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The meaning of health has evolved over time. In keeping with the biomedical perspective, early definitions of health focused on the theme of the body's ability to function; health was seen as a state of normal function that could be disrupted from time to time by disease. An example of such a definition of health is: "a state characterized by anatomic, physiologic, and psychological integrity; ability to perform personally valued family, work, and community roles; ability to deal with physical, biological, psychological, and social stress". Then in 1948, in a radical departure from previous definitions, the World Health Organization (WHO) proposed a definition that aimed higher: linking health to well-being, in terms of "physical, mental, and social well-being, and not merely the absence of disease and infirmity". Although this definition was welcomed by some as being innovative, it was also criticized as being vague, excessively broad and was not construed as measurable. For a long time, it was set aside as an impractical ideal and most discussions of health returned to the practicality of the biomedical model. The World Health Organization describes mental health as a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community". Mental Health is not just the absence of mental illness. Mental illness is described as 'the spectrum of cognitive, emotional, and behavioral conditions that interfere with social and emotional well-being and the lives and productivity of people. Having a mental illness can seriously impair, temporarily or permanently, the mental functioning of a person. Other terms include: 'mental health problem', 'illness', 'disorder', 'dysfunction'

1. Soak up the sun:

Getting sunlight in the morning shortly after waking up can contribute to a lower BMI (Body Mass Index,) Ideally, to maximize sunlight benefits, you can go outside for a quick walk or jog, but even the simple act of opening your blinds can help you feel the positive effects of the sun. The study showed that only 20-30 minutes of morning sunlight could lead to a lower BMI.

2. Weight yourself regularly:

As much as we all hate weighing ourselves, weighing daily in the morning can encourage weight loss and prevent gradual weight gain over time. We know that women gained more weight when they waited longer between weigh-ins. Daily weigh-ins help keep track of progress. They can also help determine what dieting and exercise methods are giving you the best results. It is important to keep in mind that small weight fluctuation between days is completely normal. Daily weigh-ins reflect long-term trends rather than day-to-day progress.

3. Breakfast Really Is the Most Important Meal of the Day

Skipping breakfast can lead to gradual weight gain over time. Eating breakfast can help to curb mid-morning cravings for snacks or even more caffeine. A well-balanced breakfast should consist of protein and fiber. Nutrition scientists, says that your breakfast sets "the tone for the rest of the day." Eating the right breakfast can also improve concentration and help boost energy levels.

4. Listen To Your Mom and Make Your Bed:

Making your bed can actually improve your quality of sleep, according to a survey. Individuals who made their bed daily were 19% more likely to get a better night's sleep than individuals who did not. A lack of quality sleep can lead to an increase of cravings, resulting in more snacking throughout the day. Making your bed can also be a sign of willpower says Charles Duhigg, author of *The Power of Habit*. People with better willpower are more likely to stick to a diet and exercise regime.

5. Balance Your Coffee and Water

Nutrition scientists argues drinking coffee in the morning can give you the caffeine kick needed to wake up, but drinking a glass of water is just as important in fueling your morning. You can speed up your metabolism and flush toxins from your body. Drinking water in the morning can also help break down nutrients extracted overnight.

6. Stop Snoozing

As tempting as it may be, hitting the snooze button can sabotage even the best of diets and workout routines. Nutrition Scientists says that oversleeping may cause weight gain and be as detrimental to the body as lack of sleep. Oversleeping makes it difficult for the body to sync its blood sugar with the true time of day, which can cause cravings. These cravings lead to increased snacking and weight gain.

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Sports Is The Best Stress Reliever And Reducer Of Obesity

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Nowadays people have to work and study more than in the past. Most of the time we sit in the office or school. A lot of people feel stressed because their bodies do not get enough motion. Different people have different ways to reduce stress, but for me the most effective is playing sport. Stress is an inevitable part of life. Seven out of ten adults in the India say they experience stress or anxiety daily, and most say it interferes at least moderately with their lives, according to the most recent. The first ever nationwide survey on mental health covering 28 states in 2015- 2016 gives us a better idea about the prevalence of anxiety disorders in India. The National Mental Health Survey conducted by the National Institute of Mental Health and Neuro Sciences (NIMHANS) in 2015 -2016, indicates that the total prevalence of anxiety disorders in India amount to 3.1 percent of the population.

First of all, playing sport is good for health. By playing sport, we feel more relaxed. Sport exercise allows us to meet people, for example at gym. In my opinion, relationships with other area very useful method to fight stress. Physical activity of N type stimulates our body to produce and endorphins, known as “feel-good” hormone, which decrease pain and help relieve symptoms of stress, depression and Anxiety. Moreover, sports and regular exercise improve not only physical, but also mental abilities because stress is a mental factor. Engaging in sport can help increase feelings of its self-esteem and self-confidence, which can be a powerful mechanism for stress relief. Playing sports help to take our mind off of whatever is troubling us. We can try to forget it by doing something active: dancing, Jogi are bicycling. Also we can take our anger out in the game like hitting a ball or playing with more energy and aggressiveness. Secondly, exercise increases physiological control.

Exercising Body and Mind

The physical benefits of exercise—improving physical condition and fighting disease—have long been established, and physicians always encourage staying physically active. Exercise is also considered vital for maintaining mental fitness, and it can reduce stress. Studies show that it is very effective at reducing fatigue, improving alertness and concentration, and at enhancing overall cognitive function. This can be especially helpful when stress has depleted your energy or ability to concentrate.

When stress affects the brain, with its many nerve connections, the rest of the body feels the impact as well. So, it stands to reason that if your body feels better, so does your mind. Exercise and other physical activity produce endorphins—chemicals in the brain that act as natural painkillers—and also improve the ability to sleep, which in turn reduces stress. Meditation, acupuncture, massage therapy, even breathing deeply can cause your body to produce endorphins. And conventional wisdom holds that a workout of low to moderate intensity makes you feel energized and healthy.

Scientists have found that regular participation in aerobic exercise has been shown to decrease overall levels of tension, elevate and stabilize mood, improve sleep, and improve self-esteem. Even five minutes of aerobic exercise can stimulate anti-anxiety effects.

Exercise training and sports lead to repetitive increases in shear stress on the endothelium and can thereby stimulate the eNOS enzyme to produce more NO. Endothelial dysfunction is rare among active people and occurs later in life as compared to inactive individuals. In the last years we found that patients with stable coronary artery disease often have severe endothelial dysfunction, which can be dramatically improved by a four week training program – to an extent which is comparable with the effects of established medications such as lipid-lowering drugs (i.e. statins). This improvement of vessel dilation increases blood flow to the myocardium and thereby reduces clinical symptoms. In addition, endothelial dysfunction is regarded as the initial step toward atherosclerosis and plaque formation. By treating endothelial dysfunction with regular exercise training we can therefore retard the development of new coronary stenoses.

By following a regular exercise program, we can gain control over the body. Fit individuals who exercise regularly appeared more relaxed and less anxious and depressed. Exercising on a regular basis increases emotional well-being. Active individuals report less stress in their lives. On the other

hand, doing to my sport is bad for the body because it could get tired. Some people spend too much time in the gym, because they want to have a perfect, and sometimes they pay their life for it. Nevertheless, there are lot of interest in active things, which can do part from support. For example playing the instrument, dancing or singing. Personally I very enjoyed playing sport. Be active is important to me.

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Roles, Self-Concept And The Stress Of Athletic Competition By Woman.

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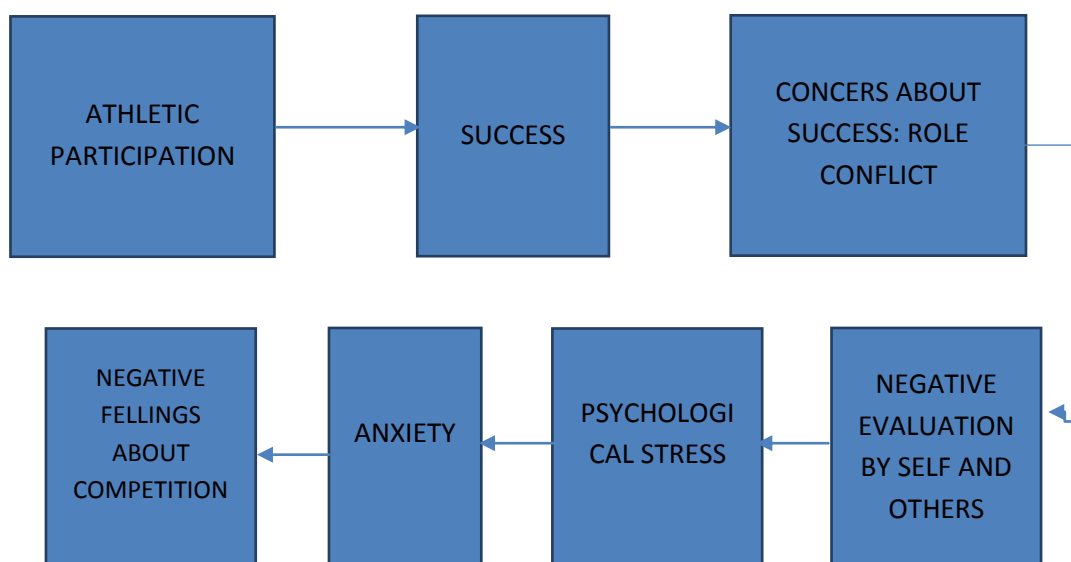
Role theorists tell us, among other things, that stress may occur when an individual must bridge too many roles or must change frequently from roles highly diverse in nature. Moreover, it has been apparent for centuries the negative social evaluations produce psychological stress in individuals who are the recipients. A combination of factors, including negative social appraisal, may cause a lowering of individuals' feeling about himself or herself, which in turn extracts a psychic "cost" from an individual.

These variables and the forces have been believed by many to be operating within the purview of the woman athlete. Society's prescribed dependent sex-role of women conflicts with the aggressive behaviors that must sometimes be evidenced in sport, while expectations of friends and lovers may often be at odds with the manner in which the woman athlete sees herself while participating and may differ from the expectations for her performance held by coaches and teammates.

Interacting with the stresses exerted by a role conflict and by important others is the manner in which people view different sports. Traditionally sports found at the country club (tennis, golf, swimming) as well as athletic endeavors emphasizing beauty off-line (gymnastics) were believed acceptable for female participation, whereas those emphasizing my level of contact (ice hockey, rugby, football) as well as certain forms of unaesthetic indirect power (shot putting, basketball, baseball) were deemed not as appropriate for participation by "ladies".

More than one study has uncovered the indication that many female hold little restrictive feelings about themselves and physical activity. Duda and Roberts (1979) reported that their female and male subjects believed that it was more difficult for males to win in handball than for females to excel at figure skating. Corbin and Nix (1979) also found that both boys and girls believed a task required strength, speed and power was a male activity, whereas those requiring skill (ping-pong and balance game) were "female".

Thus, a number of conditions being studied by behavioral scientists, and including sociologists and social psychologists, are represent possible source of stress in woman athletes. The following show some components of behavioral events chain



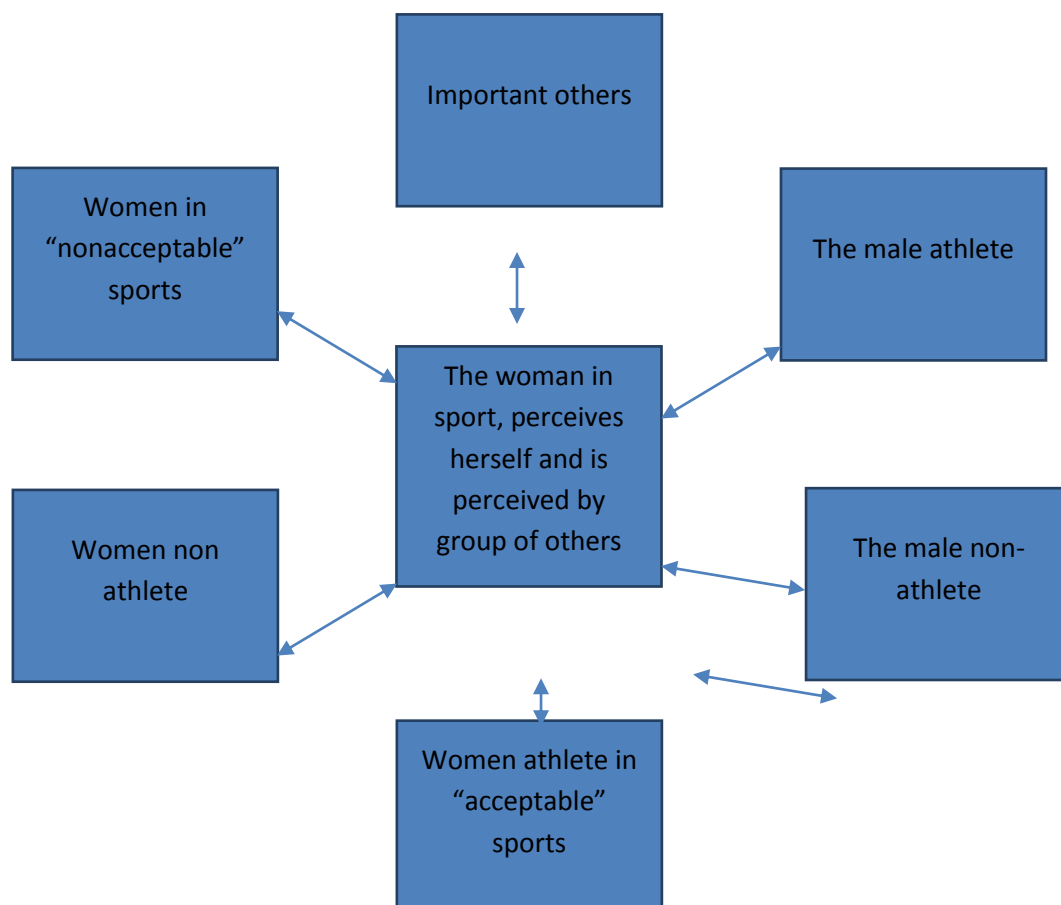
Just as the athlete name you herself negatively or positively, various components of her "self" and her performance may just negatively or positively by others - family, important others as (husband and coach). These components of her "self" met you I rather comprehensive look at her action and behavior in sport, and more specifically, how she appears to other in specific sports - just by others to represent masculine or feminine qualities. Further complicating and enlarging the number

of interactions possible, as the “self” is evaluated at the level of competition at which the female maybe performing, the success she may or may not be enjoying, and the period of time she may have been participating in the give sport.

The amount of psychic stress or female athlete may be experiencing as the result of a sports participation depends on how far she has “penetrated into the into her sports”, as well as how acceptable the specific type of sports participation is within the value system of subculture with whom she may close the identify or whose opinions are important to her. The presence of positive orders within the sport are also influential.

The above diagram presence as the most test will likely be experienced by younger girl just entering a sport for which there are there are few cultural sanctions and in which female participation is relatively new to the culture. Indeed, many girls mentally rehearse what reactions other might had to their entry into this type of high stress situation and may decline to participate as the result of this imaginal social rehearsal.

Secondary level of stress maybe encounter, as indicated on the diagram, if girl participates in the masculine sport which has enjoyed some status and popularity with within her subculture, such as university softball team that has been around for a period of years. Relatively little stress, or indeed an enhancement of the “self”, is likely to take place if the girl finds herself within a high-status feminine sport, long engrained in the subculture. The girl entering in high-status gymnastic program that has existed for a long time within the community would provide such an example.



The above diagram explains that the woman in sport, perceives herself and is perceived by a group of others. It also explains that what are the factors can derail the success rate of woman participation in high intensity sport can be influenced by the male dominant sports and also the non-athlete women help to mislead the orientation of a specific sport and help to pull them down as a non-athletic environment and not acceptable sports for women feel more inferior to the male. In some male dominant sports the male athlete used to dominate mostly but as women participation has been increased the male athlete feels like an infringement to their sports area which is the common reason

for the woman to participate in the male dominant sports which is also factor of stress to the woman athlete.

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Benefits of Physical Activity in Schools

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Introduction

Most classrooms have at least one impulsive child and in my experience, some classes have more than one. These impulsive children are frequently in trouble and display sincere regret for their actions... repeatedly. When teaching, I wondered, "Will they ever learn?"

A new study suggests that a simple solution for the impulsive child is physical activity. Published in the Obesity Reviews, researchers identified that the brain controls inhibitory control which regulates impulsive behavior. The research also found a link between neurocognitive functions relating to eating behaviors and exercise. In other words, physical activity in school has a positive influence on impulsive eating and actions.

In light of these findings, physical activity has two benefits schools should be interested in childhood obesity intervention, as well as, a calming effect on impulsive children.

We know that exercise helps with executive functions like sequencing, memory, and prioritizing which contribute to necessary skills for success in school and life. Put simply, physical activity in school primes the brain for learning.

Another familiar refrain from some students is "why try? I already know I can't do it." The defeatist attitude or inability to push past previous failures is prevalent in far too many students.

Physical activity in school is a remedy for that too. Physical activity produces endorphins (chemicals in the brain) that regulate mood, pleasure, and pain. An elevated mood can contribute to an "I can do it" attitude which goes a long way as students approach new tasks as challenges, not obstacles.

Academics and Physical Activity in Schools

Physical activity has academic benefits as well. The California Department of Education looked at students' health fitness scores on the FITNESSGRAM and compared them to the student scores on standardized testing in math and language arts. They found that fit kids "scored twice as well on academic tests as those that were unfit." The second year the CDE controlled for upper and lower income brackets and while upper-income fit students scored higher than lower income students overall, the premise still held true. Students who were more fit performed better academically.

Healthy Child Development and Physical Activity in Schools

A new force of advocates has emerged in defense of plain old "play" supported by a growing body of evidence that play (ie. physical activity) has a positive effect on children's overall health. The American Academy of Pediatrics published a Clinical Report in 2006 on the topic of play. The report offers guidelines on how pediatricians can advocate for play to ensure that play is a part of the optimal development for young children. The report points out that our hurried lifestyles, emphasis on academics, and changes in family structure have resulted in a reduction in child-centered play and recess. The report reminds us that "play" plays an essential role in physical, social, academic and emotional development in young children.

Physical Education & Physical Activity in Schools

School physical education programs offer students the opportunity to not only be physically active today but the opportunity to teach skills and behaviors conducive to maintaining physical activity for a lifetime.

Students spend over half of their day in school. Physical education should teach them how to integrate physical activity into their day both now and later in life. If not now, when? What kind of message are we sending as a society when we can't find the time for physical education class or offer it as an elective?

Recess and Physical Activity in Schools

Recess and physical education are sometimes confused. When schools recently eliminated recess, parents were told that students didn't need recess because they were receiving physical education; however, many parents fought back.

Eliminating recess is facing opposition from parents, play advocates and, not surprising, children. It appears that the tide is turning and both PE and recess are viewed as essential experiences in well-rounded education .

Recess, unlike physical education, represents one of the few unstructured experiences of schooling. It affords children the opportunity to “play”, use their outside voices, run and chase. Some children even garner enough courage to approach a new friend, rebuff a rival or irritate an enemy in an animated game of tag. Notice that each is a physically active experience. Research indicates that children are more active at recess than outside at home or even in physical education. In addition to the mental pause, recess appears to be the most effective way to keep kids active.

A study by the Robert Wood Johnson Foundation found that 42% of the nation’s school children “get most of their total daily exercise at recess – more than doing so in P.E. or after-school programs.”

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Sports as Physical Activity

Elementary students who play sports are more likely to become active teens who, in turn, are more likely to be active adults. And being active, according to the World Health Organization, is one of the most important ways to prevent heart disease, stroke, diabetes and a range of other debilitating ailments.

Not only do healthy people enjoy a higher quality of life, but the economy benefits from costs savings and productivity gains associated with workplace wellness. School sports and intramurals also have an important role in keeping children active at school.

Schools Play a Unique Role in Physical Activity Opportunities

Schools represent an advantageous opportunity to promote physical activity in children. Literally, they have a “captured audience.” The ability to carve out time for physical activity whether

it recesses, physical education or sports is unique to schools alone. Since nearly 50 million students attend school is there a better place to begin to engage children in daily physical activity?

One of the best reasons for adding physical activity to children's daily routine was documented by the America Heart Association...

"Effective efforts made now will help children avoid a lifetime of chronic disease and disability."

Play, physical activity, physical education, recess, and sports are cherished parts of childhood. The benefits of each are at the forefront of scientific literature over the last decade. No longer can an informed parent, educator or doctor ignore the importance of each in contributing to healthy child development.

Biomechanics a Performance Enhancement Technique.

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Introduction

Biomechanics in Sport incorporates detailed analysis of sport movements in order to minimise the risk of injury and improve sports performance. Sport and Exercise Biomechanics encompasses the area of science concerned with the analysis of the mechanics of human movement. It refers to the description, detailed analysis and assessment of human movement during sport activities. Mechanics is a branch of physics that is concerned with the description of motion/movement and how forces create motion/movement. In other words, sport biomechanics is the science of explaining how and why the human body moves in the way that it does. In sport and exercise that definition is often extended to also consider the interaction between the performer and their equipment and environment. Biomechanics is traditionally divided into the areas of kinematics which is a branch of mechanics that deals with the geometry of the motion of objects, including displacement, velocity, and acceleration, without taking into account the forces that produce the motion while kinetics is the study of the relationships between the force system acting on a body and the changes it produces in body motion. In terms of this there are skeletal, muscular and neurological considerations we also need to consider when describing biomechanics.

Application

According to Knudson (2007) human movement performance can be enhanced in many ways as effective movement encompasses anatomical factors, neuromuscular skills, physiological capacities and psychological/cognitive abilities. Biomechanics is essentially the science of movement technique and as such tends to be most utilised in sports where technique is a dominant factor rather than physical structure or physiological capacities. The following are of the areas where Biomechanics is applied to either support performance of athletes or solve issues in sport or exercise:

- The identification of optimal technique for enhancing sports performance
- The analysis of body loading to determine the safest method for performing a particular sport or exercise task
- The assessment of muscular recruitment and loading
- The analysis of sport and exercise equipment e.g., shoes, surfaces and racquets.

Biomechanics is utilised to attempt to either enhance performance or reduce the injury risk in the sport and exercise tasks examined.

Principles

It is important to know several biomechanical terms and principles when examining the role of biomechanics in sport and exercise.

Forces and Torques

A force is simply a push or pull and it changes the motion of a body segment or the racket. Motion is created and modified by the actions of forces (mostly muscle forces, but also by external forces from the environment). When Force rotates a body segment or the racket, this effect is called a torque or moment of force. *Example* - Muscles create a torque to rotate the body segments in all tennis strokes. In the service action, internal rotation of the upper arm, so important to the power of the serve, is the result of an internal rotation torque at the shoulder joint caused by muscle actions (latissimus dorsi and parts of the pectoralis major and deltoid). To rotate a segment with more power a player would generally apply more muscle force.

Newton's Laws of Motion

Newton's Three Laws of Motion explain how forces create motion in sport. These laws are usually referred to as the Laws of Inertia, Acceleration, and Reaction.

1. **Law of Inertia** - Newton's First Law of inertia states that objects tend to resist changes in their state of motion. An object in motion will tend to stay in motion and an object at rest will tend to stay at rest unless acted upon by a force. *Example* - The body of a player

quickly sprinting down the field will tend to want to retain that motion unless muscular forces can overcome this inertia.

2. **Law of Acceleration** - Newton's Second Law precisely explains how much motion a force creates. The acceleration (tendency of an object to change speed or direction) an object experiences is proportional to the size of the force and inversely proportional to the object's mass ($F = ma$). *Example* - If a player improves leg strength through training while maintaining the same body mass, they will have an increased ability to accelerate the body using the legs, resulting in better agility and speed. This also relates to the ability to rotate segments, as mentioned above.
3. **Law of Reaction** - The Third Law states that for every action (force) there is an equal and opposite reaction force. This means that forces do not act alone, but occur in equal and opposite pairs between interacting bodies. *Example* - The force created by the legs "pushing" against the ground results in ground reaction forces in which the ground "pushes back" and allows the player to move across the court (As the Earth is much more massive than the player, the player accelerates and moves rapidly, while the Earth does not really accelerate or move at all). This action-reaction also occurs at impact with the ball as the force applied to the ball is matched with an equal and opposite force applied to the racket/body

Momentum

Newton's Second Law is also related to the variable momentum, which is the product of an object's velocity and mass. Momentum is essentially the quantity of motion an object possesses. Momentum can be transferred from one object to another. There are different types of momentum which each have a different impact on the sport.

- **Linear Momentum**, which is momentum in a straight line. *Example* - Linear momentum is created as the athlete sprints in a straight line down the 100m straight on the track.
- **Angular Momentum**, which is rotational momentum and is created by the rotations of the various body segments e.g. The open stance forehand uses significant angular momentum. The tremendous increase in the use of angular momentum in groundstrokes and serves has had a significant impact on the game of tennis. One of the main reasons for the increase in power of the game today is the incorporation of angular momentum into groundstroke and serve techniques. In tennis, the angular momentum developed by the coordinated action of body segments transfers to the linear momentum of the racket at impact

Centre of Gravity

The Centre of Gravity (COG) is an imaginary point around which body weight is evenly distributed the centre of gravity of the human body can change considerably because the segments of the body can move their masses with joint rotations. This concept is critical to understanding balance and stability and how gravity affects sport techniques.

The direction of the force of gravity through the body is downward, towards the centre of the earth and through the COG. This line of gravity is important to understand and visualise when determining a person's ability to successfully maintain Balance. When the line of gravity falls outside the Base of Support (BOS), then a reaction is needed in order to stay balanced.

The center of gravity of a squash racket is a far simpler process and can usually be found by identifying the point where the racket balances on your finger or another narrow object.

Balance

Balance is the ability of a player to control their equilibrium or stability. You need to have a good understanding of both static and dynamic balance:

- **Static Balance** - The ability to control the body while the body is stationary. It is the ability to maintain the body in some fixed posture. Static balance is the ability to maintain postural stability and orientation with centre of mass over the base of support and body at rest.
- **Dynamic Balance** - The ability to control the body during motion. Defining dynamic postural stability is more challenging, Dynamic balance is the ability to transfer the vertical projection of the centre of gravity around the supporting base of support. Dynamic balance is the ability to maintain postural stability and orientation with centre of mass over the base of support while the body parts are in motion.

Lower Limb Biomechanics

As human's ambulation is our main form of movement, that is we walk upright and are very reliant on our legs to move us about. How the foot strikes the ground and the knock on effect this has up the lower limbs to the knee, hips, pelvis and low back in particular has become a subject of much debate and controversy in recent years.

Lower limb biomechanics refers to a complex interplay between the joints, muscles and nervous system which results in a certain patterning of movement, often referred to as 'alignment'. Much of the debate centres around what is considered 'normal' and what is considered 'abnormal' in biomechanical terms as well as the extent to which we should intervene should abnormal findings be found on assessment. This section examines the biomechanics of the lower extremity in particular the anatomy and biomechanics of the foot and ankle, the impact of Q Angle on the mechanics of the Hip and Knee and finally the implications of this on gait.

Biomechanics of Gait

Sandra J. Shultz describes gait as: "...someone's manner of ambulation or locomotion, involves the total body. Gait speed determines the contribution of each body segment. Normal walking speed primarily involves the lower extremities, with the arms and trunk providing stability and balance. The faster the speed, the more the body depends on the upper extremities and trunk for propulsion as well as balance and stability. The legs continue to do the most work as the joints produce greater ranges of motion through greater muscle responses. In the bipedal system, the three major joints of the lower body and pelvis work with each other as muscles and momentum move the body forward. The degree to which the body's centre of gravity moves during forward translation defines efficiency. The body's centre moves both side to side and up and down during gait." Bipedal walking is an important characteristic of humans. This page will present information about the different phases of the gait cycle and important functions of the foot while walking

Sport Specific Biomechanics

Running Biomechanics

Running is similar to walking in terms of locomotor activity. However, there are key differences. Having the ability to walk does not mean that the individual has the ability to run. There are some differences between the gait and run cycle - the gait cycle is one third longer in time, the ground reaction force is smaller in the gait cycle (so the load is lower), and the velocity is much higher. In running, there is also just one stance phase while in stepping there are two. Shock absorption is also much larger in comparison to walking. This explains why runners have more overload injuries.

Running Requires:

- Greater Balance
- Greater Muscle Strength
- Greater Joint Range of Movement

Cycling Biomechanics

Cycling was initially invented by Baron Carl von Drais in 1817, but not as we know it. This was a machine which initially had two wheels that were connected by a wooden plank with a rudder device for steering. It involved people running along the ground whilst sitting down; giving them the name of a 'running machine' (in all senses) or a velociped. This was solely used by the male population at the time of invention. The velociped then made a huge design development in the 1860's at the Michaux factory in Paris. They added lever arms to the front wheel which were propelled by pedals at the feet. This was the first conventional bicycle, and since then and up until the current day the bicycle has made great design and technological advances ^[15]. A survey in 2014 estimated that over 43% of the United Kingdom population have or have access to a bike and 8% of the population aged 5 and above cycled 3 or more times a week. With such a large amount of people cycling, whether it be professional, recreational or for commuting this increases the chance of developing an injury, so it is time we understood the biomechanics of cycling.

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A Study on Muscular Analysis of Motor Movements

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The anatomical analysis of the movement should include an examination of skeletal joint action, an account of muscle participation, and identification of neurological mechanism involved. It should attempt to give specific answer to these questions

1. Which joints are involved and what are their exact movements in the motor skill?
2. Are any of the joints used to the limit of their range of motion?
3. Which muscles are responsible for the joint taxes, and what is the nature of their contraction?
4. Do any of the muscle group exert maximal near maximal effort?
5. Which neuromuscular mechanisms are likely to help or hinder the action, and what is the nature of their involvement?
6. Which anatomical principles contribute to the maximal efficiency and accuracy in the performance of the motor skill?
7. Which principles are directly related to the avoidance of injury?

To facilitate answering these questions the technique being analysed should be divided into units or faces. Each phase is treated as a separate movement and should have logical beginning and ending in terms of the muscle and joint moment the golf drive, for instance, might have four phase, downswing is forced face ending with the ball contact, and the follow through. The phase of walking, a repetitive or cyclical movement, are often separated into swing and support phases, with the support face subdivided into the restraining and propulsive phase. The standing Long jump was divided into the preparatory phase, unsupported face, landing and recovery phase.

Skeletal Joint

For each phase of the technique and for each joint participating in the phase, the precise joint action should be identified and recorded as was done for the same analysis of the force phase of standing long jump. If it seems desirable to measure the range of motion of the joint actually, they can be measured directly using elgons or indirectly on sequential motionpictures of the technique.

Muscle Participation

The muscular action is identified for joint movement and recorded next to the joint actions. This implies identify not only the muscles that are contracting, but also the precise functions in the movement, the kind of contraction they are undergoing (concentric, eccentric are static) and an estimate of the force of their contraction (strong, medium, mild). The method of identification of the muscle participation can vary from the **relatively simple** but least reliable to more complex Laboratory procedures. The technique that requires no equipmentrelies on subjective judgement of the actions of a muscle based on the muscle's attachments, together with the relation to the joint in question. This method must be used with caution, however, as it's validity is questionable. To make it worthwhile, as your muscular actions should be verified whenever possible by referring to related EMG research reports.

There is one experimental technique that is available to everyone. This is palpitation and inspection of superficial muscles. In spite of the limitations of this method and its objective nature it is recommended for students as it is a valuable learning experience. Student should be cautious however, about a blind their findings to sports skills which in most cases are performed under circumstances that differ widely from those under which basic movements are executed.

The most reliable laboratory method of investigating muscular action and present use is electromyography. Evidence of muscle participation and related quantification of that participation is possible with this methodology.

CHART FOR ANATOMICAL ANALYSIS OF A MOTOR SKILL

Name of Joint	Starting Position	Observed Joint Action	Force for Movement	Main Muscle Group Active	Contraction Type	Force of Contraction
Metatarsal phalangeal	Extended	Hyper Extension	Muscle	Extensors/flexors	Concentric	Strong
Ankle	Dorsiflexion	Planter Flexion	Muscle	Planter flexors	Concentric	Strong
Knee	Flexed	Extension	Muscle	Extensors	Concentric	Strong
Hip	Flexed	Extension	Muscle	Extensors	Concentric	Strong
Pelvis	Decreased tilt	Increased tilt	Muscle	Spinal Extensors	Concentric	Moderate
Lumbar Spine	Flexion	Extension	Muscle	Spinal Extensors	Concentric	Moderate
Thoracic spine	Slight flexion	Extension	Muscle	Spinal Extensors	Concentric	Moderate
Cervical spine	Hyper extended	Flexion	Gravity	Spinal Extensors	Eccentric	Mild
Shoulder girdle	Upward tilt	Upward rotation	Muscle	Upward Rotation	Eccentric	Moderate
Shoulder joint	Hyper extension	Flexion	Muscle	Flexors	Concentric	Strong
Elbow	Extended	-	Muscle	Extensors	Static	Mild
Radioulnar	Pronated	-	Muscle	-	-	-
Wrist	Extended	-	Muscle	Extensors	Static	Mild
Phalanges	Extended	-	Muscle	Extensors	Static	Mild

The recording of isokinetic contraction is another technique for making precise evaluations of muscular and joint performance. It requires the use of an electromechanical device designed specifically for this purpose this method is discussed.

Explain the role of neurotransmitters

Chemicals used for communication between a neuron at the synapse and another cell

- Acetylcholine is the primary neurotransmitter for the motor neurones that innervate skeletal muscle and for most parasympathetic neurones
- It's generally an excitatory neurotransmitter but it can have inhibitory effects at some parasympathetic nerve endings, such as the heart.

Slow twitch Muscle Fibre

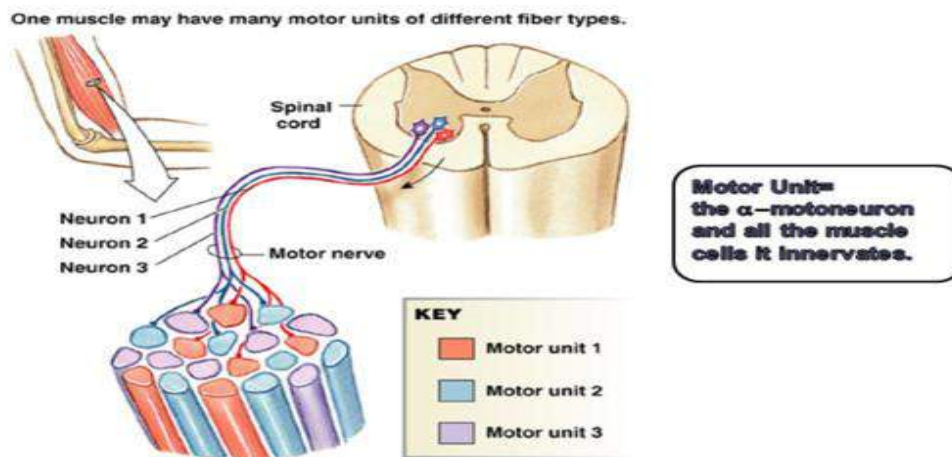
Take longer to contract

- Give long sustained muscle contractions
- Not as powerful/intense
- Have a good oxygen supply
- Suited to activities which require long term energy
- More mitochondria, store oxygen in myoglobin, rely on aerobic metabolism, have greater capillary to volume ratio and are associated with endurance.

Fast twitch Muscle Fibre

Contract quickly

- Give sharp, powerful muscle contractions
- Don't use oxygen
- Suited to activities with bursts of strength and power
- Tire quickly
- Have fewer mitochondria, are capable of more powerful (but shorter) contractions, metabolise ATP more quickly, have lower capillary to volume ratio, more likely to accumulate lactic acid



Movement Pattern

- Movement patterns in the frontal (coronal) plane: Abduction means to take away and so is characterised by movement away from the midline – for example, a cartwheel in gymnastics.
- Adduction means to bring together and so is characterised by movement towards the midline – for example, bringing the lower legs back together from the inverted cartwheel.
- Lateral flexion is sideways bending.
- Eversion is the joint action at the ankle characterised by the turning of the sole of the foot laterally outwards – for example, the kick action in breaststroke.
- Inversion is the joint action at the ankle characterised by the turning of the sole of the foot medially inwards – for example, a football player inverts the foot to pass the ball with the outside of his / her boot.
- Depression describes movement of the shoulders downwards – for example, the preparation for a dead lift, gripping the bar.
- Elevation describes movement of the shoulders upwards – for example, a shoulder shrug.
- Movement patterns in the transverse (horizontal) plane: Horizontal abduction and adduction Start off with your arm stretched out in front of you parallel to the ground, whilst your shoulder is flexed. Now move your arm away and to the side of the body. This is called horizontal abduction (also known as horizontal extension). If you return back to your starting position you will have performed horizontal adduction (also known as horizontal flexion). A discus thrower during the preparatory swing (horizontal abduction) and release of a discus (horizontal adduction) performs these movement patterns.
- Pronation is characterised by the rotation of the forearm medially so that the hand faces downwards – for example, a top-spin forehand in tennis.
- Supination is characterised by the rotation of the forearm laterally so that the hand faces upwards – for example, the right-hand action in a hockey flick. Rotation is the turning of a structure around its long axis.
- Rotation can be inwards, hence medial rotation of the humerus with the forearm flexed brings the hand towards the body – for example, in the breaststroke the humerus rotates medially as the hands enter the water. Rotation can be outwards, hence lateral rotation of the humerus describes a movement whereby the hand moves away from the body – for example, the humerus rotates laterally in preparation for the forehand stroke in tennis.

Need of Physical education in New India

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Introduction

Now that being the part of total education process physical education and sports have great impact on the physical as well as mental development of children. Many contemplate that physical education is less significant field in whole curriculum but it is as important as other subjects such as science and math. Curriculum is supposed to be designed in such a way that physical activities become a part of daily lesson plan. Sports are among the highlights of media these days and it is turning to be a big industry in the world. In spite of being ignored by majority of people in society, sports have noteworthy influence on most of them, directly or indirectly. Lots of issues which adversely affect the sports need to be settled. Cooperation with the advanced countries is required in this regard because we are not up to mark in sports field so far. We must set up an agenda of action plan for the encouragement and expansion of physical education and sport.

Latest scenario of sports and physical education in society.

The matter of concern is the declining status of physical education and sports. It is a key challenge for world's developing countries to set up a connection with other developed nations to get guidance from their coaches and authorities. Consequently, developing countries can gain knowledge about the world-class infrastructure and technological equipments related to sports. Physical education in the educational institutes is the area to be targeted for the up liftment of sports. Cricket which turns to be a religion in India is media-friendly game and raises the monetary status of players. Cricket needs not to be disregarded but other games should be given attention. The brief finding of world summit of physical education and sports at Magglingen are as below:

1. Development of quality standards and benchmarks for physical education which are based on scientific evidence and add particularly to personal and community development;
2. The development of effective and modular strategies to secure and further develop physical education as an essential component of education;
3. The integration of high-quality and culturally sensitive physical education policies worldwide into education and sports policies.

Meaning of physical education

The survival of human being is primarily physical. The first lesson a human child learns is a lesson of physical activity. No education, however ideal and decorous in its objectives without stress on motor activity. The human body is a gift of nature. Its growth, development and competency is mostly depend upon the quantity and quality of motor activities it performs. In this context the word 'physical' refers to body and indicates body characteristics such as strength, speed, endurance, health, performance etc. Some people are often flawed in defining physical education. They often guess that physical education is sport education. Simply but, physical education is a process of education through physical activity. Way of physical education is different from education as it tries to fulfill it through the medium of physical exertion.

Why sports culture should be highlighted?

Some of the research also suggests that being involved in sports may raise the employability level of young people by developing specific 'core' and 'soft' skills. In India, we are nowhere near major sporting nations like Great Britain, USA or Australia in the sporting arena, but the growth and development over the last 8-9 years is quite hopeful. Sports companies catering to grassroots coaching and sponsorships are quickly increasing everywhere. One important aspect which needs due attention, especially by coaching companies who are working with young children, is to educate parents and other beneficiary about sports and its benefits. Nowadays, there is self-realization among parents that there is huge lack of physical activities for their children, so their core objective is to address that aspect when they are enrolling their children to any training centre.

As per studies by different government agencies currently, approximately only 0.06 per cent of the Indian population exercises on a regular basis; the average cardiac attack age in India is 45-50

years, and every third child is suffering from obesity. To make the situation even more alarming for the Indian society, it is highlighted by a recent government research that children are spending 7.2 hours studying (no physical activity) against only 39 minutes in playing activity in a day.

According to the estimate of the Planning Commission of India, by 2016 India will have approximately 510 million people in the age group of 15 to 35 years, making India the youngest population in world which is not healthy

Sports education is required more than ever as more people have started becoming aware of sports compared to the situation 10-15 years ago. Sports Education Programs need due attention of all stakeholders in sports. Many people may think that sports are just a casual time-pass activity or a way to be fit, but in reality, sports are a way to live life with full enthusiasm.

Trend in physical education

Trend in the physical education has been changed recently in a manner that students are being introduced with other activities like bowling, hiking and walking and these may turn to be a habit during later stage of life. Stress which is a common phenomenon in general life and sports as well is being reduced through yoga.

The trend of health and nutrition to the physical education curriculum is in early stage. All school districts with a central funded school meal program develop wellness policies that address nutrition and physical activity. Quality Physical Education programs will benefit the lifestyle of young people. It is more important for the elementary classes because they have no health and nutritional specific classes. Health and physical education classes are now added in the curriculum of primary schools. .

The importance of PE for Indian children

Structured physical education (PE) must be made an integral part of school curriculums in India. For such a young and socio-economically diverse population, PE through schools can become a powerful holistic development tool for Indian children. Most schools in India have failed to integrate structured physical education (PE) into the school's curriculum. Focus is on mainstream subjects, as schools fail to see how a structured PE curriculum can add to the development of young children, by aiding in their physical, mental, emotional and social growth. With 29.5% of India's population under 14 years old (Indian Census, 2011), PE must be utilized as an effective tool for the holistic development of Indian children, from diverse socio-economic backgrounds. The obvious benefit of PE, of keeping children fit, active and healthy, is particularly important for children living in urban India, from stronger economic backgrounds, where obesity has become a major issue. It is important that the various stakeholders of schools, including management, teachers, parents, students and the education ministry recognize the role that PE can play in the development of children, and prepare a roadmap to introduce structured PE programs in schools across India.

Conclusion

So keeping in mind the whole scenario of the world we have to say that lot of changes is needed in our curriculum. It should be constructed in such a way that to meet the latest demand of children. Popularity of sports should be spread so that youth of nation get involved in it. Parents, teacher, society and government should start a campaign to make sports a habit of every child only then it will be possible for us to put majority of youth in right direction to be a good citizen of our nation

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Daily Exercise; Key for fitness and healthy life**Dr. Mahesh M Joshi**Director of Physivcal Education and Sports
Kewalramani Harde Mahavidyalaya, Chamorshi Dist. Gadchiroli**Introduction**

Regular Physical activity and exercise can help you stay healthy, energetic and independent as you get older. Exercise play a vital role in preventing health diseases and stroke. The health benefits of doing regular Exercise have been shown in many studies. This paper review the evidence of the benefits of exercise for all the body systems. Physical activity and exercise can reduce stress and anxiety, boost happy chemicals, improve self-confidence, increase the brain power, sharpen the memory and increase our muscles and bones strength.

The term “Physical activity” is not equal to “exercise”. Exercise is a subcategory of physical activity which is structured, repetitive, and purposeful. “A sound body has a sound mind” It means that if a person is weak, dull, and sick, he is not able to do his work efficiently and quickly. It is very important to have a fresh mind before any work, like office work, study or some creative work. The people who make exercise as essential part of their routine are more happy and efficient than others.

Exercise

Exercise is a subcategory of physical activity that is planned, structured, and repetitive for the purpose of conditioning any part of the body. Exercise is used to improve health, maintain fitness and is important as a means of physical rehabilitation. Also we can define exercise as any bodily movement performed in order to develop or maintain physical fitness and overall health.

Types of exercise

Exercise and physical activity fall into four basic categories endurance, strength, balance, and flexibility. Most people have a habit of to focus on one activity or type of exercise and think they're doing enough for their health. Each type of exercise is different however doing them all will give you extra benefits. Mixing it up also helps to reduce boredom and stop the possibility of injury.

1. Endurance

Endurance or aerobic, activities increase your breathing and heart rate. They keep your heart, lungs, and circulatory system healthy and improve your overall fitness. Building your endurance makes it easier to carry out many of your everyday activities. Walking or jogging, mowing, raking, digging and Dancing are kinds of this type.

2. Strength

Strength exercises make your muscles stronger. Even small increases in strength can make a big difference in your ability. We can find this type of exercise in Lifting weights, using a resistance band with your own body weight.

3 Balance

Balance exercises help prevent falls, a public problem in older adults. Many lower-body strength exercises also will improve your balance. This type can be noticeable in Standing on one foot, Heel-to-toe walk and Tai Chi.

4. Flexibility

Flexibility exercises stretch your muscles and can help your body stay limber. Being flexible gives you more freedom of movement for other exercises as well as for your everyday activities. Some examples for that in Shoulder and upper arm stretch, Calf stretch and Yoga.

Need of Exercise

Everybody knows that the need of exercise in our daily lives, but we may not know why or what exercise can do for us. Exercise means, the daily practice of doing some physical work. Exercise is the key to good health and fresh mind. The daily practice of some physical work does not mean to take stress on body, but it is actually the stress relieving activity.

Importance of Exercise

Each one of us has a physical body made of muscles, blood, bones and various other living tissue. When any of these are injured or not working properly then we get ill. Nobody likes to be ill. So, it is important that we keep our body healthy and fit. Exercising the body is one way of keeping it

healthy. If we do not exercise then our muscles become weaker and we are less able to do things properly. Also the bones can become weaker and thus break easily

Benefits of Exercise

Regular exercise makes the heart stronger and the lungs fitter, enabling the cardiovascular system to deliver more oxygen to the body with every heartbeat and the pulmonary system to increase the maximum amount of oxygen that the lungs can take in. Exercise lowers blood pressure, slightly decreases the levels of total and low-density lipoprotein (LDL) cholesterol (the bad cholesterol), and increases the level of high-density lipoprotein (HDL) cholesterol (the good cholesterol).

1 Reduce stress and anxiety.

Stress relief is one of the most common mental benefits of exercise. Regular Exercise can help to manage physical and mental stress.. Being active greatly causes a reduction in stress levels. Aerobic and anaerobic physical training helpful for overall health. Study suggests that 30 Minutes Exercise for 5 or more days in a week, it helps in lowering the desperation and mental stress. On the other hand Physical activity makes you more tired so you're more ready to sleep. Good quality sleep helps improve overall wellness and can reduce stress. Regarding anxiety, the warm and chemicals that are released during and after any physical exercise can help people with anxiety disorders calm down. Jumping on the track or treadmill for some moderate-to-high intensity aerobic exercise can reduce anxiety sensitivity.

2 Boost happy chemicals

Exercise releases endorphins, which create feelings of happiness and euphoria. Studies have shown that exercise can even improve symptoms among the clinically depressed. For this reason, doctors recommend that people suffering from depression or anxiety. In some cases, exercise can be just as effective as antidepressant pills in treating depression. Higher energy levels resulting from exercise help a person in remaining fresh and happy. Following a suitable exercise program can add some fun and brightness to the day. Working out for just 30 minutes a few times a week can instantly boost overall mood.

3 Improve self-Confidence and self-Image

Physical fitness can boost self-esteem and improve positive self-image. Regardless of weight, size, gender, or age, exercise can quickly elevate a person's perception of his or her attractiveness, that is, self-worth. It has been proved that in less time of aerobic exercise and resistance training method definitely will help to improve self-image. One of the latest research was in consistency with most of the previous studies which found significant relationship between physical activity and self-esteem by using different study designs and self-esteem scales.

4 Sharpen memory

Regular physical activity increases memory and ability to learn new things. Getting sweaty increases production of cells in hippocampus responsible for memory and learning. For this reason, research has linked children's brain development with level of physical fitness, but exercise-based brainpower isn't just for kids, regular exercise can boost memory among adults, too. A study showed that running sprints improved vocabulary retention among healthy adults.

5 Improves muscles and bones strength

Exercise involves a series of sustained muscle contractions, of either long or short duration, depending on the nature of the physical activity. Muscle-strengthening activities can help you increase or maintain your muscle mass and strength. Strong muscles and ligaments reduce your risk of joint and lower back pain by keeping joints in proper alignment. Additionally, with exercise improvements to the circulatory and respiratory systems can facilitate better delivery of oxygen and glucose to the muscle

6. Preventing Obesity

Obesity and overweight are associated with increased risk for hypertension, osteoarthritis, abnormal cholesterol and triglyceride levels, type 2 diabetes, coronary heart disease, stroke, gallbladder disease, sleep apnea, respiratory problems and some cancers. Obesity is a significant health problem all over the world for all ages. Genetics can play a role in the possibility that a person will become obese, the condition occurs when the amount of calories consumed exceeds the amount of calories expended over a long period of time. The more you exercise, the easier it is to keep your weight under control. Excess calories are stored as fat in the body, and with long-term caloric excess, an individual eventually becomes obese.

Conclusion

Exercise not only makes you physically fitter but it also improves your all body health and general sense of well-being. Physical activity or exercise can reduce the risk of developing several diseases like type 2 diabetes, cancer and cardiovascular disease. Daily exercise can reduce stress and anxiety, boost happy chemicals, improve self-confidence, increase the brain power, sharpen the memory and increase our muscles and bones strength. Physical activity and exercise can have immediate and long-term health benefits. Most importantly, regular activity can improve your quality of life. A minimum of 30 minutes a day can allow you to enjoy these benefits.

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Depression And Anxiety Prevalence In Student-Athletes**Dr.Ghanshyam Makkasare**

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In 2016, more than 10000 students. adults over the age of 18 (about 18 percent) had a mental disorder, and nearly 85% of students had a mental illness that greatly affected day-to-day living or resulted in serious functional impairment. Almost three-fourths of those who have been diagnosed with a mental disorder, such as anxiety, mood disorders, etc., have their first onset by age 24.

College students – including student-athletes – are not immune to struggles with mental well-being. About 30 percent of the 10000 respondents to a recent Indian Public Health Association (IPHA) survey reported having felt depressed in the last 12 months, and 50 percent reported having felt overwhelming anxiety during the same period.

One of the primary concerns regarding the prevalence of mental illness among student-athletes is that it may affect not only their success in academics and athletics but also their general well-being. While depression and anxiety have been found to be significant predictors of a lower grade-point average and poor athletics performance, they're also highly correlated with other risky behaviours, including suicide.

While it's not clear whether the source of challenges to student-athlete mental well-being is the same as those non-athletes face, collegiate athletes are known to encounter unique stressors that the general population doesn't have to deal with, such as time demands, relationships with coaches, and missed scheduled classes.

To help determine the prevalence and effects of anxiety and depression in the student-athlete population, we studied data from eight National College Health Assessment surveys the IPHA administered from 2015 through 2016. Those surveys cover issues including substance use, sexual behaviour, physical health, weight, personal safety, violence, and mental health and well-being.

Varsity student-athletes were identified as those who answered "yes" to the question: "Within the last 12 months, have you participated in organized college athletics at any of the following levels...a) Varsity?" The others compose the non-athlete comparison group. In total, 5000 student-athletes and 10000 non-athletes were included in the analyses.

Both associated and demographic variables were included in the models. Demographic variables included sex, race, sexual orientation, transfer student status in the last 12 months and varsity athlete status in the last 12 months. The associated variables included perceptions of general health, perceptions of stress and substance use.

Additionally, a multi-part item asking whether a series of events or situations had been traumatic or difficult for one to handle was included in the model. These included:

- Academics
- Career-related issue
- Death of a family member or friend
- Family problem
- Intimate relationship
- Other social relationship
- Finance
- Health problem of a family member or partner
- Personal appearance
- Personal health issue

Sleep difficulty

After accounting for the demographics, nearly all of the associated variables were significant predictors for depression and anxiety, including student-athlete status, which was a negative predictor. A few factors presented a comparatively strong relationship with depression and anxiety. Not surprisingly, the strongest was the perceived level of stress in the last 12 months. Stress can be associated with a number of the daily challenges college students face, including academics, interpersonal relationships, health concerns of a family member and financial concerns. Symptoms such as fatigue, hypertension, headaches, depression and anxiety can be attributed to stress.

The IPHA data show that sleep difficulties, and difficulties with intimate relationships and other social relationships also are strongly related to depression and anxiety.

Sleep difficulty was a self-reported measure asking if the respondent had experienced trouble sleeping in the last 12 months. Of those who reported yes, just 9 percent indicated that they had been

diagnosed with insomnia in the last 12 months, and an additional 4 percent reported they had been diagnosed with another sleep disorder.

Fewer are being treated with medication for their diagnoses – just 7 percent in total. While few are reporting official diagnoses, a significantly greater percentage is reporting that difficulties with sleep are affecting them. Among those who said they are experiencing difficulty sleeping, 34 percent indicated that sleep difficulties resulted in a lower grade on an exam or test, and an additional 13 percent reported that it resulted in a lower grade in the course. (See Michael Grandner’s article later in this chapter for more on sleeping disorders.)

The data also show that females and underclassmen were more likely to report difficulties with intimate relationships and other relationships. While reports of physical or sexual abuse in an intimate relationship are generally low (around 2 percent of all respondents), emotional abuse appears to be a greater concern, with 10 percent overall report having been in an emotionally abusive relationship. In all, 22 percent of those who claim having experienced difficulties in an intimate relationship report emotional abuse.

Loneliness is a common factor related to difficulties in relationships. Among those who reported relationship problems, 85 percent reported feeling very lonely in the last 12 months, compared with 50 percent of those who did not report problems with relationships. The data indicate that loneliness also is highly correlated with both anxiety and depression.

Anxiety also was strongly related to difficulties with academics. An additional factor with a significant relationship to both depression and anxiety was a catch-all category of “other” traumatic events. This may potentially include characteristics of collegiate student-athletes that were not covered in the survey. For example, poor athletics performance or loss of an athletics scholarship may be traumatic for student-athletes who are highly motivated athletically.

Seeking help. Most student-athletes and non-athletes in the study indicated a willingness to seek help for mental health concerns in the future (63 percent of student-athletes, compared with 68 percent of their non-athlete peers). However, the data indicate that student-athletes are less likely to report having received psychological or mental health services from a variety of providers, including counsellors and psychiatrists. This could be due either to a reduced need among the student-athlete population or because they are less likely to report and seek treatment for these concerns.

Overall, while college student-athletes do struggle with depression and anxiety, the data indicate they are less likely than their non-athlete peers to report issues with either. Stress, interpersonal relationships and difficulty sleeping are strongly associated with depression and anxiety. Moreover, academic difficulties also are related to higher anxiety. Given the reluctance of student-athletes to report challenges with mental well-being, coaches, team physicians and athletic trainers are a good potential line of defence in encouraging their athletes to seek help when needed.

Comparative Study of Balance and Reaction Time between Women Taekwondo and Karate Players

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Abstract:

The main purpose of the study is to compare balance and reaction time between Women Taekwondo and Karate players. For the present study, the data were collected from the state level karate and taekwondo players of different affiliated colleges of Jammu University. The data pertaining to balance and reaction time was collected from 40 subjects were selected 20 from women karate players and also 20 from women taekwondo players through simple random sampling for testing the hypothesis. The statistical analysis and interpretation was done on the basis of data collection. The data was analyzed and interpreted by using 't' test. It was hypothesized that there would be significant difference of balance and reaction time between women Taekwondo and Karate players.

Keywords: Balance, Reaction Time, Women Taekwondo and Karate Player.

Introduction:

Physical fitness is the positive state of well-being allowing you enough strength and energy to participate in a full, active life-style of your choice. Individuals are physically fit when they are able to meet both the usual and unusual demands of daily life, safely and effectively with undue stress or exhaustion. Physical fitness is the capacity to carry out reasonably well various forms of physical activities without being unduly tired and includes qualities important to the individual's health and well-being.

Reaction time is the time that elapses between the movement a stimulus is detected by the brain and the movement of response starts. Tests have confirmed that nobody can react in less than 0.110 of seconds. Reaction time is quickest for young adults and gradually slows down with age. It can be improved with practice, up to a point, and it declines under conditions of fatigue and distraction.

It is the ability of the vision system to coordinate the information received through the eyes to control guide and direct the hands in the accomplishment of a given task such as hand-writing or catching a ball. The ability to hold the body position in comparatively less stable positions is known as body balance. Balance is of two types static balance and dynamic balance.

The interval between presentation of stimulus and the first response is called Reaction Time. In other word it is the time taken in responding to a visual or auditory stimulus. It may also be divided into two categories, Visual Reaction Time and Auditory Reaction Time.

Methodology

Source of Data:

For the present study the researcher was taken the female subjects from Jammu University and these subjects would be taken as sources of data.

Selection of Subject:

40 subjects were selected for this study, 20 from women taekwondo players and 20 from karate players.

Sampling method:

The 40 subjects were selected by the simple random sampling method.

Collection of data:

The data was collected on the selected subjects by admitting the appropriate test before collection of data. The scholars explained the purpose of the study to the subject; so as to they put their best.

Equipment used for collection of data:

Following equipment's and test was used for collection of data:

Stork Stand Test and Static Balance Tests:

This test was used to measure the static balance on the ball of the foot.

Equipment: Stopwatch, dairy, pen.

Nelson's Hand Reaction Time Test

This test was used to measure the reaction time of hand movement in to a visual stimulus.

Equipment: Electronic audio visual reaction time machine.

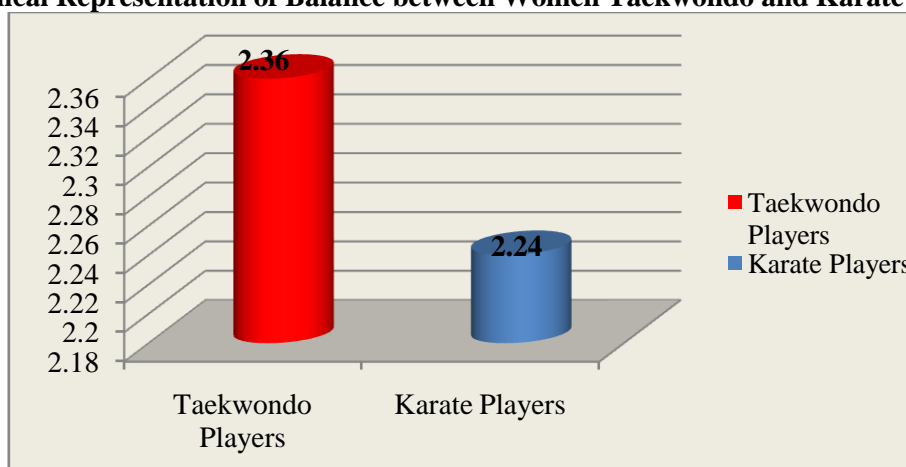
Analysis And Interpretation Of Data

The statistical analysis and interpretation was done on the basis of data collection. The data was analyzed and interpreted by using 't' test. The statistical result of the undertaken balance and reaction time of women karate and taekwondo players for verifying researcher's hypothesis has shown in the following tables.

**Table-1
Comparison of Balance between Women Taekwondo and Karate Players**

Players	Mean	S.D.	M.D.	S.E.	O.T.	T.T.
Taekwondo	2.36	0.11	0.12	0.03	4.18	2.02
Karate	2.24	0.07				

**Graph-1
Graphical Representation of Balance between Women Taekwondo and Karate Players**



**Table-2
Comparison in Reaction time in Audio between Women Taekwondo and Karate Players**

Players	Mean	S.D.	M.D.	S.E.	O.T.	T.T.
Taekwondo	0.49	0.13	0.03	0.04	0.75	2.00
Karate	0.46	0.11				

**Graph-2
Graphical Representation of Reaction time in Audio between Women Taekwondo and Karate Players**

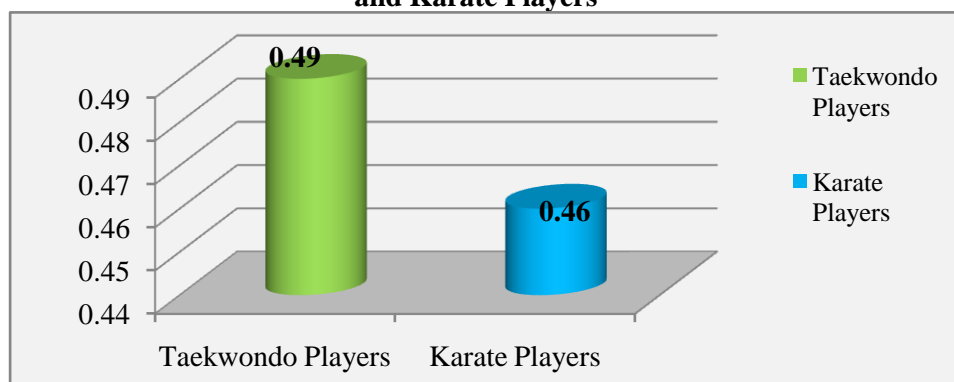
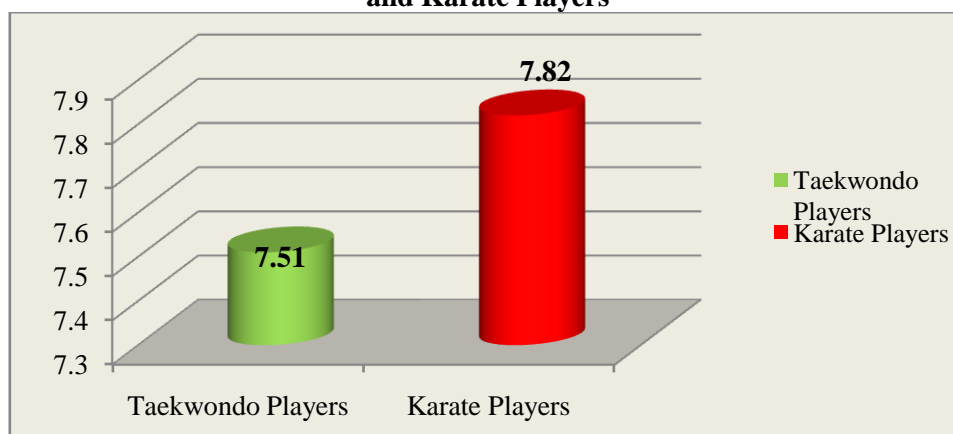


Table-3
Comparison in Reaction time in Visual between Women Taekwondo and Karate Players

Players	Mean	S.D.	M.D.	S.E.	O.T.	T.T.
Taekwondo	7.51	0.27	0.31	0.09	3.47	2.02
Karate	7.82	0.29				

Graph-3
Graphical Representation of Reaction time in Visual between Women Taekwondo and Karate Players



Conclusion:

The researcher initially pre assumed that there will be a significant difference in the reaction time and balance between women Taekwondo and Karate players and after the statistical analysis interpretation of data it was found that there is no significant difference in the reaction time and balance between women Taekwondo and Karate players, because in some cases the calculated ‘t’ exceeded the tabulate ‘t’ and some cases the calculated ‘t’ unexceed the tabulated ‘t’ at level of significance 0.05. Hence the Researchers pre assumed have been rejected.

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A Critical Study of Impact of Various Asanas and Pranayam on Physical Fitness and Sports Performance of Kho-Kho Players

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1.0 Introduction

We all know that regular physical activity, fitness, and exercise are critically important for the health and well being of people of all ages. Past research has demonstrated that virtually all individuals can benefit from regular physical activity, whether they participate in vigorous exercise or some type of moderate health-enhancing physical activity. Engagement in regular physical activity is critical to sustaining good health. Regular physical activity has beneficial effects on most (if not all) organ systems, and consequently it also helps to improve the performance of sportspersons.

In order to achieve the objectives of the physical education, the educational system needs more insights about the role of physical education in improving the health of school children. Traditionally, the educational system of India has been considered as one of the best in the world. In ancient India spiritual thoughts influenced each and every area of life and it also had great influence on the concept of education. In vedic education, perseverance, chastity and independent thinking were given special importance. Apart from these ideologies, the concept of yoga and the various asanas and pranayam types has been acknowledged by many as the positive measure for improving fitness as well as performance in various sports. It has been used by many sports coaches, however, its role as well as efficiency in improving the physical fitness of Kho-Kho players is not known in detail. Thus, in view of the benefits of yoga, the research scholar has selected the above study to find out the effect of yoga on physical fitness and sports performance of the Kho-Kho players.

2.0 Research Methodology

2.1 Sample selection

In the present study 150 Kho-Kho players belonging to the age group 12 to 16 years were selected randomly from the Nagpur District of Maharashtra.

2.2 Tests for physical fitness and sports performance measurements

The flexibility of Kho-Kho players was assessed using sit and reach test (Kansal, 1991). However, Aerobic capacity (cardiovascular endurance) was determined by using 1.5 mile run and walk test while peak expiratory flow (lung capacity) was determined by using peak flow meter. A standardized questionnaire was used to collect data pertaining to the performance of Kho-Kho players post training program that incorporated regular yoga sessions with various Asanas (Naukasan, Dhanurasan, Paschimottanasan and Tadasan) and Pranayam. The yoga training was carried out for a period of six months prior to start of Kho-Kho tournament season.

2.3 Statistical Analysis of Data

The data generated during the present study was processed using various statistical tests with the aid of SPSS 18.0 statistical software. The reliability was estimated using SPSS 18.0 software. The data characteristics (descriptive statistics), frequency, percentage, minimum and maximum, etc. were determined. The comparative assessment was done using 'Chi-Square' test. The significance level was chosen to be 0.05

3.0 Results and Discussion

3.1 Flexibility of Kho-Kho players

Table 1: Impact of Asanas and Pranayam on Flexibility of Kho-Kho players

Impact on flexibility	No. of Kho-Kho Players	Percentage
Very high	82	68.3
Moderate	29	24.2
Low	9	7.5
Total	120	100.0

Chi-square 71.15; df: 2, P=<0.05; Table Value: 5.99

Above **Table 1** presents results of the study carried out to determine the impact of asanas and pranayam (Naukasan, Dhanurasan, Paschimottanasan and Tadasan) on flexibility of Kho-Kho players. From the study results, it was evident that 68.3% players revealed that there was high impact of asanas and pranayam on the flexibility of Kho-Kho players. Moreover, 24.2% players indicated moderate impact on their flexibility and further, 7.5% players had low impact of asanas and pranayam on their flexibility.

3.2 Cardiovascular endurance of Kho-Kho players

Table 2: Impact of Asanas and Pranayam on Cardiovascular endurance of Kho-Kho players

Impact on cardio-vascular endurance	No. of Kho-Kho Players	Percentage
Very high	104	86.7
Moderate	12	10.0
Low	4	3.3
Total	120	100.0

Chi-square 154.4; df: 2, P=<0.05; Table Value: 5.99

Above **Table 2** presents results of the study carried out to determine the impact of asanas and pranayam on cardiovascular endurance of Kho-Kho players. From the study results, it was evident that 86.7% players revealed that there was high impact of asanas and pranayam on the cardiovascular endurance of Kho-Kho players. Moreover, 10.0% players indicated moderate impact on their cardiovascular endurance and further, 3.3% players had low impact of asanas and pranayam on their cardiovascular endurance.

3.3 Lung capacity of Kho-Kho players

Table 3: Impact of Asanas and Pranayam on Lung capacity of Kho-kho players

Impact on Lung Capacity	No. of Kho-Kho Players	Percentage
Very high	104	86.7
Moderate	12	10.0
Low	4	3.3
Total	120	100.0

Chi-square 154.4; df: 2, P=<0.05; Table Value: 5.99

Above **Table 3** presents results of the study carried out to determine the impact of asanas and pranayam on lung capacity of Kho-Kho players. From the study results, it was evident that 86.7% players revealed that there was high impact of asanas and pranayam on the lung capacity of Kho-Kho players. Moreover, 10.0% players indicated moderate impact on their lung capacity and further, 3.3% players had low impact of asanas and pranayam on their lung capacity.

3.4 Sports Performance of Kho-Kho players

Table 4: Impact of Asanas and Pranayam on Sports Performance of Kho-Kho players

Impact on sports performance	No. of Kho-Kho Players	Percentage
Very high	98	81.7
Moderate	17	14.2
Low	5	4.2
Total	120	100.0

Chi-square 127.95; df: 2, P=<0.05; Table Value: 5.99

Above **Table 4** presents results of the study carried out to determine the impact of asanas and pranayam on sports performance of Kho-Kho players. From the study results, it was evident that 81.7% players revealed that there was high impact of asanas and pranayam on the sports performance of Kho-Kho players. Moreover, 14.2% players indicated moderate impact on their sports performance and further, 4.2% players had low impact of asanas and pranayam on their sports performance.

4.0 Conclusions

4.1 Flexibility of Kho-Kho players

- From the study results it is concluded that majority of Kho-Kho players felt increase in their body flexibility level and had high impact of asanas and pranayam.

4.2 Cardiovascular endurance of Kho-Kho players

- In view of the study results it is concluded that majority of Kho-Kho players felt increase in their cardiovascular endurance level and had high impact of asanas and pranayam.

4.3 Lung capacity of Kho-kho players

- From the study results it is concluded that majority of Kho-Kho players felt increase in their lung capacity and had high impact of asanas and pranayam.

4.4 Sports Performance of Kho-Kho players

- On the basis of study results it is concluded that majority of Kho-Kho players felt growth in their sports performance and had high impact of asanas and pranayam.

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Medicinal Plants Used For Curing Injuries and Bone Healing Of Sport Person By Melghat Tribes

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Abstract

Fracture is defined as complete or incomplete separation in the continuity of bone. Fracture healing is a complex physiological process that involves the coordinated participation of hematopoietic and immune cells within bone marrow. In conjunction with vascular and skeletal cell precursors it also includes mesenchymal stem cells which are recruited from the circulation and the surrounding tissues. It is estimated that 80% of the population in developing countries still rely on the traditional herbal medicines. Herbal treatment was practiced by the local medicine practitioner (vaidus) and tribals too. They range from simple fever treatment to bone injuries. Knowledge of local medicinal plants and their identification will be a helpful thing in countries like India which has less resources in health sector. Herbs can be effective in reducing swelling, pain and soreness of the fracture and also speedy recovery of function. In last few decades there has been growing interest in alternative forms of therapy globally. Herbal medicines are currently in demand and their popularity is increasing.

Keywords: Bone healing, Skin injuries, medicinal plants

Introduction

Bone fracture, dislocation of joints, wound and injuries during playing the games are always common obstacles. For curing these problems various medicinal plants and plant parts were used as an old practice. The local herbal healer, tribes and vaidus used this practice since time immemorial. The treatment of fracture is found in the writings of Sushruta (500 BC) which described traction, manipulation, and immobilization by splint and by special variety of clay. Also in the times of Hippocrates in 400–335 BC. The main principle involved in such treatment is to bring and maintain the ends of broken fragments together so that nature's effort to bridge the gap continues unhampered. The herbal treatment is an excellent alternative method rather than clinical method due to easy availability and cheap technique.

Natural Remedies For Bone Healing

Study and Survey area

Western Melghat region is rich in biodiversity and consists of vast variety of ethnomedicinal plants [7]. The tribes of Melghat are solely dependent on forest products like plants, plant parts and animal parts [8][5].

Two basic types of fracture healing are the primary or direct fracture healing and secondary or indirect fracture healing. The primary fracture healing occurs with minimal callus formation. It is a direct attempt of bone to reestablish its continuity and thus requires direct contact of cells in the cortex. The majority of fractures heal by secondary or indirect healing. It occurs in four phases: hematoma formation, early inflammatory, repair, and late remodeling phase [1][4]. Severe injuries during playing games may lead to damage the body parts. The various local medicinal plants are applied by the vaidos and local tribes of Melghat [8][6]. The bioactive compounds present in the plants are showing medicinal properties [2][3]. The common medicinal plants are mentioned in Table 1.

Table 1

Sr No.	Plants name	Family	Plant parts used	Uses
01	<i>Cissus quadrangularis</i>	Vitaceae	Leaves	bone healing
02	<i>Bambusa arundinacea</i>	Poaceae	paste of stem or leaves.	fracture healing
03	<i>Salvia miltiorrhiza</i>	Lamiaceae	Stem and leaves	bone fracture.
04	<i>Terminalia arjuna</i>	Combretaceae	Powder of bark	bone fracture
05	<i>Ehretia cymosa</i>	Boraginaceae	Stem Bark and leaves	joint dislocation
06	<i>Cassia occidentalis</i>	Fabaceae	Stem Bark and leaves	bone fracture.
07	<i>Capparis grandis</i>	Capparaceae	Stem and leaves	sore joints, bone healing
08	<i>Curcuma domestica</i>	Zingiberaceae	root powder	fracture healing
09	<i>Argemone mexicana</i>	Papaveraceae	Root juice	cuts and wounds.
10	<i>Croton bonplandianum</i>	Euphorbiaceae	Stem latex	Cuts, wounds and bleeding
11	<i>Capparis zeylanica</i>	Capparaceae	Leaves and stem	Cuts and wounds

Conclusion and Discussion

From the above study it indicates that the medicinal plant used by traditional herbal healer is an alternative, safe and best practice. The local medicinal plants applied on the sportman fracture and injuries during playing the sport and games.

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Psychological Factors And It's Impact On Sports Performance

Prof. Rupali Akhare
Research Scholar

Introduction

It is well known that a sport person must be physically fit to achieve high performance but along with physical fitness mental fitness also plays an important role. So it very important to know the psychological factors that affects sport performance.

There are four main psychological factors which affects sports performance:

- Stress
- Anxiety
- Tension
- Aggression

Stress

Stress is defined as a physical, mental or emotional, demand, which tends to disturb the homeostasis of the body. It is an everyday part of life; if there were no stresses, we would probably “dire of boredom”. Stress is inevitable in life and sport, and all performing actors, artists and athletes perform their tasks with varying stress levels. Used rather loosely, the term may relate to any kind of pressure, be it due to one's job, school work, marriage, illness or death of a loved one. The common denominator in all of these is change. Loss of familiarity breeds this anxiety with any change being viewed as a “threat”.

Stress and Sports Performance

Sports performance is not simply a product of physiology (for example stress and fitness) and biomechanical (for example technique factors) but psychological factors also play a crucial role in determining performance. However, every athlete has a certain stress level that is needed to optimize his or her game. That bar depends on factors such as past experiences, coping responses and genetics. Stress during sports, as in anything else in life, may be acute, episodic or chronic. For the most part in sports, it is episodic, whether during a competitive match between friends, or a championship game. While acute stress may actually act as a challenge, if not harnessed, it can evolve to not only an episodic stressor that can affect one in the long term, but can also hamper one's play

Anxiety

Anxiety means a disturbed state of mind, emotional reactivity; arousal; nervousness; and unrealistic and unpleasant state of mind. Anxiety is an essential ingredient of any competitive situation and without certain level of anxiety, there cannot be competitive performance. Neither too high, nor too low level of anxiety is conducive to sports performance. Adequate level of anxiety produces best results. Unless sports persons learn to cope up with stressful competitive situations by managing anxiety, they would fail to achieve their goal. Anxiety has both psychological and physiological implications in sport performance. For example, once aroused, it raises the general arousal level of the player to such an extent that he finds it hard to concentrate on his game due to constant bombardment on his nervous system and his inability to diffuse tension caused by rising anxiety level. The ability of the player to monitor and judge situations correctly is reduced. His information-processing mechanism gets over stressed resulting either in wrong or slow response even to emergent situations. Under such a condition, the player is not focused-he wishes to do on thing but does something else. He loses control over his body and mind.

Tension

As already hinted at, tension is that state of body and mind, which results from the internal and/or forces acting in opposition to each other such in emotional reactions like anger or fear. In one sense, tension may refer to the residual effect of mental or emotional strain reflected in a person's appearance and/or behaviour; in another sense, it means tonus-a state of partial contraction when muscles are not actively working. Excessive tonus is called tension, which may result from excessive stimulation or from strains and stresses upon the organism. This kind of tension is not as harmful as kind of tension which arises from a state of persistent unsatisfied wants and desires. Physiologically and psychologically as long as a person's wants are unsatisfied he remains in a state of tension.

Aggression

Aggression, in its broadest sense, is behaviour, or a disposition, that is forceful, hostile or attacking. It may occur either in retaliation or without provocation. In narrower definitions that are used in social and behavioural sciences, aggression is an intention to cause harm or an act intended to increase relative social dominance. Predatory or defensive behaviour between members of different species may not be considered aggression in the same sense. Aggression can take a variety of forms and can be physical or be communicated verbally or non-verbally. Aggression differs from what is commonly called assertiveness, although the terms are often used interchangeably among laypeople, e.g. an aggressive salesperson. Aggression is defined as threats or harmful actions directed toward another individual and can include threat displays, lunging, growling, snarling snapping and biting. In animals, aggressive behaviors are a means of communication. Dogs and cats use aggressive displays, threats and attacks to resolve competitive disputes over resources (territory, food) or to increase their reproductive potential, or to escape threatening situations. "Aggression" describes the behavior, but does not give any information about underlying motives or causes. Aggression can have multiple motivations

Conclusion

For managing or controlling stress, anxiety, tension and aggression a variety of coping skills, strategies and intervention techniques such as behavioral modification, positive reinforcement, mental imagery, visualization, relaxation, cognitive strategies, muscular and mental relaxation, behavioral modification, visualization, Zen meditation, imagery skill training, goal-setting, positive self talk, pep-talks, hot baths, desensitization, inner mental training etc., have been suggested in literature

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Application And Use Of Computer Rechnology In Physical Education And Sports

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Abstract

Physical education and sports is in fact a subject of science i.e. sports science. It is a multidimensional in nature because of its interdisciplinary characteristic. The field of physical education and sports is an interdisciplinary profession. This way physical education has its branches for sports statistics, sports medicine, sports coaching, bio-mechanics; biochemistry management law, etc. computers are being used in all of the following areas of physical education. The filed of computer science is also very vast. Computer science is one of the major components of an information technology network, which has permeated every existence of modern man and physical education is no exception. The use of information and communication technologies in any field makes process of that field, effective and interesting. Computer technology brings revolution in the world of sports. With the use of new technologies in sports it become very easy to give the exact results and also the best result outcome from the players.

Keywords: Technology, Computer, Physical education and Sports.

Introduction:

Sports commonly refer to activities where the physical capabilities of the competitor are the sole or primary determinant of the outcome (winning or losing). Sports education is a form of physical education that emphasizes participation in sports as a way of developing skills, learning rules, practicing good sportsmanship, leading an active lifestyle, participation in learning leadership skills.. It is training in the development of and care of the human body; stresses athletics; includes hygiene. Advancement in the field of computer science has a great level of involvement to take sports to its height. When the first Olympics games was started in Athens there was the application of science involved in all the sports but they could not recognize it as the level of science in sports was almost empty. As history explains the present generation that the involvement of computer science in sports took very fast transcending period. Today in the 21st century the things have changed as there cannot be sports without computer science. It means for all the athletes starting from 100M sprinter to highly skilled sports such as shooting, high jump, swimming, gymnastics etc. it has become so necessary that every sport need the help of computer science to get the best result with minimum expenditure of energy and time. To check the correct start in all the runs, see the fastest finisher, record the names of the players, time taken, and energy used etc. the computer will give transparent result and there is satisfaction to all the athletes.

Terminology:

Physical Education

Physical education is an element of an educational curriculum concerned with bodily development, strength, physical co-ordination, and agility

Sports Education

Sport education is an activity that is governed by a set of rules or customs and often engaged in competitively

Technology

Technology is a term with origin in the Greek “technologia”, a- “techne“. In short most popular word refers to english is “technique”. We can easily define the word as a skill or the method to achieve the specific task.

Objective Of The Study:

To know the use and application of computer technology in physical education and sports.

Review Of Literaure:

Grantland (2016) affirmed that a sport and physical education teaches to play well the game of life. Every country in the world now should get injected with computer science so that the level of sports will rise and the interest of the athletes will get boosted. **Chimoria (2017)** reveals that A high jumper follows the techniques of biomechanics to achieve the highest height. The kind of warming up and

cooling up is taking into consideration varying from events to events by all the athletes. The kind of diet they must take and the amount is also guided by science with the help of computer. Today athlete are coached using computer devices to teach them the techniques and also to let them know their mistakes.

Uses Of Computer Technology

Memory: R.A.M (random access memory) data processing and carrying out secondary i.e. auxiliary required for storing data.

Speed: they can carry out instructions in less than a millionth of a second.

Accuracy: computer also calculate scientific calculation accurately i.e. with high precision. Give results up to a desired number of digits after decimal.

Universality: communicate with each other and share data among themselves.

Interface ability: Modern computers can be connected to printers, video projectors, scanners, audio sets, video sets, and so many. Thus there is a direct relationship of the PC and other peripherals.

Artificial Intelligence: Computers can be made intelligent artificially. Robotics is one sort of artificial intelligence.

Application Areas Of Computer Technology

Sports journalism, judgment of the competition, recording information, media, sports wears design, sports management, the information of sports and their result, preparing grounds, Coaching and training, Biomedical modeling and motion analysis, Development of new sport games, sports and robotics, improvement of sports equipments, to provide the best facility to the players and also to the spectators, sports statistic and research, and sports medicine

Sports Specific Computer Programmes

Computer For Office Automation:D.F.C and accounting. Mailing, balance sheet, budgeting etc.

Computer For Coaching Programme: A computer can easily prompt us if some deficiency in compared to a standard is found. Records pertaining to the player's performance can be kept and compared for plan of action.

Computer For Research Programme: better use in searching reviews, in collecting the related literature. Storing the data and retrieving them as per our need. One of the major thrust areas of computer application is statics. It is because of the multi-step calculation involved in complex techniques like ANCOVA, multi regression analysis, two-way ANOVA, etc.

Computer For Bio- Mechanical Analysis : Now-a-days Bio-Mechanical Analysis is done with help of computer-Aided-Graphics packages. This helps in knowing the movements at every stage of performance. Accordingly the coach can impact the modified coaching programme and kept up date the requirement of sports training aspects.

Computer For Selection Of Players: This is done with help of Multiple Regression done through research done in different games and sports. For this a computer is a must to store the huge amount of research data and its analysis.

Computer For Coaching Aid: To store data, simulate different games and sports. They are used as a Coaching Aids

Computer For Presentation Aids : Computers can be used as a teching Aid. Power point presentations with the combinations of graphics. Sound, animation, and video clip become much more attractive and effective than any other technical presentation, computerized scoring systems, computerized tests and evaluation, etc.

Advancement Of Computer Software:

JAWS (9.0) :Its important software for a blind person. It is called screen reading software.

Mini Tab & Mat Lab: Software use for statistical analysis of psychological test as well as research areas of physical education like ANOVA, ANCOVA, Regression etc.

Conclusion:

Sports and physical activity is not just taking about the game of sports. It is about the game of life. Sports it is very use full to keep managerial record, evaluation of students, research project, exchange information, to know the most recently curriculum etc. There is no doubt that the athletes are linked with computer science but even the administration and management in sports are taking help from computer science like maintaining records of all the events, plans Use of Computer technology is very useful for the development in all factors.

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Higher Education In India In Post Globalization Era

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Introduction

Education is the backbone of a nation. So education should be acquired from the cradle to grave. Higher education occupies the apex of educational pyramid in the formal process of education. Generally it comprises of three stages- graduate, post graduate and research programme i.e. M.Phil and Ph.D. Higher education also comprises of general, technical, commercial, medical, engineering, law and other professional degrees and diplomas. Therefore the scope of operation of higher education is extensive and intensive. It is intensive in the sense that, it provides a broad prospective of opportunities to the students about almost all the aspect of our life. In the recent year efforts have been made by the commission to regulate the growth of higher education as well as the establishment of new universities and colleges with a view to ensuring that, higher education grows to meet the genuine needs of the society for trained manpower with appropriate level of professional training. Globalization increases the demand for higher education and for educational quality.

Globalization indeed sounds exciting and makes one feel great and global in many respects such as approach, attitude and changed mind set to compete at international level and finally look for an elevated quality of life. Knowledge society, information and communication technologies, the market economy, trade liberalization and changes in governance structures elements of globalization have a significant impact on higher education. Therefore nations across the world have been striving to create the right educational environment to promote effective teaching and learning to achieve the unique requirements of globalization.

Globalization And Its Impact On Higher Education In India

1. Globalization and economic reforms in India have yielded significant changes in the role of state and restructuring of social welfares education, employment, agriculture and health system. In higher education it was always the monopoly of middle class and elite groups of the society.
 2. Privatization of higher education- There has been an increasing trend towards privatization of higher education in India. The quality and content of the education are industry oriented due to privatization.
 3. Women education- Women literacy rate has grown over the three decades. Women education plays a very important role in the overall development of the country and improving the quality of life at home and outside.
 4. Commercialization- Impact of globalization is commercialization of higher education due to which self financing courses have been introduced which has deprived many from getting higher education especially in countries like India where illiteracy still prevails and education is a dream to many. The existing policy of globalization of higher education is motivated by profits rather than social justice or the policy of the government. Its goals therefore are to meet the demands of the market.
 5. Teacher education- In the global society today the aspects of rapid change, lifelong learning, flexible routes of learning and the use of technology have a major impact on all the areas of teacher education. Major steps to be taken qualitative expansion, value based, competency based and ICT based teaching learning.
 6. Knowledge- The impact of globalization on higher education is the transition to a knowledge society towards universities as knowledge-centers.
 7. Skill- Higher education is seeking ways to meet the demands and challenges put forth by globalization. Higher education today is expected to produce skilled and trained workforce who can compete in this global market.
1. Education policies- Globalization also impact the education policies on higher education in India. In the last two decades Indian government has formed various committees, commission and also different kinds of economic bodies came to existence like NAAC.
 2. Entry of Foreign Universities- Foreign Direct Investment (FDI) is important tool of globalization. As government lack of funds FDI is allowed into higher education. The foreign universities is expected to bring the quality infrastructure in teaching, research as well as physical infrastructure This will attract large scale foreign investments into India and also to an extent reverse brain drain
 3. Communication- The effects of globalization on education bring rapid developments in technology and communications. It changes the role of students and teachers and producing a shift in society from industrialization towards an information-based society.

4. E-learning- People with disability get benefit from globalization only if they endowed with knowledge, skills, capabilities and rights needed to pursue their basic livelihoods. The introduction of technology into the classroom is changing the nature of delivering education to students is gradually giving way to a new form of electronic literacy , more programs and education materials are made available in electronic form, teachers are preparing materials in electronic form; and students are generating papers, assignments and projects in electronic form.

Conclusion

The higher education is treated as the educational pyramid at present times. Now the students have easy scope to acquire higher education because a lot of colleges and universities are opened for higher education. But contribute to national development urgent steps will be taken to protect the system from degradation. Therefore along with quantitative expansive of education quality must be maintain in relation to the global market. Therefore the only slogan of today's higher education will be taught according to requirement. Higher education provisioning is a fairly capital intensive process. It is generally accepted that higher education contributes more to individual career building rather than wider public good. Universities should make provisions to provide loan and fellowship for research atmosphere and building. The need for financing of higher education for students, especially those coming from low income households needs special attention. We should encourage foreign universities to come to India to setup in collaboration with existing Indian institutions, colleges to promote global research activities for sustainable development. It will also improve our educational standards as well as solve the burgeoning problem of enrolment. Opening Indian higher education to foreign competition will benefit us and boosts our growth.

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Psychological Therapy For Peak Performance In Sports

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Introduction

The establishment of psychology as an independent discipline separate from the discipline of philosophy and biology from which it emerged is attributable to the German psychologist Wilhelm (Max) Wundt (1832 – 1920). Who published a book on principle of physiological psychology in 1873 and the book became the first major textbook of experimental psychology. Wilhelm is also known for his establishment of the first psychological laboratory in Leipzig in 1879. Hayes (1998) observed that psychology as a formal branch of knowledge is usually considered to date from the 1880s, with the work of the pioneer of psychology Wilhelm Wundt, William James and Herman Ebbinghans, before that period it existed as a branch of philosophy. Three most influential philosophers helped the growth and development of psychology such as Descartes and Locke and the scientist Charles Darwin.

Sports psychology is the application of psychological principles and ideas to sports situation. Vealey in Wuest and Bucher (2006) asserts that Sport and exercise psychology is a systematic scholarly study of the behaviors, feelings, and thoughts of people engaged in sports, exercise and physical activity.

Sport psychology is a branch of sport science and psychology applied to sportsmen/women in athletic situations. The discipline of sports psychology is associated with attempts to study individuals in sports situations, analyze and explain or described in order to modify, alter or predict behavior through various psychological means.

Determinants Of Sports Psychology Therapy

In many sport competitions different problems present themselves and may subsequently affect the athletes performance output. This issue arise from the following factors

- a. Personal factors
- b. Motivational factors
- c. Environmental factors

a. Personal Factors:

Personal factor is otherwise referred to as the personality of the athlete. Researchers have long been interested in personality factors and have investigated the effects of many different types of personality factors on performance (e.g.) extraversion-introversion, aggressiveness, independence, leadership and determination, e.t.c) in sport. Some researchers sought to address the question of whether sport influences personality, other researcher have investigated whether there were personality differences between athletes and non-athletes.

b. Motivational Factors:

Anxiety and Arousal

Many athletes have reported that their performance has been adversely affected by being too anxious or aroused for an athletic competition. As a result of this, various strategies have been developed to help them cope with Journal of Education and Practice 49 high level of anxiety or arousal. The goal of coaches, teachers, and sport psychologists is therefore to optimize an individual's performance. To achieve this goal they must consider the effects of anxiety as defined by Levitt (1980), as a subjective feeling of apprehension accompanied by a heightened level of physiological arousal. Physiological arousal is an autonomic response that results in the body. Examples of this phenomenon seen in athletes are sweaty hands, frequent urge to urinate, increased respiration rate, increased muscle tension, and elevated heart rate.

Goal-Setting

Goal-setting is important in many of the different environments in which physical education, and sports leaders' works. Goal-setting can be used to help students in schools physical, athletes, sports teams, clients rehabilitating an injury, or adults involved in fitness program. Goal-setting is important both as a motivational strategy and a strategy to change behaviour or enhance performance. It is also

used in intervention strategy to rectify problems or redirect efforts. According to Weinberg (2002) a goal is that which an individual is trying to accomplish. It is the object or aim of action.

c. Environmental Factors:

The environmental factors are factors directly related to the competitive situation, and are external to the athletes, such as the availability of team sports, eligibility, geographic restrictions, and sporting body organization structures, crowd, attitude of team mates' attitude of the coach.

Summary/Conclusion

Athletic situation usually encompasses, all the happenings in skills learning, practice and competition processes in relationship to performance environment. Each athlete is unique because of his individual characteristic which are different from others and he is treated as such in the field of sports psychology. Therefore the process of studying and assessing sports situations and the reaction, adaptation, tolerance and coping of the athlete with changes in the athletic environment affords the sports psychologists the opportunity to find solutions to the associated problems. The sports psychologist usually adopts or employs various psychological strategies, techniques and principles to enhance athletes out-put in competitions and help them to achieve their peak in the competitions.

Recommendations

1. There should be interventions involving stress management techniques, coping strategies and mobilization of social support through education
2. There should be total or maximum concentration on the task at hand and shifting out other distractions.
3. The athletes should be advised to practice mental and psychological skill training.
4. Athletes must develop sufficient concentration to exclude external variables (e.g. crowd) that may be negatively affect performance.
5. Faster rehabilitation of an injured athlete is recommended as this would help to achieve success in peak performance.
6. The athlete must achieve a mastery of the basic skills and this will help in the reduction of injury to the athlete.

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Social Development Of Students Participating In Physical Activity And Online Games Games

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Introduction

Social development is a balanced set of social skills and learned adaptive behaviors that enables an individual to interact well with other people, react positively and avoid behavior that has negative consequences. Cooperation, responsibility, empathy, selfcontrol and self-reliance are considered to be components of social development

(1). It is assumed that children without social development and required skills are unable to perform their duties while interacting with others .A child's game is a serious thing that happens in its mind, which is why its continuation is important, rather than the game itself, or its result.

2. A child wants to play and is not looking for the result of the game. Basically, the game is an activity that its process is important, not its result, and this is the main feature of a game

(3). Nowadays, the playing of computer games has replaced traditional games Computer games began with Pong in 1972 (a table tennis computer game). Improving the quality and variety of this games caused increasingly fast spreading of games in the media and in society, particularly among adolescents

(4). Computer games can have positive effects, such as the development of personality and behavior, talent growth, creativity development, attention and precision training, increasing IQ, expanding the outlook on the world, strengthening artistry, complex conceptual education, culture communication, etc.

(5). Stansbury (2004) found that participation in sports has a positive effect on the development of leadership and interpersonal skills of athlete students

(6). Since these games are the second most common form of entertainment after the television, those opposed to these games emphasize their negative effects, which include addiction to the games, increased expression of anger and aggression, spending a lot of money to buy them, and other negative physical and mental effects. It can be pointed out that the effect of said damage is much more than increased hand - eye coordination and other positive aspects

(7). Colwell and Payne (2000) in the study on 204 students of 10-14 years old, showed that although there was no direct relationship between social isolation and the games, there was a direct connection between aggressions and playing the computer games

(8). Goldstein (2006) reported some of the possible applications of computer games as follows: using computer games to measure and evaluate the performance, using computer games to practice cognitive and perceptual skills, regulation of physiological and biological indicators, and nourishment a sense of cooperation, and the use of computer games for entertainment Socialization and development of social skills, which start from the moment of birth, are affected by several factors, including the participation in sporting activities. The social function of physical education and sports education on the development and consolidation of social relations is a functional and basic infrastructure that has significant effects on the whole structure of society, social groups and individuals' relationships

(10). Participation in sports activities helps children's social behavioral development, which is necessary for their compatibility with the world around them, and it moves them towards socially acceptable and desirable criteria

(11). In contrast, children who are not exposed to physical experiences are less likely to learn social skills. So if an opportunity to practice and experience is not provided for them, they likely lose their interest and become dissociable

(12). Games for children, even if social opportunities exist, remain asocial

(13). Singer (2009) reported that sports and group activities, increase social skills such as responsibility, problem-solving skills, improved interpersonal relationships, decision making and the social development of the students

(14). Besides, team sports, with mutual roles that relate to each other in a realistic way, inspire self-confidence and self-control and a decrease in the feeling of boredom and fatigue

(15). In other words, sports team activities are effective on expression, creativity, curiosity and selfcontrol

(16). The results of Atashi (2008) showed that social maladjustment of athletic students is less than social maladjustment of non-athletic students.

Discussion And Conclusion

The purpose of this study was to compare the participation in sports activities and the playing of computer games with regard to the social development of students. The results of this study showed that the students that take part in physical activities have a higher social development than the students that play computer games. The exercise helps the increase of social skills and the prevention of social conflicts (17, 20). In sport and group activities, people learn to help others, consistency with the group, cooperation, forgiveness, dedication, independence, self-confidence, respecting the law, and friendship with others. In general, individuals' social growth will be developed through group activities including team sports. Exercise by communicating, modelling, reinforcing feedback, social and communication skills, preparation and motivation, emotional development, enhancing adaptability, and self-esteem effect the reinforcement of social development (21). Participation in sports and group activities causes an increase to social skills such as accountability, problemsolving skills, improved interpersonal relationships, decision-making and social development of students (20). The results of this study are inconsistent with studies of Colwell and Payne (2000) showed that there is no direct relationship between social isolation and computer games (8). It can be said that most research carried out on the role of computer games in the social development of adolescents has been conducted on the role of computer games clubs that are a place for young people to come together and finally meet and interact with each other thus meaning there is little effect on social development. Computer games clubs are social places and centers to develop friendships. Besides, going to game clubs represents an important aspect of the social life of adolescents. These clubs are a place to meet others, learn their behaviour and how to behave toward them.

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Role Of Sports In Achieving Sustainable Development

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Introduction

The enormous potential of sport, its global reach, its universal language, its impact on communities in general, and young people in particular, is a fact and is increasingly recognized around the world. The possibility to play and enjoy recreation and sport in a safe and healthy environment is a human right embedded in numerous international instruments such as the Convention on the Rights of the Child (CRC), the Convention on the Rights of Persons with Disabilities (CRDP) and the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). The fundamental role of Sport as a means to promote education, health, development and peace was re-emphasized in UN Resolution A/69/L.5 adopted by Member States on 16 October 2014. The resolution “encourages Member States to give sport due consideration in the context of the post-2015 development agenda”. The Synthesis Report of the UN Secretary General on the post-2015 Agenda also recognizes that sport plays a significant role in youth education and life-long learning and contributes to ensure healthier lives.

Sport As A Cost-Effective Tool For Development

The sport sector, which gathers millions of people, practitioners, and professionals from all ages across the five continents, has contributed significantly to the Millennium Development Goals (MDGs) and is looking forward to accelerating its efforts in within the post-2015 Development Agenda. The IOC recognizes that this Agenda is a historical opportunity to ensure that sport and physical activity are integrated as a meaningful and cost-effective tool to achieve the sustainable development goals. Founded on evidence-based research¹, the IOC, on behalf of the Olympic and sport movement, is globally advocating for the use of sport to

- promote health and the prevention of non-communicable diseases.
- achieve quality education through values-based learning.
- promote gender equality, including the empowerment of girls and women.
- promote sustainable cities and human settlements.
- contribute to peaceful and non-violent societies.
- develop human capital and human potential.

Sport's Contribution To Health

Physical activity is the third pillar of NCDs primary and secondary prevention, with recognized impact on cardiovascular disease, diabetes, cancer, hypertension, obesity, depression and osteoporosis³.

- Member States of the World Health Organization (WHO) have committed to reduce physical inactivity by 10% by 2025.⁴
- In China, India, the U.K., the U.S., Russia and Brazil alone, the cost of physical inactivity is estimated to have been more than US\$ 218 billion in 2008 and is projected to reach US\$ 302 billion in direct costs by 2030.⁵
- If prevalence of obesity continues to grow on its current trajectory, almost half of the world's adult population is projected to be overweight or obese by 2030.⁶ Evidence-based research demonstrates that sport and physical activity can positively contribute to numerous health issues:
- Sport produces beneficial effects on mental health, enhances self-esteem, helps to manage stress and anxiety, and alleviates depression.
- Sport offers multiple avenues to address health challenges and promotes good health for girls and women. It can provide an important venue to share critical health information and education and a safe and neutral space where women can discuss sexual and reproductive health issues and strategies to address them.
- Sport can be a valuable informational and educational platform for health and development messages targeted to youth and adults alike.

- Sport can be an effective way to reach out to people, especially youth, and to encourage healthy lifestyle behaviors that will help to protect them against HIV and other diseases.
- Sport can help reduce health-care costs and increase productivity, key issues in emerging economies.

Sport's Contribution To Education

Evidence-based research demonstrates that:

- Physical education, sport and learning activities in a playful format motivate children to enroll in school and promote school attendance as they are enjoyable and frequently not accessible outside the school environment.
- Sport and play activities can help improve learning performance and academic achievement.
- Sport fosters mental health and development in young people. The Contribution of Sport to the SDGs and the post-2015 development agenda – the IOC Position February 2015 Page 6/11
- Sport and physical education programs can promote a broad spectrum of life skills and values that build on individual capacity such as team-building, communication, decision-making, problem-solving, sense of community, self-esteem, personal responsibility, empathy, moral development, resilience, and improved inclination for educational achievement.
- Sport is a powerful vehicle to teach children and youth positive attitudes, values and moral strength.

Sport For Gender Equality And Girls And Women Empowerment

Access to sport is considered as an essential element in attaining rights and freedoms set out in several international human rights documents including the 1979 Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). The Beijing Platform for Action referred to sport and physical education as a mechanism to achieve three main objectives:

- to develop non-discriminatory education and training::
- improve physical and mental health;
- create opportunities for social interaction and friendship;
- increase girls' and women's self-confidence, and provide them with a sense of control over their bodies and their lives, encouraging them to delay sexual activity and reducing levels of teen pregnancy;
- provide incentives and support for girls to enroll in school, enhance school attendance and academic performance;
- help girls and women acquire transferable life-skills leading to increased employability
- empower girls and women with disabilities to acquire health information, skills, social networks, and leadership experience.
- help develop skills in management, negotiation and decision-making that empower women and girls to become leaders in the workplace, in the home and in all areas of community life; a survey of executive women found that 80% played sports in their youth; 69 % said sport contributed to their professional success.

Conclusion

The sport sector is undeniably a key partner in the planning and implementation of the next global development agenda. It shall continue to be recognized as an important contributor to a better and more peaceful world, in close partnership with governments and other members of civil society.

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Role of Yoga in Routine Life

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Abstract

Yoga in routine life is a system of practice consisting of eight levels of development in the areas of physical, mental, social and spiritual health. When the body is physically healthy, the mind is clear, focused and stress is under control. This gives the space to connect with loved ones and maintain socially healthy relationships. When you are healthy you are in touch with your inner Self, with others and your surroundings on a much deeper level, which adds to your spiritual health. The word "Yoga" originates from Sanskrit and means "to join, to unite". Yoga exercises have a holistic effect and bring body, mind, consciousness and soul into balance. The main goals of "Yoga in Routine Life" are Physical Health, Mental Health, Social Health, Spiritually Healthiness, Divine and self realization within us. These goals are attained by Love and help for all living beings, Respect for life, protection of nature and the environment, A peaceful state of mind, Full vegetarian diet, Pure thoughts and positive lifestyle, Physical, mental and spiritual practices, Tolerance for all nations, cultures and religions. Yogic techniques are known to improve one's overall performance. Pranayama is an important, yet little known part of Yoga. Until recently, this art and science of yogic breathing was almost completely unknown to the common man like many other ancient Indian arts. Pranayama techniques act to purify the nadis including these three main energy channels. Daily Life is a system of practice consisting of eight levels of development in the areas of physical, mental, social and spiritual health. When the body is physically healthy, the mind is clear, focused and stress is under control. This gives the space to connect with loved ones and maintain socially healthy relationships. When you are healthy you are in touch with your inner Self, with others and your surroundings on a much deeper level, which adds to your spiritual health.

Keywords:- Health , life , physical , asanan , Pranayama

Yoga has been emphasized that each exercise be practiced slowly, coordinating movement with the breath, pausing motionless in each position and always with full concentration. It increases the flexibility of the spine, improves body's physical condition and heightened awareness to the importance of relaxation.

Yoga teaches you to focus on breathing while you hold the poses. This attention to breath is calming it dissolves stress and anxiety. Yoga can help cure insomnia, as regular yoga practice leads to better and deeper sleep. Yoga can help fight fatigue and maintain your energy throughout the day. Yoga is an effective treatment for a variety of autoimmune diseases because it can reduce the symptoms these diseases often cause, such as stiffness, malaise, fatigue, and weakness. Even children can benefit from yoga. Those with attention deficit disorder and hyperactivity can learn to relax and get control by using yoga breathing and yoga asanas. Yoga has been used to help heal victims of torture or other trauma. Because yoga is a form of meditation, it results in a sense of inner peace and purpose, which has far-reaching health benefits.

Mentally Consciousness and Soul

To live in harmony with oneself and the environment is the wish of every human. However, in modern times greater physical and emotional demands are constantly placed upon many areas of life. The result: more and more people suffer from physical and mental tension such as stress, anxiety, insomnia, and there is an imbalance in physical activity and proper

Exercise.

This why of methods and techniques for the attainment and improvement of health, as well as physical, mental and spiritual harmony, are of great importance, and it is exactly in this respect that "Yoga in Daily Life" comprehensively offers an aid to help one's self. Throughout the many years that I have been active in western countries, I have become familiar with the modern lifestyle and the physical and psychological problems faced by the people of today. The knowledge and experience I gained led me to develop the system of "Yoga in Daily Life". It is systematic and graduated, integrating all areas of life and offering something valuable for each phase of life. Regardless of age or physical constitution, this system opens the classical path of Yoga to all. In developing this system to accommodate the needs of today's people, much consideration was given to the conditions within modern society, without losing the originality and effect of the ancient teachings.

The word “Yoga” originates from Sanskrit and means “to join, to unite”. Yoga exercises have a holistic effect and bring body, mind, consciousness and soul into balance. In this way Yoga assists us in coping with everyday demands, problems and worries. Yoga helps to develop a greater understanding of our self, the purpose of life and our relationship to God. On the spiritual path, Yoga leads us to supreme knowledge and eternal bliss in the union of the individual Self with the universal Self. Yoga is that supreme, cosmic principle. It is the light of life, the universal creative consciousness that is always awake and never sleeps; that always was, always is, and always will be.

Many thousands of years ago in India, Rishis (wise men and saints) explored nature and the cosmos in their meditations. They discovered the laws of the material and spiritual realms and gained an insight into the connections within the universe. They investigated the cosmic laws, the laws of nature and the elements, life on earth and the powers and energies at work in the universe - both in the external world as well as on a spiritual level. The unity of matter and energy, the origin of the universe and the effects of the elementary powers have been described and explained in the Vedas. Much of this knowledge has been rediscovered and confirmed by modern science.

These are experiences and insights a far-reaching and comprehensive system known as Yoga originated and gave us valuable, practical instructions for the body, breath, concentration, relaxation and meditation. The practices that this book offers have therefore already proven themselves over thousands of years and have been found to be helpful by millions of people.

The system “Yoga in Daily Life” is taught worldwide in Yoga Centres, Adult Education Centres, Health Institutions, Fitness and Sports Clubs, Rehabilitation Centres and Health Resorts. It is suitable for all age groups - it requires no “acrobatic” skills and also provides the unfit, as well as handicapped, ill and convalescent people, the possibility of practicing Yoga. The name itself indicates that Yoga can be and should be used “in Daily Life”.

The exercise levels were worked out in consultation with doctors and physiotherapists and can therefore with observation of the stated rules and precautions be practiced independently at home by anyone. “Yoga in Daily Life” is a holistic system, which means it takes into consideration not only the physical, but also the mental and spiritual aspects. Positive Thinking, perseverance, discipline, orientation towards the Supreme, prayer as well as kindness and understanding form the way to Self-Knowledge and Self-Realization.

Chief objectives of “Yoga in Routine Life” are:

- Physical Health
- Mental Health
- Social Health
- Spiritual Health
- Self- Realization or realization of the Divine within us

These goals are attained by:

- Love and help for all living beings
- Respect for life, protection of nature and the environment
- A peaceful state of mind
- Full vegetarian diet
- Pure thoughts and positive lifestyle
- Physical, mental and spiritual practices
- Tolerance for all nations, cultures and religions

Fundamental Importance of Physical Health

The health of the body is of fundamental importance in life. As the Swiss-born Physician, Paracelsus, very correctly said, “Health isn’t everything, but without health everything is nothing”. To preserve and restore health there are physical exercises (Asanas), breath exercises (Pranayama) and relaxation techniques. Within “Yoga in Daily Life” the classic Asanas and Pranayamas are divided into an eight-level system, beginning with “SarvaHitaAsanas” (meaning, “Exercises that are good for everyone”). Seven other parts follow this preparatory level and lead progressively through the practice of Asanas and Pranayamas. Several special programs have been developed from the basic exercises: “Yoga for Back Pain”, “Yoga for Joints”, “Yoga for Seniors”, “Yoga for Managers” and “Yoga for Children”. To maintain good health, other valuable exercises within “Yoga in Daily Life” are the purification

techniques of Hatha Yoga. These involve Deep Relaxation (Yoga Nidra), Concentration Exercises (e.g. Trataka) as well as Mudras and Bandhas (special Yoga techniques).

An even greater factor in the maintenance of good health is the food we eat. What we eat influences both our body and psyche - our habits and qualities. In short, the food we eat has an effect upon our whole being. Food is the source of our physical energy and vitality. Balanced and healthy foods include: grains, vegetables, pulses, fruit, nuts, milk and milk products, as well as honey, sprouts, salads, seeds, herbs and spices - either raw or freshly cooked. Foods to be avoided are old, reheated or denatured foods, meat (including all meat products and fish) and eggs. It is also best to avoid alcohol, nicotine and drugs as these rapidly destroy our health.

Intellectual Health and Senses

Generally, we are led through life by the mind and senses, rather than having these under our control. However, to gain control of the mind, we must first place it under inner analysis and purify it. Negative thoughts and fears create an imbalance in our nervous system and through this our physical function. This is the cause of many illnesses and sorrows. Clarity of thought, inner Freedom, contentment and a healthy self-confidence are the basis for mental wellbeing. That is why we strive to gradually overcome our negative qualities and thoughts and aim to develop positive thoughts and behavior.

“Yoga in Daily Life” offers numerous methods to attain mental wellbeing: Mantra practice, the observance of ethical principles, the keeping of good company and the study of inspiring texts to purify and free the mind. An important tool in self-investigation and self-knowledge is the technique of “Self-Inquiry Meditation”, a step-by-step meditation technique of Self-Analysis. In this meditation practice we come into contact with our subconscious, the source of our desires, complexes, behavioral patterns and prejudices. The practice guides us to become acquainted with our own nature - as we are and why we are so - and then beyond self-acceptance to Self-Realization. This technique enables us to overcome negative qualities and habits and helps us to better manage life’s problems.

Social Importance

Man must be concrete among the society. Social health is the ability to be happy within oneself and to be able to make others happy. It means to nurture genuine contact and communication with other people, to assume responsibility within society and to work for the community. Social health is also the ability to relax and experience life in all its beauty. One of the growing problems of our times is drug addiction. It is a clear sign of social illness. The system of “Yoga in Routine Life” can assist in overcoming this illness and grant people a new, positive aim and purpose in life. The importance of keeping good, positive company has a great influence upon our psyche, as such companionship moulds and forms our personality and character. Positive company is of great importance in spiritual development. Living “Yoga in Routine Life” means to work for ourselves and for the benefit of others. To do valuable and constructive work for our neighbours and the community, to preserve nature and the environment and work for peace in the world. To practice Yoga means to be active in the most positive sense and to work for the welfare of all of mankind.

Spiritually Healthiness

The main principle of spiritual life and the highest precept of mankind are:

AHIMSA – PARAMO- DHARMA

This precept embraces the principle of non-violence, in thought, word, feeling and action. Prayer, meditation, Mantra, positive thinking and tolerance, lead to spiritual health. Humans should be protectors, not destroyers. Those qualities that really make us human are the ability to give, understand and forgive. To protect life and respect the individuality and independence of all forms of life is a primary practice of the Yoga teachings. By following this precept greater tolerance, understanding, mutual love, help and compassion develops - not only between individuals, but between all humans, nations, races, and religious faiths.

Divine and Self Realization

Cultivate indomitable will. Practice self-control and self-mastery. Have self-confidence. Develop independent judgment. Do not argue. Strive ceaselessly for Self-realization. Kill this little ego. Develop pure love. Rise above all distinctions of caste, creed and colour. Give up the idea of ‘I-ness’, ‘Mine-ness’. Look within for the happiness which you have sought in vain in the sensual objects. Moksha is the summum bonum of life. It is freedom from births and deaths. It is not annihilation. It is annihilation of this little ‘I’. It is obtained through knowledge of the Self. You will have to know the Truth through

direct intuitive experience. You will have to cut asunder the veil of ignorance by meditation on the Self. Then you will shine in your pristine purity and divine glory.

Do not try to drive away the unimportant and irrelevant thoughts. The more you try, the more will they return and the more strength will they gain. You will only tax your energy and will. Become indifferent. Fill the mind with divine thoughts. The others will gradually vanish. Get yourself established in Nirvikalpa Samadhi through meditation. Without perfect Brahmacharya, you cannot have substantial spiritual progress. There is no half measure in the spiritual path. Control the body first. Then purify your thoughts through prayer, Japa, Kirtan, Vichara and meditation. Make a firm resolve, "I will be a perfect Brahmachari from today." Pray to the Lord to give you spiritual strength to resist the temptations of life and kill lust.

Constant study of the lives of saints will enable you to lead a virtuous life. You will imbibe very noble qualities. You will be gradually moulded in the spiritual path. You will draw inspiration from them. There will be an inner urge in you to attempt for God-realization. Pray to the Lord that you may become a saint.

Yogic Techniques of Pranayama

Yogic techniques are known to improve one's overall performance. Pranayama is an important, yet little known part of Yoga. Until recently, this art and science of yogic breathing was almost completely unknown to the common man like many other ancient Indian arts. Those who knew it used to be very reluctant to share their knowledge and experience with anyone, unless a student proved by tests that he was ready to receive it.

"Tasmin sati swaspraswas yogartivich Pranayama"

This having been (accomplished) "Pranayama" which is control of inspiration and expiration the inspiration of prana-vayuisswasa and expiration is prashwasa and the cessation of both is characteristic of Pranayama. Patanjali in his Yoga Sutra describes – Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi as eight angas(parts) of Yoga. Amongst them, in the present materialistic world, the third and fourth part, Pranayama and Asana (Postures) are considered as very important part and prescribed by modern medicine too. The beneficial effects of different Pranayama are well reported and has sound scientific basis. 2-3 There is reported evidences of Pranayama that it increases chest wall expansion and lung volumes.

The ancient sages also discovered that among the thousands of nadis there are three which are the most powerful energy channels and, when purified enough, these can promote the development of the human being in all three planes: physical, mental and spiritual, allowing us to reach higher levels of consciousness. These channels are called IDA, PINGALA and SHUSHUMNA nadis. Pranayama techniques act to purify the nadis including these three main energy channels. Yogis discovered a long time ago that breathing through the left nostril stimulates the IDA nadi or the "moon channel" (connected with the parasympathetic nervous system) and breathing through the right nostril stimulates the PINGALA nadi or the "sun channel" (connected with sympathetic nervous system). By balancing the functioning of both nadis (that is, both aspects of the autonomic nervous system) we can stimulate the main energy channel called SHUSHUMNA and harmonize the activity of the nervous system as a whole.

Conclusion

To conclude the fundamental principle of "Yoga in Routine Life" is religious freedom. Yoga is not a religion - it is the source of spirituality and wisdom, the root of all religions. Yoga transcends religious boundaries and reveals the way to unity. "Yoga in Daily Life" offers the spiritual aspirant guidance on life's path through the practices of Mantra Yoga and Kriya Yoga. As the most highly developed beings upon earth, humans are capable of realizing their real nature and inner Self, God. The spiritual goal of Yoga is God-Realization, the union of the individual soul with God. The realization that we are all one in our common root and connection to God is the first step. Decisions regarding your health and Wellbeing and a free, happy life, are in your hands. Practice regularly with firm determination and success will be certain.

I wish all Yoga practitioners and those still to become practitioners much happiness, success, health, harmony, joy in life and God's blessing.

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Effect of Exercise Program on Cardiovascular Endurance of Mentally Challenged children of Nashik City

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Abstract-

In today's scenario, society has increased awareness and concern for health and fitness. There are many studies that have been done in India on general population on health and fitness but mental retardation has been excluded from this, and its association with physiological and psychological benefits. In special school the physical activity largely focusing on recreation purpose not much on health related fitness. Mental Retardation refers to significantly sub average general intellectual functioning, resulting in or associated with concurrent impairments in the adaptive, and manifested during the development period. For this study 30 mild and moderate mentally retarded respondents selected as sample for the assessing the cardiovascular endurance and training program was implemented for 3 days a week for six months and post test was conducted at the end. The study shows the improvement in cardiovascular endurance as an effect of training program.

Key word- Cardiovascular Endurance, Mental Retardation, Exercise Program

Introduction –

The benefits of exercise are universal for all children, including those with disabilities. The participation of children, including those with disabilities in sports and recreational activities promotes inclusion, minimize reconditioning, optimum physical functioning, and enhances overall well being. Despite these benefits, children with disabilities are more restricted in their participation, have lower level of fitness, higher level of obesity than peers without disabilities. In today's scenario, society has increased awareness and concern for health and fitness. There are many studies that have been done in India on general population on health and fitness but mental retardation has been excluded from this, and its association with physiological and psychological benefits. In special school the physical activity largely focusing on recreation purpose not much on health related fitness. Mental Retardation refers to significantly sub average general intellectual functioning, resulting in or associated with concurrent impairments in the adaptive, and manifested during the development period.”

A review of research studies indicates one of the most popular form of exercise program done by school children are aerobics exercise that includes walking, jogging and running. The benefit of aerobic exercise has been widely documented.

The primary goal for increasing fitness in children with disabilities is to have regular physical activity that is essential for the maintenance of normal muscle strength, flexibility and joint structure and function or overall health and that may slow the functional decline often associated with disabling conditioning. Through the research physician's recommended physical activity for mentally retarded children along with other children. But it must take into account with child size, coordination, and level of physical fitness, physical maturity, physical health and motivation. It is well known that children with mental disability have isolation problems in society that leads to their physical inactivity. There is a need of exercise for mentally challenge, and all the behavioural ramifications that coexist with this condition. Several studies have demonstrated that the people with disability respond to exercise and improved the fitness. American College of Sports Medicine recommends at least 20 min. of aerobic exercise three times a week for the development and maintenance of cardio vascular fitness and two sessions of resistance training for minimal muscular strength and muscular endurance. Cardiovascular fitness is one of the most important components, as it helps to continue or persist in strenuous activity involving large muscle groups for extended period of time. VO_2^{\max} is one of the main assessment factor for cardiovascular endurance, VO_2^{\max} refers to the maximum amount of oxygen that an individual can utilize during intense or maximal exercise. It is measured as "milliliters of oxygen used in one minute per kilogram of body weight.

Hypothesis –There is no effect of exercise program on cardiovascular endurance of mentally challenged children

Objective-

- To study the effect of exercise program on Cardiovascular endurance (VO₂) of mentally challenged respondents

SAMPLE SIZE-

The present study was conducted on Mentally Retarded Children of Prabodhani Vidya Mandir to see the effect of training on cardiovascular endurance. For this study 30 mild and moderate mentally challenged respondents between the age group of 16-17 years had been selected from Prabodhani Vidya Mandir Nasik.

Methodology-

Pre test was conducted on the respondents to measure the cardiovascular endurance through beep test and VO₂ max. was calculated through the formula, the exercise program was implemented for six month, three days in a week and post test was administered.

Exercise Program -

Day Time	Component of fitness	Mode of Training	Rep./
Monday	Cardiovascular Endurance	Aerobics on music	45min
Wednesd ay	Strength & flexibility	Lunges,squats,knee extension, Surya Namaskar	45 min.
Friday	Cardiovascular Endurance	Minor games	45 min.

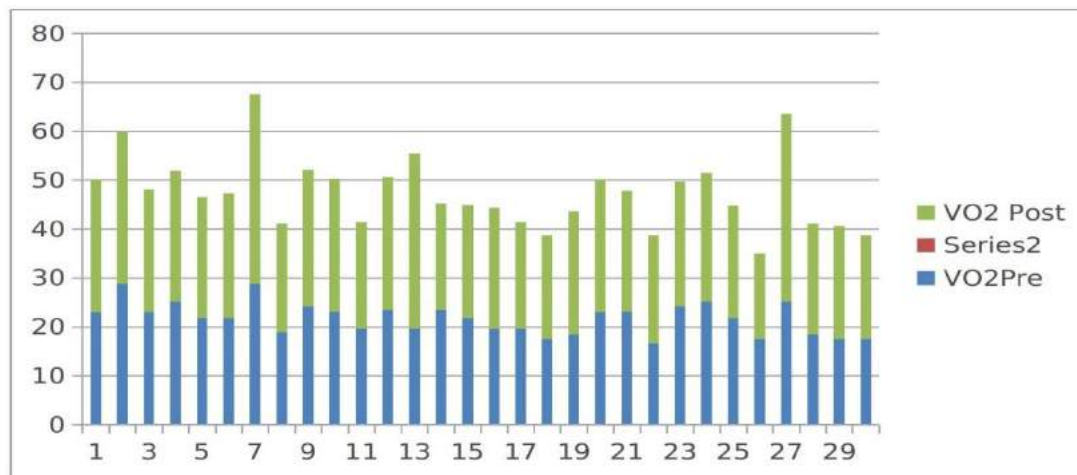
Note- 10 min. Warm up and 5min. Cool down was conducted during the each session.

Result And Discussion-

Table 1.- Descriptive Analysis of Pre and Post test

	Pre Test VO ₂	Post Test VO ₂
Mean	21.71	25.7
Variance	10.52878	23.87517
Observations	30	30df
50		
Calculated Value	3.722771	
Table Value	2.403272	

Graph 1 Showing the Pre and Post test Comparison



Findings:

1. Table 1 indicates descriptive analysis of pre and post VO2 max. of 30 mentally challenged respondents of Nasik District. It shows that the mean values of post VO2 max. of all respondents are higher than the pre test value.
2. As shown in the above table that t calculated value is 3.7227 and table value is 2.40 hence, t calculated value > t table value. So, the null hypothesis is rejected. It shows that there is improvement in VO2 max. of the respondent after the six month of training program.
3. Graph 1 indicates the comparison of the pre and post test VO2 max. of the 30 mentally challenged respondents of Nasik District. before and after the training program.

Conclusion: It was interpreted from the above study that:

1. Cardiovascular fitness VO2 max of mentally challenged respondents was enhanced through the proper exercise program.
2. It helps the respondent to maintain the good health and maintain the proper body weight.

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Anaerobic Fitness Testing

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Introduction:

Life styles affect people's health, with their day today activities, their eating habits and regular physical activity. In today's stressful world Physical fitness is very much important, physically fit person can execute his or her work in a proper manner. Physical fitness is "a set of attributes that people have or achieve relating to their ability to perform physical activity (Howly and Franks, 1997). Physical fitness is the ability to last, to bear up, to withstand stress and to persevere under difficult circumstances where an unfit person would give up. The American College of Sports Medicine (ACSM) has defined health related physical fitness as "a state characterized by an ability to perform daily activities with vigor and demonstration of traits and capacities that are associated with low risk of pre mature development of the hypo-kinetic disease (i.e. those associated with physical inactivity)". Health related physical fitness consists of those components that have a relationship with good health. The components are commonly defined as a body composition, cardio vascular fitness, musculo skeletal fitness (flexibility, muscular endurance and muscular strength).

Life style and aerobic activities are effective in promoting health benefits. Aerobic and anaerobic activities are effective in developing physical fitness and enhancing performance in sports and other activities. Anaerobic exercise is especially useful for building anaerobic fitness. Physical fitness consists of two type fitness: Aerobic fitness and Anaerobic fitness. Aerobic fitness is known as the maximum capacity to consume oxygen at the cellular level. It is regarded as the single best measurement of cardiovascular endurance. Anaerobic activity is the ability of the organ to perform an activity in the absence of oxygen. The muscles demand for oxygen much more but the circulatory system cannot arrange oxygen supply to that extent immediately. The muscles however continue their function for a short period by bypassing the aerobic energy system.

Anaerobic fitness depends on the following factors:

- ATP and CP store in the body,
- Lactic acid tolerance
- Vo₂ Max
- Buffer capacity

Anaerobic Energy System

The anaerobic energy system synthesizes ATP without oxygen and is utilized for high intensity – short duration activities (weight lifting). It produces ATP within the muscles, cytoplasm but outside the mitochondria through a process called anaerobic glycolysis. When exercise intensity becomes extremely high, the cardio vascular systems can no longer supply and adequate amount of oxygen to sustain anaerobic energy production. The anaerobic energy system therefore becomes the dominant supplier of ATP. The primary fuel source for Anaerobic glycolysis is glucose. Limited quantities are stored in the form of glycogen in both the liver and muscle tissue and are utilized whenever required.

Anaerobic Activity:

Anaerobic activity can be described as an exercise of high intensity that the individual is unable to sustain the work for longer than three minutes. Resistance training is the principle form of anaerobic exercises. This type of training involves exercising with progressively heavier load for the purpose of strengthening the musculo-skeletal system. Specifically increases can be seen in muscle fiber, force of muscular contraction density of bone tissue, ligament and tendon strength.

Benefit of resistance training:

Physical capacity increases – this due to increase in muscular strength and muscular endurance.

Enhanced body composition – this is due to an increase in lean body mass and reduction of fat.

Improve metabolic function – increase in lean mass increases the body's metabolic rate. Therefore, fat is metabolized more rapidly.

Injury prevention – muscle act as shock absorbers, the stronger they are the more they can help dissipate shock from weight bearing activities.

Factors that affect resistance training:

- **Gender:** Male \have more muscle tissues than females when the lower body of men and women is evaluated, men and women demonstrate similar strength performance.
- **Age:** Rate of strength gain appears to be greatest between the age of 10-20.
- **Limb length:** People with short limb length may use more resistance due to favorable leverage factor that enhance force output.
- **Muscle Length:** people with long muscles have a greater potential for developing size and strength.
- **Muscle Fiber type:** It is genetically determine that people with high percentage of slow twitch
- Fibers have enhanced cardiovascular endurance potential while those with a high percentage of fast twitch fibers have an enhanced strength potential.

Anaerobic Fitness Testing:

Anaerobic Fitness Testing is not a common practice but few organizations have recommended testing and goal setting a basic training procedure. Muscular strength and muscular endurance define from specific testing can be a tremendous benefit when designing a strength or muscular hypertrophy programme. Fitness base lines have motivational value when compared with subsequent tests demonstrating increases in strength and muscle size.

When performing anaerobic testing the body is divided into four major muscle groups which can be tested separately, they are as follows:

1. **Anterior Shoulder Girdle:** Muscles of the chest, shoulders and arms.
2. **Posterior Shoulder Girdle:** Muscle of back, shoulder and arms.
3. **Trunk:** Muscles of anterior, lateral and posterior mid section.
4. **Locomotors:** Muscles of Hips and Legs.

For a better physical appearance and good posture people need to concentrate on their abdominal fitness and there are different abdominal exercises that people practice. There are several easy ways to test the abdominal strength.

Testing Upper Abdominal Strength:

The upper wall Abdominal Curl Test is conducted in three phases:

Protocol for Upper Abdominal Strength Test: it is similar to an abdominal crunch or curl. In this test the person has to lay supine, knees flexed, and soles flat on the testing surface, heels 12" from the gluteus.

Initial Phase: Raise the head and shoulders of the test surface by flexing the lumbar spine while maintaining a neutral supine at the cervical and thoracic region. Keep the lower back flat, hands and arms should be fully extended at 45 degrees from the testing surface. The person has to raise themselves until the lower angle of their scapular clears the testing surface.

Second Phase: Repeat the curl up; clearing the scapula from the surface while the arms are folded across the chest.

Third Phase: repetition of the former phase- place the finger tips at the temples with elbows flexed and upper arm at the right angle to the body.

Norms for Upper Abdominal Strength Test:

Initial phase: Arms straight out with 60 % of the scapula off the surface –Fair score

Second phase: Arms crossed over the chest 80% of the scapula off the surface- Good score

Third Phase: Finger tips at the temple with 100% of the scapula off the surface-Excellent Score

Source: Adapted and modified from the Muscle Testing and Function (4th ed.) F. P. Kandel (1993).

Testing Lower Abdominal Strength:

The lower abdominal test is performed in supine position where the person has to maintain a slight pelvic tilt while keeping the lumbar vertebrae in contact with the surface.

Protocol for Lower Abdominal Strength Test: the person has to lie in supine position with arms extended at side: head on testing surface, raising the legs in a fully extended at a right angle to the testing surface.

The person who is performing this test has to keep the hip in an anterior tilt position while using the hip flexors to lower the legs in a controlled eccentric contraction. The points at which the lumbar vertebrae break the test surface determine the score.

Norms for Lower Abdominal Strength Test:

Result	Score
Legs between 0-15 degrees	: Poor
Legs between 16-30 degrees	: Fair
Legs between 31-45 degrees	: Average
Legs between 46-60 degrees	: Good
Legs between 61-75 degrees	: Very Good
Legs between 76-90 degrees	: Excellent

Source: Adapted from Muscle Testing and Function: F.P. Kendal (1993)

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Importance of Yogic Exercises in Our Daily Life**Sanjay Kokate**Assi. Prof.,
Dr. PDKV, Akola**Abstract**

Yoga is becoming popular all over the world in the recent past. Irrespective of gender, age, economic status, religion, and nationality, people are being attracted towards the practice of Yoga. Indian traditional texts claim that, being a holistic science, the scope of yoga is vast and besides ensuring physical fitness, it is for the internal bliss and external coherence. They also claim that yoga ensures emotional wellbeing and the practitioner becomes calm and serene. There are significant differences between yoga and physical exercises in terms of scope of practice, method of practice and the effects thereof.

Yoga is a multifaceted spiritual tool with enhanced health and well-being as one of its positive effects. The components of yoga which are very commonly applied for health benefits are asanas (physical postures), pranayama (regulated breathing) and meditation. In the context of asanas, yoga resembles more of a physical exercise, which may lead to the perception that yoga is another kind of physical exercise.

Yoga may have potential to be implemented as a beneficial supportive/adjunct treatment that is relatively cost-effective, may be practiced at least in part as a self-care behavioral treatment, provides a life-long behavioural skill, enhances self-efficacy and self-confidence and is often associated with additional positive side effects. This research paper aims at exploring the benefits of yoga in the form of exercise terms of concepts, possible mechanisms and effectiveness for good health and fitness.

Introduction :

Yoga in Daily Life is a system of practice consisting of eight levels of development in the areas of physical, mental, social and spiritual health. Though yoga is growing in popularity across many countries, all over the world, many times yoga is confused and wrongly equated with physical exercises (PE). However, there are some differences between them in terms of the scope, method of practice, and the effects concerned [1]

Yoga had its origin in India and has been a common, popular form of exercise for thousands of years [2]. Yoga is defined to mean “union’ of the mind, body and spirit”, or the “science of the mind [3].” It has grown in popularity in the last 50 years at International level, and it continues to grow. It is often considered an exercise that influences the mind in addition to the body. Therefore, yoga, in theory, could improve self-esteem. Good health is the birth right of all human being, Exercise and yoga (pranayama) are the keys to attain sound health and sound mind. Total health should include physical, mental and social well being.

We are well acquainted with the word ‘Exercise’ which means physical activity carried out for the sake of health and fitness.

Exercise is the key to attain sound health and sound mind. Total health should include physical, mental and social well being. We are well acquainted with the word ‘Exercise’ which means physical activity carried out for the sake of health and fitness. Exercise can be done physically, can be Aerobic type, can be done on Physical instruments or is in the form of Yoga.[7][11][12]

Background and Overview

The word “Yoga” originates from Sanskrit and means “to join, to unite”. Yoga exercises have a holistic effect and bring body, mind, consciousness and soul into balance. In this way Yoga assists us in coping with everyday demands, problems and worries. Yoga helps to develop a greater understanding of our self, the purpose of life and our relationship to God. On the spiritual path, Yoga leads us to supreme knowledge and eternal bliss in the union of the individual Self with the universal Self. Yoga is that supreme, cosmic principle. It is the light of life, the universal creative consciousness that is always awake and never sleeps; that always was, always is, and always will be.

Many thousands of years ago in India, Rishis (wise men and saints) explored nature and the cosmos in their meditations. They discovered the laws of the material and spiritual realms and gained an insight into the connections within the universe. They investigated the cosmic laws, the laws of nature and the elements, life on earth and the powers and energies at work in the universe - both in the external world as well as on a spiritual level. The unity of matter and energy, the origin of the

universe and the effects of the elementary powers have been described and explained in the Vedas. Much of this knowledge has been rediscovered and confirmed by modern science.

These are experiences and insights a far-reaching and comprehensive system known as Yoga originated and gave us valuable, practical instructions for the body, breath, concentration, relaxation and meditation. The practices that this book offers have therefore already proven themselves over thousands of years and have been found to be helpful by millions of people

Yoga sutras are considered to serve as the basis of the yogic techniques. Mahararishi Patanjali, "The father of Yoga" compiled 195 sutras, which serve as a framework for integrating Yoga into the daily routine and leading an ethical life. [4][5] They were written somewhere around 200 BC. Yoga includes Yoga postures or Asana's that stipulate the flow of prana throughout the body. Forward bending postures, twisting postures inverted, balancing and meditational postures form useful asanas. Surya Namaskar is a good example of asanas.

Today we forgot to perform yoga for health though number of yogi's advocated Patanjali Yogsutra, Hatha Yoga.[4][6] In the same way the Asanas are improving our body fitness by practicing Yogasanas we can develop strength, suppleness, flexibility concentration, balance etc. Hence we all the people must practice Yogasanas and pranayam, because there is no age limit for performing 'Yoga'. [7]Yoga can be performed at any age by both the sex, only ladies must take care at the time of their pregnancy to avoid some of the 'Asanas'.

Benefits of yoga

1. Better posture

Yoga helps in keeping the spine erect, enabling you to sit straight and not slouch.

2. Improved bone health

Many postures in yoga require you to lift your own weight which helps in making the bones stronger and helps ward off osteoporosis.

3. Increased blood flow

The inverted and twisting nature of Yoga poses wring out the venous blood from the internal organs and allow oxygenated blood to flow.

4. Improved heart health

When you practice Yoga regularly, you get your heart into the aerobic range. This not only lowers the risk of heart attack but also relieves depression.

5. Lowered blood pressure

The savasana (corpse pose) helps people with hypertension. This pose is said to be have resulted in great improvement in people with high blood pressure.

6.Improved balance

Yoga involves focusing on holding postures for extended periods of time. This helps in improving your body balance and developing muscle tone.

7. Relaxation and sleeping aid

Yoga can help you relieve the stress of modern life and helps you sleep deeper. Yoga encourages you to relax and slow your breath and to focus on the present. It shifts your focus from sympathetic nervous system to parasympathetic nervous system. Restorative asanas and meditation also encourage a turning inward of the senses, which relaxes the nervous system.

8. Improved lung health

Yoga draws attention to your breathing pattern and makes you aware of breathing correctly which filters the air, warms it and humidifies it removing the pollen and the dirt, supplying fresh oxygen into the lungs.

9. Reduced digestive problems

Yoga like any other physical exercise can ease constipation and lower the risk of colon cancer. The movements that Yoga involves, improve the transport of food and remove waste through the bowels. This helps in getting rid of the waste from the system more effectively.

10. Eases your pain

Yoga can ease your pain and help people who suffer from arthritis, back pain and other chronic conditions. When you relieve pain, you're in a much better mood and are inclined to be more active.

Some Yogic Exercises for Good Health and Fitness**1. Bhastrika Pranayam**

It helps in heart, lungs, brain, depression, migraine, paralysis, neural system. Increase aabha. [7][12]

2. Kapal Bhati Pranayam

It Increases aabha and tej. Helps in obesity, constipation, gastric, acidity, Croesus, hepatitis B, uterus, diabetes, stomach problems, cholesterol, allergic problems, asthma, snoring, concentration, and even cancer and AIDS. [7][12]

Bahaya Pranayam

It is Helpful for stomach (udar), hernia, urinal, uterus

Anulom Vilom Pranayama

It is helpful for heart, high BP, heart Blockage, vat-cuf-pit, arthritis, cartilage, bent ligaments, sinual fluid reduced, Parkinson, paralysis, neural related, depression, migraine pain, asthma, sinus, allergy. [7][12]

3. Bhramri Pranayama

The benefits of this exercise is that it relieves tension, hypertension, high BP, heart blockage, paralysis, migraine pain, confidence, concentration. [7][12]

4. Udgeeth Pranayama or Omkarjap

This exercise is mainly perform for meditation, peace of mind and relaxation.

5. Ujjayi Pranayama

This exercise raise body heat, the sound vibrations calm and focus the mind, letting you relax more. Lower blood pressure and slow heart rate. Effectively used for pain reduction, insomnia, and migraines. [7][12]

6. Agnisar Pranayam OR Nauli kriya

This exercise prevents all abdominal ailments. Eliminates constipation by encouraging intestinal periatalsis. Keeps sexual organs in good condition and prevents sexual disorders. [7][12]

Conclusion-:

Thus Yogic exercise could potentially improve posture and self esteem Yoga and certain asanas have positive and useful effect on certain heart disease risk factors viz, Hypertension, Pericarditis, Myocarditis, Endocarditis and Coronary Heart Diseases, Heart attack, Strokes Ischemic Heart Disease and Hyper Lipidemia etc. Yoga therapy offered additional benefits to the standard medical care of Heart patients by improving quality of life It is notable that exercise and yoga are preceded by warm up process through micro-exercises. Micro-exercises are adopted during yoga when we feel the use of interval.

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Various Aspects of safety and First aid in Sports injury**Manjushri Deshmukh**Assi. Prof.,
Dr. PDKV, Akola**Introduction**

We all know that when any person fall ill or are injured, we take him to hospitals or doctors for treatment. But it takes time to reach them, during which if some initial care is taken, it helps treatment of such individuals and in many cases saves their lives. We also know that some of the minor illnesses or injuries are cured by taking such initial care. However, this care cannot be taken unless we are aware and trained in first-aid. Accidents happen, especially during sports. While it may be possible to limit the number and severity of injuries with prevention strategies, one wrong step or a collision on the field can result in a sudden and painful injury. The physicality of sport means that injury is an ever-present danger. In lines of work where you are responsible for athletes or sports players, it may be inevitable that you will have to deal with an injury at some point in the future. When this happens, you need to be prepared to act quickly. Ideally, you will have access to a well-stocked first aid kit or have medical help nearby.

What Does First Aid Mean?

First aid is the provision of initial care for an illness or injury. It is usually performed by a non-expert person to a sick or injured person until appropriate medical treatment can be accessed in a hospital or by going to a doctor. Certain self-limiting illnesses or minor injuries may not require further medical care after the first aid intervention. It generally consists of a series of simple and in some cases, potentially life-saving techniques that an individual can be trained to perform with minimal equipment. The First aid training, therefore, is of value in both preventing and treating sudden illness or accidental injury and in caring for large number of persons caught in a natural disaster. It is a measure both for self help as well as for the help of others.

Self-help

If you, as a first-aider, are prepared to help others, you are better able to care for yourself in case of injury or sudden illness. Even if your own condition keeps you from caring for yourself, you can direct others in carrying out correct procedures to follow on your behalf.

Help for Others

Having studied first-aid, you are prepared to give others some instruction in first-aid, to promote among them a reasonable safety attitude and to assist them wisely if they are stricken. There is always an obligation on a humanitarian basis to assist the sick and the helpless. There is no greater satisfaction than that resulting from relieving suffering or saving a life.

Sports injuries

Sports injuries are injuries that occur in athletic activities or exercising. In the United States there are about 30 million teenagers and children alone that participate in some form of organized sport. About 3 million sports competitors 14 years of age and under experience sports injuries annually, which causes some loss of time of participation in the sport.[1] The leading cause of death involving sports-related injuries, although rare, is brain injuries. When injured the two main systems affected are the nervous and vascular systems. The origins in the body where numbness and tingling occurs upon sports injuries are usually the first signs of the body telling you that the body was impacted.[2] Thus, when an athlete complains of numbness and especially tingling, the key to a diagnosis is to obtain a detailed history of the athlete's acquired symptom perception, determine the effect the injury had on the body and its processes, and then establish the prime treatment method. In the process to determine what exactly happened in the body and the standing effects most medical professionals choose a method of technological medical devices to acquire a credible solution to the site of injury. Prevention helps reduce potential sport injuries. It is important to establish participation in warm-ups, stretching, and exercises that focus on main muscle groups commonly used in the sport of interest. Also, creating an injury prevention program as a team, which includes education on rehydration, nutrition, monitoring team members "at risk", monitoring behavior, skills, and techniques.[3] Season analysis reviews and preseason screenings are also beneficial reviews for preventing player sport injuries. One technique used in the process of preseason screening is the

functional movement screen. The functional movement screen can assess movement patterns in athletes in order to find the at risk players. Following various researches about sport injuries shows that levels of anxiety, stress, and depression are elevated. A study in 2010 found that athletes with severe sports injuries would display higher levels of post-traumatic distress and the higher the levels of post-traumatic distress are linked with avoidant coping skills.[4]

Acute Injuries

The primary goal of sports injury first aid is to stop the activity and prevent further injury or damage. Most sports injuries that require immediate treatment are called "acute injuries." These occur suddenly and generally cause the following symptoms or conditions:

- Pain and swelling
- Cuts and abrasions
- Fractures
- Sprains and strains
- Concussion

With an acute injury, it's usually obvious what caused the injury. Nonetheless, determining the exact cause of the injury is an important part of making quick treatment decisions.

The first treatment for most acute soft tissue injuries (bruises, strains, sprains, and tears) is to prevent, stop, and reduce swelling. When soft tissue is damaged, it swells or possibly bleeds internally. This swelling causes pain and loss of motion, which limits the use of the muscles.

Injury First Aid

- **Protection:** In this case, protection means stopping activity immediately and protecting the injured part from additional damage.
- **Rest:** Rest the area to allow the tissues time to heal.
- **Ice:** Applying cold therapy (ice or an ice pack wrapped in a thin towel) to an acute injury reduces swelling and pain. Ice is a vaso-constrictor. It causes the blood vessels to narrow and limits internal bleeding at the injury site. Apply cold to the affected area every two hours for no more than 20 minutes at a time. Allow the skin temperature to return to normal before icing it again. You can ice an acute injury several times a day for up to three days.
- **Compression:** Compression of an acute injury is perhaps the next most important immediate treatment tip. By quickly wrapping the injured body part with an elastic bandage or wrap, you help keep swelling to a minimum. If possible, it's helpful to apply ice to the injured area over the compression wrap to limit the swelling.
- **Elevation:** Elevating the injured area is another way to reduce the blood flow and swelling to the area.

Soft Tissue Injury Step-By-Step

Here is what you should do immediately when you sustain any soft tissue injury:

1. Stop the activity immediately.
2. Wrap the injured part in a compression bandage.
3. Apply ice to the injured part (use a bag of crushed ice or a bag of frozen vegetables, if needed) for 10 minutes to 15 minutes. Let the area warm completely before applying ice again (to prevent frostbite).
4. Elevate the injured part to reduce swelling.
5. Get to a physician for a proper diagnosis of any serious injury.

First Aid for Cuts and Abrasions

If the injury causes a cut or abrasion that leads to bleeding, it's important to stop the blood flow quickly. Wash the wound with soap and water, and apply an appropriate bandage until medical help arrives.

A deep cut will probably require stitches. However, if you can pull the edges of the cut together, you may be able to use a butterfly bandage to hold it closed.

Chronic and Overuse Injuries

While the most dramatic sports injuries are acute and sudden, the majority of sports injuries come on gradually and result in vague aches and pains. The chronic pain of overuse injuries, such

as tendonitis, tends to have subtle or vague symptoms that develop slowly. What begins as a small, nagging ache or pain can grow into a debilitating injury if it isn't recognized and treated early. Treating overuse injuries requires rest and reducing exercise intensity, frequency, and duration. Icing an overuse injury can also help reduce inflammation and pain. For more serious overuse injuries, physical therapy, over-the-counter (OTC) medications, and complete rest may be necessary.

Treating Other Sports Injuries

There are many possible types of injuries that may occur while playing sports. It's a good idea for anyone involved in sports to be familiar with first aid treatment for some of the more common sports injuries:

- Possible Neck Injuries
- Ankle Sprains
- Blisters
- Fractured Shoulder
- Hamstring Tear or Pull
- Muscle Cramps
- Common Running Injuries
- Calf Muscle Pull or Strain
- Groin Pull

Returning After an Injury

After you've treated your injury, what comes next? Most athletes want to know how soon they can return to their sport. This answer tends to be different for everyone because each athlete and each injury is unique. Returning to sports too soon can increase your risk of re-injury or developing a chronic problem that will lead to a longer recovery. Waiting too long, however, can lead to unnecessary .

Conclusion

First Aid is the help given to someone who is injured or ill, to keep them safe until they can get more advanced medical treatment by seeing a doctor, health professional or go to hospital. The role of a first aider is to give someone this help, while making sure that they and anyone else involved are safe and that they don't make the situation worse. Treating any injury right away is important, so it is good to review all of these common first aid methods regularly to refresh your memory. That way, you'll be prepared and know what to do just in case something happens.

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Role of Sports Management**Prof. Dhananjay B. Vitalkar**Assistant Professor, Degree College of Physical Education,
(H.V.P.M.) Amravati**Sport Management**

Sport management is a branch of education about business aspect of sport. Some examples of sport managers include the front office system in professional sports, college sport managers, recreational sport managers, sports marketing, event management, facility management, sports economics, sport finance, and sports information. They will be able to work at the management and marketing departments of sports organizations, clubs and sports associations. Students might be employed at business companies and take part in management of leisure time activities. They will be prepared to carry out economic, commercial and administrative activities as sports managers' assistants, marketing assistants and later even as economists and managers of sports facilities.

Sport management is a branch of study about the business aspects of sport. The work of a sport manager includes activities at the front office in professional sports. It means dealing with clients, marketing, sales, services, organizing events and others. Sport managers may work in the field of college sports, recreational and leisure time sports, sports marketing, event management, sponsorship, facility management, sports economics, finance and sports information. Sport Broadcast Sport Broadcasting – and sport television in particular is one of the primary driver of the business of sport. It includes sport television, sport radio and web casting. While some leagues are still gate-driven leagues such as the receive more money from television rights than any other revenue stream.

Sport Law Contract management

Both with highly-paid players and with sponsorship and other commercial agreements, including broadcast contracts – has become a defining characteristic of the business of sport. For that reason, in addition to increasing importance placed on finance, marketing and salary cap professionals in recent years, lawyers and legal specialists have emerged as critical players in most professional sport organizations. Sport Licensing Sport licensing covers everything from the licensing of merchandising rights (i.e. Reebok having the rights to market and sell replica jerseys in the NHL) to the licensing of video games (EA Sports licensing the FIFA name and logo for FIFA 11, as an example). It entails the formal process of issuing a license, typically governing sales or marketing or branding rights. In the business of sport, licensing almost universally involves written permission or consent in the form of a license. The vast majority of Sport Licensing in North America is in the area of sport merchandising or apparel by manufacturers or professional leagues or collegiate institutions. Sport Media Sport Media typically includes newspapers, television, radio, magazine and their online applications. The branch of the business of sport has expanded significantly since 1995 and the rise of Internet, and with it, sport web sites and blogs. Sport Sponsorship In most sport organizations, Sport Sponsorship accounts for a significant percentage of revenues, often second only to ticketing in gate-driven businesses and third behind ticketing and broadcast in the most sophisticated of leagues which carry strong broadcast partnerships. Sport Television Sport television is the primary distribution channel for the sports entertainment sector and is by far the primary driver of revenues for leagues such as the National Football League in the U.S. It is the way most fans "consume" professional sport, in some cases by a factor of 20:1 compared to inarena attendance.

UK athletics identify the following coaching styles: Telling - primarily the coach uses instruction and explaining Showing - primarily the coach uses demonstration Involving - primarily the coach allows self discovery and questioning to raise the athlete's awareness Successful coaches must have good knowledge of the sport sciences, sport management, and techniques and tactics. Successful coaches rank their objectives in the right priority. To be successful, coaches adopt a coaching style compatible with those objectives. There are three other attributes of successful coaches: knowledge of the sport, motivation, and empathy.

- Forecasting.
- Planning.
- Organizing.
- Commanding.
- Coordinating.
- Controlling.

Management is the art of accomplishing tasks through others by directing their efforts toward the achievement of predetermined goals. It involves a process of coordinating and integrating resources to effectively and efficiently attain organizational objectives. In order to achieve organizational success, sports and recreation managers ought to use the resources at their disposal in an effective and efficient manner. These resources may include human resources (players, coaches, and volunteers), financial resources (revenues from merchandise, sponsors, and television rights), physical resources (training facilities, equipment, and stadiums), and technological.

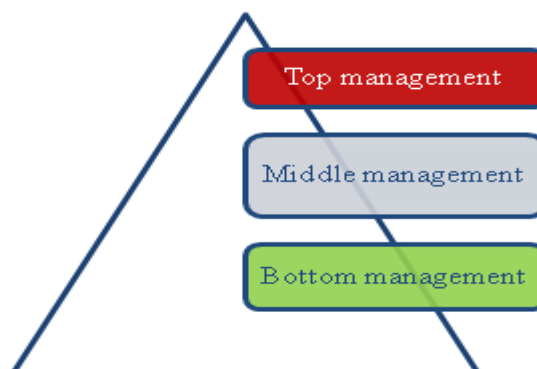


Conceptual Framework

- Sports management under various management levels, roles, and functions

Management Levels

- Management levels in sports and recreation are hierarchical and can be grouped into top level management, middle level management, and bottom level management.



Top level managers include the commissioner of the National Football League (NFL), Roger Goodell, and the board members, since these are the leaders of the organization. NFL managers at the middle level of management include the director of marketing and/or operations. Lastly, the bottom or operational level of managers in the NFL encompasses the front-desk staff, security personnel, and cleaners. Pay, qualifications, and experience greatly vary by level.

A. Management Functions

The five basic functions of management include planning, organizing, staffing, directing, and controlling

Management Functions



First, planning entails developing vision, mission, and objective statements, as well as strategic plans for the organization. An example is a marketing manager of the Celtics, who develops a winning marketing plan to increase game attendance. The second management function is organizing, which involves developing an organizational structure suitable for the size and complexity of the organization, then dividing labor accordingly with certain degrees of delegation, departmentalization, and informal structures. It is a process of delegating and coordinating tasks and resources to achieve desired objectives based on available human, physical, financial, and informational resources. For instance, the events manager is usually in charge of organizing a successful event, which may involve catering, security, entertainment, and proper amenities. The third function of management is staffing. This involves recruiting, screening, hiring, training, and maintaining competent and satisfied staff. For example, some big teams have fulltime recruitment managers whose goal is to assemble top talent to produce a winning team. The fourth function of management is directing, which involves decision making, problem solving, leadership, communication, motivation, and discipline. Finally, the last function of management is controlling, which pertains to establishing standards that measure results.

Management Roles

The role of the modern recreation and sports managers continues to evolve. The common roles include supervision of programs and operational services, as well as the development of organizational goals, objectives, policies, operating procedures, and assessments. Other responsibilities may include promotion of sports activities and facilitation of a positive work environment. As illustrated in the role of the coach is to train and motivate players to win. To do so, the coach may first begin by focusing on main responsibilities, such as analyzing players' performances, conducting drills, and providing encouragement. Minor responsibilities could include mentoring, motivating, organizing, facilitating, and supporting the athlete in off-field issues. Examples of decision making roles include being a negotiator, allocating resources, and handling conflicts. Informational roles include monitoring, disseminating information, and being a spokesperson of the team. Moreover, the interpersonal roles of a coach may include being a leader, liaison and figurehead. However, team owners may be largely focused on acquiring stadiums, financing the team, and produce a profitable franchise.

Management Roles

Coach	Commisioner	Team Owners
<ul style="list-style-type: none"> • Train • Motivate • Produce a winning team 	<ul style="list-style-type: none"> • Enforce league rules • Business strategist • Run a successfull league 	<ul style="list-style-type: none"> • Accure stadiums • Finance the team • Produce a profitable franchize

C. Managerial Skills

A competent sports manager is one who is well rounded and possesses the following or more skills in equal measure: technical skills, people skills, communication skills, conceptual skills, and decision-making skills.

Skills Needed and Functions Performed by Management Levels

Management level	Desired management function	Ideal management function
Top	Conceptual & decision making skills	Planning & organizing
Middle	Balance of all skills	Balance of all four
Bottom	Technical and people skills	Leading & controlling

Skills are sometimes matched based on the division of labor that occurs when jobs are organized by specialty. For example, an accounting manager works in the accounting department, and a marketing manager works in the marketing/ ticketing department. Furthermore, managers usually perform less specialized functions as they move up the management ladder. However, various departments often work in a coordinated manner to accomplish strategic and operational objectives, requiring sharp conceptual skills

Conclusion:

The roles, functions, and levels of recreation and sports managers. Based on the level of management, the roles can be different. For instance, Competent sports managers may therefore be deemed effective if they use their skills well. We can end this chapter by adding that. “The primary purpose of good corporation management is to keep a company in business indefinitely. They must look ahead and plan for depression risks, competition, obsolesce, exhaustion of natural resources, population movements, fashion changes, and political attacks. They must grow reserves against hard times, improve and lower the cost of their products, stabilize the security of their workers as much as possible, and make the public like and desire their company as a community and national asset.”

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पालेभाज्यांचे आहारातील महत्त्व

संशोधनकर्ती

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श्री. शिवाजी कला व वाणिज्य महा.अमरावती

प्रस्तावना :-

शरीरातील विविध कार्यासाठी वेगवेगळी पोषकतत्त्वे आवश्यक असतात. ही पोषकतत्त्वे आपल्याला अन्नातून मिळतात. प्रत्येक अन्नपदार्थातून वेगवेगळी पोषकतत्त्वे मिळतात. साखरेतून फक्त कार्यशक्ती मिळते तर डाळीतून प्रथिने व 'ब' जीवनसत्त्वे मिळते. तसेच आपल्याला भाज्यांमधूनपाणी, कर्बोदके, जीवनसत्त्वे, क्षार यांचा पुरवठा होतो. प्रत्येकाला आवश्यक ती पोषकतत्त्वे योग्य प्रमाणात आहारात घेता यावी यासाठी अन्न पदार्थांचे त्यातील पोषकतत्त्वानुसार पाच मूलभूतगटात वर्गीकरण केले आहे. यास अन्नाचे मूलभूतगट असे म्हणतात.

- 1) एकदल धान्य व त्याचे पदार्थ
- 2) डाळी व कडधान्ये
- 3) दूध व मांसजन्य पदार्थ
- 4) फळे व भाज्या
- 5) स्निग्ध पदार्थ व साखर

आपण रोजच्या आहारात विविध प्रकारच्या भाज्या वापरतो. ऋतुमानाप्रमाणे वर्षातून एकदा, दोनदा किंवा बाराही महिने उपलब्ध असणाऱ्या वनस्पतींच्या विविध खाण्यास योग्य भागांचा भाज्या म्हणून उपयोग केला जातो. वनस्पतीचे विविध भाग म्हणजेच, फळ, बिया, कंद, मुळे, देठ, पान आणि फुल, वनस्पतीच्या ह्या विविध भागांचा कच्च्या किंवा शिजविलेल्या स्वरूपात उपयोग केला होता.

भाज्यांचे वर्गीकरण :- वनस्पतीच्या ज्या भागाचा खाण्यासाठी वापर केला जातो त्यानुसार भाज्यांचे वर्गीकरण केले जाते.

- फळ :- फळभाजी, वांगी, दुधी, टोमॅटो
 बिया :- बीयुक्त भाजी, मटार, वाल
 कंद :- कांदा, लसून
 मुळे :- बीट, गाजर, मुळा
 देठ :- अळुचे देठ, राजगिरा देठ
 पान :- पालेभाज्या, अळू, कोबी, पालक, मेथी
 शेंगा :- गवार, घेवडा
 फूल :- फुलभाजी, फ्लॉवर, हृदयाची फुले, केळ फुल

तसेच भाज्यांमधूनपाणी, कर्बोदके, जीवनसत्त्वे, क्षार यांचा पुरवठा होतो. भाज्यांमध्ये ह्या घटकांचे प्रमाण कमी जास्त असते. हे प्रमाण वनस्पतीच्या कोणत्या भागाचा वापर केला आहे यावर अवलंबून असते. भाज्यांमध्ये खाण्यास अयोग्य भागाचे प्रमाण जास्त असते किंवा टाकाऊ भाग अधिक असतो.

पालेभाज्यांचे आहारातील महत्त्व :-

भारतात असंख्य जातीच्या पालेभाज्या उपलब्ध आहेत. त्यातील बहुतेक वर्षभर मिळतात. त्या जास्त दिवस टिकत नाहीत. तेव्हा त्या अजूनतरी निर्यात करण्यात आलेल्या नाहीत व नजीकच्या काळातही त्यांची निर्यात होईल असे वाटत नाही. याचा सामान्य माणसाने फायदा घ्यावा व आपल्या आहारात पालेभाज्यांचा मोठ्या प्रमाणावर वापर करावा.

पालेभाज्या खाल्ल्यास कोठ्याची शिथिलता जाते. शौचास साफ होते व शिथिलतेमुळे उत्पन्न होणारे अन्नातले दोषही टाळता येतात. आहारात कॅल्शियम, लोह वगैरे अत्यावश्यक आहे. कॅल्शियम ही हाडे व दात निरोगी होण्यास

लागतात. चुना शरीरातल्या इतर हालचालीसाठी सुद्धा आवश्यक आहे. तसेच हृदयाच्या व अन्य स्नायूंच्या हालचाली, रक्ताचे गोठणे वगैरेही चुन्यावर अवलंबून असते. कर्बोदके, फॅट्स प्रथिनांच्या पचनास आवश्यक आहेत. लोह हे लाल रक्तगोलात फार असते व अप्रत्यक्षपणे ते रक्तातून प्राणवायू शरीरास पोचविते. आहारात लोहाची कमतरता असल्यास रक्तक्षय (अॅनिमिया) होण्याची भीती असते. आपल्या देशात रक्तशय विशेषतः लहान मुले व गर्भवती स्त्रीया व स्तनपान करविणाऱ्या मातांमध्ये फार मोठ्या प्रमाणावर आढळतो. जीवनसत्व 'अ' डोळ्यांच्या आरोग्यासाठी अत्यंत जरूरीचे आहे. त्याच्या अभावामुळे रोगप्रतिकार शक्तीही प्राप्त होत नाही. त्वचेचे व डोळ्यांचे रोग, रातआंधळेपणा, अंधत्व वगैरे रोग उद्भवतात. आपल्या देशात बालवयात अंधत्व आलेले लाखो लोक आहेत. यातील 60% लोकांना जीवनसत्व 'अ' च्या अभावामुळे ओढवलेले असल्याचे दिसते. 'अ' जीवनसत्वाचा अभाव असल्यास खोकला, पडसे, फुफ्फुसाचे रोगही होतात. तसेच 'क' जीवनसत्वाचा आहारात तुटवडा असल्यास हिरड्या सुजतात. त्यातून रक्त वाहते. स्क्रही नावाचा रोगही होतो. तसेच जीवनसत्व 'क' आपल्या शरीरात लोहाचे शोषण होण्यास मदत करते. रिबोफ्लेविन व फोलिक अॅसिड हे जीवनसत्व 'ब' गटातले दोन घटक आहेत. फोलिक अॅसिड रक्तक्षयाचा प्रतिकार करण्यास उपयुक्त आहे. रिबोफ्लेविनच्या आहारातल्या तुटवड्यामुळे सतत तोंड येते. डोळ्यांना त्रास होतो. रिबोफ्लेविन व जीवनसत्व 'ब' गटातली दुसरी जीव. शरीरात होणाऱ्या सर्व हालचालींसाठी अत्यंत आवश्यक आहेत.

रोजच्या जेवणात पालेभाज्यांचा उपयोग करणे महत्वाचे आहे. ब्राह्मणी जेवणांत अळूच्या भाजीला फार महत्त्व असते. ते या दृष्टीने योग्य म्हणावे लागते. आफ्रिकेतील काफिर निरनिराळ्या वेलांचे शेंडे खुडून त्यांची सुंदर भाजी करतात तर अमेरिकेतील तांबडे इंडियन घोळू व इतर छोट्या हिरवळ वनस्पतींचा पालेभाजी सारखा उपयोग करतात. म्हणूनच पालेभाज्या भोजन साहित्यात महत्त्वाच्या गणल्या गेल्या आहेत. कोबी, सालट, पालक किंवा अळू, मेथी, चाकवत, पोकळा, चुका, अंबाडी अशा पौकी एखाद दुसरी भाजी आपल्या दर वेळच्या भोजनात असावी.

पालेभाज्यांचे उपयोग व गुणधर्म :-

1) प्रचलित पालेभाज्या

1) कोथिंबीर :-

कोथिंबीरच्या हिरव्या आकर्षक स्वादयुक्त पानांचा उपयोग दररोजच्या आहारात केला जातो. वड्या आणि चटणी तयार करण्यासाठी सुद्धा उपयोग मोठ्या प्रमाणात करतात. यामध्ये प्रथिने, कार्बोहायड्रेट्स, लोह, कॅल्शियम या द्रव्यांचे प्रमाणही भरपूर असते. धन्यामध्ये औषधी गुणधर्म असून थंड शक्तीवर्धक, पचनशक्ती वाढविणारे आहे. धन्यामध्ये सुगंधी तेलाचे प्रमाण 0.2 ते 1 टक्का असते. या तेलात डेक्ट्रोलिनालुल, कोरी अॅन्ड्रोल, ऑक्झालिक आम्ल ही द्रव्ये असतात.

100 ग्रॅम कोथिंबीरमध्ये खालील पोषक द्रव्ये असतात-

पाणी 86.00 ग्रॅम, कार्बोहायड्रेट्स:- 6.30 ग्रॅम, प्रोटीन- 3.0 ग्रॅम, स्निग्ध पदार्थ- 0.60 ग्रॅम, 'अ' जीवनसत्व- 11530 IU, थायमिन- 0.05 ग्रॅम, रिबोफ्लेविन- 0.06 ग्रॅम, 'क' जीवनसत्व- 135.00 मिलीग्रॅम, कॅल्शियम-184 मिलीग्रॅम, स्फुरद- 71.0 मिलीग्रॅम, लोह- 18.50 मिलीग्रॅम, पालाश- 256.0 मिलीग्रॅम

2) पालक :-

महाराष्ट्रातील सर्व भागात पालक या पालेभाजीची लागवड वर्षभर केली जाते. पालकाची कोवळी हिरवी लुसलुशीत पाने भाजीसाठी वापरतात. पालक ही भाजी आहाराच्या दृष्टीने फारच पौष्टिक असून त्यात 'अ' आणि 'क' जीवनसत्व भरपूर प्रमाणात असतात. शिवाय प्रथिने व इतर खनिजे सुद्धा भरपूर प्रमाणात असतात. पालकाचा उपयोग भाजी, सूप, भजी इत्यादीमध्ये करतात.

100 ग्रॅम भाजीत खालील पोषक द्रव्ये असतात-

पाणी- 90 ते 70 ग्रॅम, रिबोफ्लेविन- 0.26 ग्रॅम, कॅल्शियम- 73 ग्रॅम, प्रोटीन- 0.2 ग्रॅम, फॉस्फरस- 0.70 मिलीग्रॅम, थायमिन- 0.03 ग्रॅम, 'अ' जीवनसत्व- 5580 IU, 'क' जीवनसत्व- 28 मिलीग्रॅम.

3) **मेथी** :- मेथी ही महाराष्ट्रातील सर्वसामान्य लोकांची अत्यंत आवडती भाजी आहे. मुख्यत्वेकरून मेथीची पाने आणि कोवळ्या फांद्या भाजीसाठी वापरतात. मेथीच्या बियांचा मसाल्यामध्ये उपयोग करतात. शिवाय मेथीला औषधी महत्त्व आहे.

मेथीची भाजी पाचक असून पचनक्रियेची क्षमता वाढविण्यास मदत होते. मेथीमध्ये प्रथिने आणि खनिजांचे भरपूर प्रमाण असते. त्याचप्रमाणे 'अ', 'ब' आणि 'क' जीवनसत्व सुद्धा पुरेशा प्रमाणात असतात.

100 ग्रॅम खाण्यायोग्य भाजीत खालीलप्रमाणे पोषकद्रव्ये असतात-

पाणी- 86.1 ग्रॅम, लोह- 17.2 ग्रॅम, प्रोटीन- 4.4 ग्रॅम, कॅल्शियम- 360.0 ग्रॅम, खनिजे- 1.5 ग्रॅम, थायमिन- 0.02 ग्रॅम, 'अ' जीवनसत्व- 6450 IU, 'क' जीवनसत्व- 54.0 मिलीग्रॅम, स्निग्ध पदार्थ- 0.99 ग्रॅम, फॉस्फरस- 51.09 ग्रॅम, पालाश- 51.09 ग्रॅम, कार्बोहायड्रेट्स- 6.0 ग्रॅम

4) **घोळ** :- या भाजीचे पान वाटोळे व तांबूस असते. हिच्यात दोन जाती आहेत. लहान व मोठी त्यांना रानघोळ व राजघोळ म्हणतात. घोळीची पातळ भाजी करतात. हिचा प्रसार शार्लेमेन राजाचे वेळी युरोपांत प्रत्येक घरी होता. ही भाजी 50 ग्रॅम घेतल्यास त्यात रोजच्या लोहाचा 8 टक्के लोह व कॅल्शियमचा 12 टक्के कॅल्शियम असते. उन्हाळी लागल्यास घोळचा रस अधिक खडीसाखर दिल्याने बरे वाटते.

घोळ थंड रुचिप्रद, पिण्यास व सारक आहे. त्वचादोष, मुरुम, नेत्ररोग, मेह, सूज या विकारांत घोळूची भाजी हितकर होते.

100 ग्रॅमधील पोषक मूल्य:-

प्रथिने-2.4 ग्रॅम, स्निग्धपदार्थ- 0.6 ग्रॅम, मिनरल- 2.3 ग्रॅम, तंतूमयपदार्थ- 1.3 ग्रॅम, उष्मांक किलो कॅलरी- 27, कॅल्शियम-111 मिलीग्रॅम, लोह- 14.8 मिलीग्रॅम

5) **शेपू** :- हिची पाने बारीक काळीसारखी दिसतात. शेपू व पालक या दोन भाज्या बज्याच वेळा एकत्र करून विकतात. शेपूच्या 'बी' ला बाळंतशोप म्हणतात. ही वातहारक भाजी आहे. वातबद्ध माणसाला हिच्या नित्यसेवनाने फायदा होतो. ही मलावरोध नाहीसा करते. शेपू दीपक, मधूर, दुग्धवर्धक, वृषपथ्यक मूत्रल व डोळ्यांना हितकारक आहे. वायु, शुल, गुल्म, ज्वर या विकारांत हिताची होते.

100 ग्रॅम मधील पोषक मूल्य :-

प्रथिने-3.0 ग्रॅम, स्निग्ध पदार्थ- 0.5 ग्रॅम, तंतूमयपदार्थ- 1.1 ग्रॅम, उष्मांक किलोकॅलरी-37, कॅल्शियम-190 मिलीग्रॅम, लोह-17.4 मिलीग्रॅम, जीव 'अ' मायक्रोग्रॅम, कॅरोटीन- 7182, थायमिन- 0.03 मिलीग्रॅम इ.

दुर्लक्षितपालेभाज्या :-

1) **करडई** :- या भाजीच्या पानाला कात्रे असतात. करडईच्या फुलांत केशराप्रमाणे तंतू असतात. कोवळ्या पाल्याची भाजी करतात. ही मधूर, रूक्ष, उष्ण व कफनाशक आहे. सर्दी, पडसे झाले असता ही भाजी खावी. शरीरातील मेदाचा नाश करण्यास ही उपयोगी आहे. मलमूत्राचाही नाश करते.

2) **चंदनबटवा** :- हे झाड कंबरेइतके उंच वाढते. ह्याची पाने खालच्या बाजूने तांबूस असतात. पानांना वास असता. गुजरात, उत्तर हिंदूस्थान इकडे ही भाजी फार लावतात. हिच्यांत क्षार बरेच आहे. ही भाजी त्रिदोषनाशक आहे. मज्जातंतूच्यारोगांतही उपयोगी पडते.

3) **पोकळा** :- पोकळ्याचा देठ तांबडा असतो. पाने थोडीशी तांदुळाच्यासारखी दिसतात. किंचीत आंबट आहे. बी आलेला पोकळा उपयोगी नाही. पोकळा थंड, सारक, रूचिकर, हृद्य, ज्वर, कफ, पित्त व वातनाशक आहे.

4) **मांठ** :- मांठांत तांबडा, पांढरा अशा दोन जाती आहेत. देठ हिरवा किंवा लाल असतो. मांठ पेरल्यापासून तीन आठवड्यांनी उपयोगी होतो. बी आल्यावर देठाचीही भाजी करतात. मांठ मधूर, थंड, सारक, कफ, वातहारक आहे. तो रक्तपित्त, पित्त व मद यांचा नाश करतो. तांबड्यामांठाच्या दांड्याचा रस दारूला उतार म्हणून देतात.

5) **सालट** : सालटाची पाने फार रसयुक्त असतात. ऑगस्टस सीझर हा रोमचा सम्राट, आपण 'सालट'मुळे एका मोठ्या दुखण्यांतून बरे झालो असे म्हणत असे. ही भाजी त्याला फार प्रिय होती. हिच्यात क्षार व जीवनीचे पुष्कळ आहेत. शौचशुद्धीला सहाय्य होण्यास हिचा मोठा आधार होतो. मेद वाढण्याची लक्षणे ज्यांच्यात हगगोचर होत असतील अशांना

ही हितावह आहे. त्यांनी ही भाजी सपाटून खावी. वर लिंबू पिळावे. पण तेल मात्र घालू नये. यासाठी रायते किंवा कोशिंबीर करावी. जेवणाच्या आरंभीच ती खावी.

पालेभाज्या शिजविण्याची / हाताळण्याची पद्धती :-

पालेभाज्यांमध्ये पाण्यात विरघळणारे जीवनसत्व जसे 'क' आणि 'ब' गटातील जीवनसत्वे फोलिक ॲसिड भरपूर प्रमाणात आढळतात. म्हणून त्यांची हाताळणी काळजीपूर्वक करणे आवश्यक आहे. त्यासाठी पालेभाज्या अगोदर धुवाव्यात आणि मग चिराव्यात. चिरून धुतल्यास जीवनसत्वे व लवण पाण्यात विरघळून निघून जाते. पालेभाज्या उघड्या भांड्यात शिजवू नयेत. उघड्या भांड्यात शिजविल्याने त्यातील जीवनसत्वे नाश पावतात. शिजवताना जास्त पाणी वापरू नये व भाजीत उरलेले पाणी फेकून देऊ नये. पालेभाज्या कुरकमध्येच शिजवाव्यात. पालेभाज्या शिजवताना त्यात सोडा घालू नये. पावसाळ्यामध्ये पालेभाज्यांवर कीड, अळ्या असतात. त्यासाठी पालेभाज्या चिरण्यापूर्वी मिठ व चिमूटभर हळदीच्या पाण्यात किंवा क्लोरिनच्या 4/5 थेंबात द्रावणात थोडावेळ ठेवल्यानंतर चिराव्यात. तसेच पालेभाज्यांना अनेकदा चिखल चिकटलेला असतो. तो स्वच्छ धूवून काढायला हवा. नाहीतर त्यापासून त्यावर असणाऱ्या जंतूपासून अपाय होण्याचा धोका आहे. गुजरातेत बाजरीच्या भाकरीत व इतर भागात गव्हाच्या पोळीत पालेभाज्या चिरून घालतात. ही प्रथा चांगली आहे. लहान मुलांना इडलीसारखे उकडलेले पदार्थ पालेभाज्या घालून द्यावेत. ते खाण्यासाठी चांगले लागतात. गृहिणींनी पाकक्रियेत पालेभाज्यांचा जास्तीत जास्त उपयोग कसा करता येईल यावर प्रयोग जरूर करावेत.

या वर्गातील भाज्यांत कोणत्याही अन्नपदार्थापेक्षा कमी पोषकद्रव्ये असतात. पण निरोगी जीवनाला या भाज्यांची अत्यंत गरज असते. ती त्यातील बहुमूल्य क्षार, जीवनीचे व काष्टतंतु यांच्यामुळे होय. पाकसिद्धी करताना ते बरेच नष्ट होतात.

भाज्या शिजविण्यास जे पाणी उपयोगात आणतात त्यांत पोषक क्षार व जीवनीचे पुष्कळशी विरतात. एवढ्यासाठी भाज्या पाण्यात शिजविण्याऐवजी वाफेवर शिजवाव्या. पाण्यात शिजविल्या तर ते पाणी त्यांत मुरू द्यावे किंवा पातळ कालवणे करण्यात त्याचा उपयोग करावा. पण कोणत्याही कारणास्तव ते फेकून देऊ नये. यासाठी आपल्याकडे डाळ, डाळीचे पीठ घालून भाज्यांतील पाणी भाज्यांतच आटविण्याची जी रित आहे तरी वाजवी आहे. भाज्या शक्यतो ताज्या असाव्यात.

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आधुनिक जीवनामध्ये योगाची भूमिका

डॉ. माधव देसाई शेजूल

शारिरीक शिक्षण विभाग प्रमुख
ज्ञानोपासक महाविद्यालय परभणी.

योगाभ्यास हा मनशांतीसाठी आहे. समाजातील प्रत्येक व्यक्तीमध्ये आत्मविश्वास मनाची एकाग्रतेसाठी योगाभ्यास महत्वाचा घटक आहे. या साठी मनुष्याला योगाचे महत्त्व सांगणे आवश्यक आहे. योग हा शब्द संस्कृत भाषेतील युग या धातूपासून बनलेला आहे. योगाची उत्पत्ती पातांजली ऋषीने केलेली आहे ऋषीमुनीनी स्वतःचे आरोग्य चांगले राहण्यासाठी योगाभ्यास केलेला आहे. दीर्घ आयुष्य प्राप्त होण्यासाठी योगाची मदत झालेली दिसून येते. नियमित योगाभ्यासाने व्यक्तीचा शारिरीक, मानसीक विकास होण्यासाठी मदत होते. पातंजलीने यम, नियम, आसन, प्रत्याहार, प्राणायाम, ध्यान, धारणा, समाधी हे आठ अंग सांगितलेले आहेत. बऱ्याच व्यक्तीला राग येतो, बेचैन राहातात, मन शांत नसल्यामुळे चिड चिड करतात. अशा व्यक्तीला मनाची एकाग्रता वाढविण्यासाठी योगाभ्यासाची आवश्यकता आहे.

सध्याचे युग हे यांत्रिक युग असल्यामुळे मनुष्याच्या मनावर ताण येतो. त्यामुळे मनुष्याला थकवा येतो. व्यक्तीला मानसिक ताण येतो. मानसिक ताणामुळे वेगवेगळे आजार निर्माण होतात. हे आजार होऊ नयेत म्हणून योगाभ्यास करणे आवश्यक आहे आपले मन आनंदी रहाण्यासाठी नियमित योगाशने करणे आवश्यक आहे शरीर व मन या दोन्ही स्थिती चांगल्या असणाऱ्या मनुष्याचे आरोग्य चांगले आहे असे मानले जाते. योगाशनामुळे जीवनाचा दर्जा उंचावला जातो योगाभ्यासामुळे ध्येयवाद समाधान एकाग्रता इत्यादी गुणाचे संवर्धन होते मनुष्याला दैनंदिन जीवनामध्ये योगाचा उपयोग होतो. नियमित योगाभ्यास केल्यामुळे शरीरामध्ये वेगवेगळे बदल दिसून येतात. पेशीचा आकार वाढतो. ऱ्हदयाची कार्यक्षमता वाढते. श्वसन क्षमता वाढते.

योगाविषयी बऱ्याच लोकामध्ये जिज्ञासा आहे परंतू मोजक्याच लोकांना योगाभ्यास करावा असे वाटते. भारतीय संस्कृती, तत्वज्ञान आणि धर्मशास्त्र ही एकमेकांशी निगडीत आहे. त्यामुळे भारतीय संस्कृतीमध्ये स्त्रीला महत्वाचे स्थान आहे. योग हा वेदकाळापासून आलेला विषय आहे. पूर्वी मन शांतीसाठी योगाभ्यास करीत असत तेव्हा पूर्वापार चालत आलेला हा योगाभ्यास आपण का करीत नाही त्यामागील मुख्य कारणे म्हणजे आळस, अंधश्रद्धा, अनावड, अज्ञान होय. पातंजलीनी योगदर्शनात साधकाचे दोन प्रकार सांगितले आहेत पहीला साधक शांत व स्थिर वृत्तीचा आहे जो चंचल नाही. इंद्रिये आपल्या ताब्यात ठेवलेली आहेत. तो एकग्र होऊ शकतो ज्याचा आचार व विचार समतोल आहे दुसरा साधन अशांत व आळशी अशा आहे. मनाने कमकुवत आहे. ज्याची इच्छाशक्ती दुबळी आहे. ज्याचे आचार विचार लवकरात लवकर बदलतात बाहेरील गोष्टीकडे लक्ष जास्त ठेवतात.

तप, स्वाध्याय व ईश्वर प्रणिधान म्हणजेच क्रियायोग होय. क्रियायोगात अष्टांग योगाचा समावेश होतो. आष्टांग योग म्हणजे यम, नियम, आसन, प्राणायाम, प्रत्याहार, धारणा, ध्यान व समाधी होय.

- 1) **यम :-** सार्वभौमिक आचरणाचे नियम शारीरीक व मानसीक दुख न देणे हिंसा न करणे त्रास न देणे, खरे बोलणे
- 2) **नियम :-** नियमनामधुन आत्मशुद्धी करणे शरीर व मन यांची सुद्धी राखणे संतोष मानने.
- 3) **आसन :-** स्थिती शरीर योग्य स्थितीत धारण करून ठेवणे.
- 4) **प्राणायाम :-** श्वास आणि उच्छ्वास यांचे लयबंध नियंत्रण.
- 5) **प्रत्याहार :-** इंद्रियाच्या आणि बाह्य विषयाच्या प्रभावापासून मनाला मुक्त करणे.
- 6) **धारणा :-** चित्त एकाग्र करणे.
- 7) **ध्यान :-** इतर गोष्टीचा विचार न करता एकाच विषयाचे चिंतन करणे.
- 8) **समाधी :-** ध्यानाच्या साहाय्याने ध्यानविषयक म्हणजेच परमात्मा आणि साधक यांची एकरूपता अनुभवण्याची स्थिती होय.

यम आणि नियम यामुळे भावना आणि वासना नियंत्रणात राहतात. त्यामुळे सर्वांशी संबध जिव्हाळयाचे राहतात. आसनामुळे शरीर निरोगी, बलवान राहते. आसनामुळे शरीर सुध्द व लवचिक बनते ही योगाची बाह्यरंग होय. प्राणायाम आणि प्रत्याहार ही मनुष्याला श्वसनावर नियंत्रण ठेवण्यास शिकवतात त्यामुळे शरीरातील इंद्रियाला वेगवेगळ्या समस्यातून सुटका करणे शक्य होते यास अंतररंग म्हणतात. धारणा, ध्यान आणि समाधी ही अंगे मनुष्याला आत्म्याच्या केंद्रापर्यन्त पोचवतात ईश्वर हा आपल्या अंतरंगात आहे व त्याला आत्मा म्हणतात याची त्याला कल्पना असते.

शरीर साधनेसाठी शरीराची बांधणी आवश्यक आहे शरीर हे स्नायू हाडे आणि सांधे यांनी बनलेले आहे. स्नायू व हाडे यांच्या अंतर्गत अनेक अवयव येतात. या अवयवची वेगवेगळी कार्ये आहेत. त्यांची ही कार्ये एकमेकावर अवलंबून असतात त्यांना आपण संस्था असे म्हणतो. पचन संस्था, श्वसन संस्था, अभिसरण संस्था, मज्जा संस्था. उत्सर्जन संस्था इत्यादी संस्था आहेत. पचन संस्थेचे काम अन्नाचे पचन करून पचलेला आहार रक्तात मिसळू देणे श्वसन संस्थेचे काम प्राणवायुचा पुरवठा रक्तास करणे व रक्तातून अशुध्द वायु बाहेर फेकणे. उत्सर्जन संस्थेचे कार्य मल मुत्र, घाम बाहेर फेकणे मज्जा संस्थेचे कार्य नियंत्रण ठेवणे होय. त्यामुळे सर्वांची कार्ये व्यवस्थित चालण्यासाठी आसने व प्राणायाम याची मदत होते. आसन म्हणजे शरीर एका योग्य स्थितीत धारण करून ठेवणे. शरीर एक यंत्र आहे शरीरातंर्गत कार्ये स्वनियंत्रित व स्वयंचलित आहे. तेव्हा या यंत्राची निगा राखणे आवश्यक आहे. हे काम आसने प्राणायाम यांनी होते आसने व प्राणायाम ही शरीराला अन्न पाणी व हवा यांचा योग्य तऱ्हेने वापर करण्यास

शिकवतात. शरीराचा वापर योग्य पध्दतीने न केल्यास शरीरामध्ये बिघाड निर्माण होतो. तेव्हा त्याला आवश्यक त्या हालचाली देण्याचे काम आसने करतात.

शरीर ही प्रकृती असल्यामुळे चंचल, हालचाल अस्थिरता आहे तेव्हा तीला एकदम स्थिर करता येत नाही. आसने व प्राणायाम ही योगासने शरीराच्या व मनाच्या हालचालीत नीटनेटकेपणा व शिस्तबध्दता आणतात. प्रत्येक आसनात विविध प्रकारच्या हालचाली आहेत आसनात कमबध्दता आहे. आसनातील हालचाली आणि त्यातून निर्माण होणारी स्थिरता ही शरीरावर व मनावर चांगले परीणाम करतात. पोटाचे स्नायु मजबूत होण्यासाठी पाठीच्या कण्याची हालचाल मोकळी होऊन कण्याचे स्नायु बळकट होतात. शरीराचे रक्ताभिसरण संतुलित होते आसन करताना शरीराचा वापर साधन म्हणुन केला जातो. शरीरातील प्रत्येक स्नायुला योग्य ताण दिला जातो शरीराचे बाह्य स्नायु व अवयवांचे स्नायु यांच्या आकुंचन प्रसरणाची क्रिया व्यवस्थित होते. त्यामुळे त्यांची कार्यशक्ती वाढते आसनानी शरीरातील रासायनिक क्रियेत हवा तसा बदल घडवता येतो म्हणुनच आसनात रोगप्रतिकार व रोगनिवारण करण्याची शक्ती आहे. आसन करताना उपक्रम स्थिती व उपसंहार या गोष्टींना महत्व आहे यामुळे शारीरिक ताकद, मानसिक सावधानता आणि प्राणशक्ती यांना जागृत केले जाते. प्रत्येक आसनात शरीराची स्थिती बदलता येते. त्यामुळे रक्ताभिसरण व्यवस्थित होते. प्रत्येक आसनाचे कार्य वेगवेगळे आहे काही आसने कमी तीव्रतेची तर काही तीव्रतेची आहेत. आसनामुळे मेंदूतील मज्जापेशी आणि डोक्यातील अंतःस्तावग्रंची याचे कार्य सुरळीत होऊ लागते. मनुष्यातील तमोगुण कमी होऊन रजोगुण वाढतो त्यामुळे मनुष्याचा उत्साह वाढतो. कोणतेही काम चांगल्या प्रकारे करण्याची क्षमता वाढते. आसनामुळे स्थिरत्व, आरोग्य, आणि अवयवांचा सुटसुटीतपणा प्राप्त होतो. स्थिर आणि सुखमय आसनाने मनाला समत्व येते, मनाच्या चंचलपणाला प्रतिबंध होतो. आसनामुळे व्यक्तीला आरोग्य लाभते. शरीराच्या आणि मनाच्या जाणिवेचे विस्मरण म्हणजे आरोग्य आसनामुळे शारीरिक दुर्बलता आणि मानसीक व्यग्रता यांच्या पासुन मुक्तता करुन घेतो.

निष्कर्ष :

आसनामुळे शरीर सुदढ होण्यास मदत होते. शरीर निरोगी राहते शारीरिक व मानसिक ताण कमी होण्यास मदत होते. शरीरातील वेगवेळ्या संस्थेचे कार्य एकमेकावर अवलंबून अल्यामुळे त्यांचे कार्य व्यवस्थित चालण्यास योगाभ्यासाची मदत होते. शरीरास लवचिकता येण्यास व मनाची एकाग्र वाढण्यास मदत होते.

संदर्भ :-

1. बी. के. एस. अय्यंगार - योग एक कल्पतरु
2. बी. के. एस. अय्यंगार - योग दीपिका

मनुष्य के जीवन में योग का महत्व

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योगाभ्यास मनशांतीके लिए है। योग शब्द युग धातुसे बना है। जो मनुष्य हरदिन योग का अभ्यास करता है। उसका शारीरिक, मानसीक स्वास्थ्य अच्छा रहता है -हृदयकी कार्यक्षमता बढ़ती है। श्वसन क्षमता का विकास होता है। मनुष्य का जीवन आनंदी हो जाता है। वह व्यक्ती कोणसाही काम आनंदसे करता है। इसलिए मनुष्य के जीवन में योग का महत्व है।

योग एक जीवन पध्दती है। इस जीवन पदती का मुख्य उद्देश मानव को मनुष्य बनाना है। मनुष्य बनने के लिए यम और नियम का पालन करना अनिवार्य है। इससे मनुष्य की बुद्धी जागृत होती है।

1) यम :- यम का अहिंसक, सत्य, अस्तेय, ब्रम्हाचर्य, अपरीग्रह आचारण है।

अहिंसक :- जब मनुष्य अहिंसक हो जाएगा तो वह न केवल मनुष्य और प्राणीमात्र का रक्षक बन जायेगा। वही किसी का हत्या करेगा ही नहीं। किसी को शारीरिक और मानसीक आघात भी नहीं देगा। सामाजीक दुष्ट्री से वह किसी का अनादर नहीं करेगा।

सत्य :- सत्य का अर्थ सच बोलना और सच्चा व्यवहार करना। सत्य हमे भगवान के निकट ले जाता है। सत्य बोलने वाले का वचन अमोघ हो जाता है। जो व्यक्ती सत्य को अपने जीवन में मन वचन और कर्म में पुरी तरह धारण कर लेगा वह सब मनुष्यको जान लेगा।

अस्तेय :- चोरी, बेईमानी, घुसखोरी, कपट, छल आदी को त्यागकर अपनी कमाई से अपने अधिकार के जीवन निर्वाह के साधनो से ही संतुष्ट रहना और किसी के अधिकार का अनुचित ढंग से अपहरण न करना ही अस्तेय है।

ब्रम्हाचर्य :- गृहस्थ जीवन में रहते हुए भी संयमपूर्वक दाम्पत्य जीवन का भोग करे। ऐसा करने से शरीर लम्बी आयु तक उत्साहयुक्त रोग रहित और मन प्रसन्न और पवित्र रहता है।

अपरीग्रह :- अपरीग्रह का पालन करते हुए मनुष्य अपनी आवश्यकता से अधिक संग्रह नहीं करेगा। जो मनुष्य अतिसंपती नहीं करता है वह मनुष्य लोभ या संपतीसे दुर रहता है। जो व्यक्ती संपतीसे प्यार करता है वह कभी सुखी नहीं पाता। इसलिए लोभ से दुर रहना चाहिए।

2) नियम :- नियम के आचरण शौच, संतोष, तप, साध्याय, ईश्वर है।

शौच :- योग विधिसे जल पीकर शरीर के आन्तरीक अंगो की शुद्धी करना आता है। मन को आनंदी या स्वच्छ रखने के लिए राग द्वेष, घृणा यादी का त्याग करना जरुरी है। ताण तनावसे अनेक रोग होते है। तनाव रोगोका मुख्य कारण है। मन को तनावरहीत शांत प्रसन्न रखने के लिए मित्रता, प्रेम को ग्रहण करना आन्तरीक शौच कहलाता है। मनुष्यने एक दुसरे से प्रेम या सहकार्य करना चाहिए।

संतोष :- समाज में जो व्यक्ती संतोष को धारण करता है वह सदा आनंदी रहता है। यह व्यक्ती सबको समान लेखता है। जो व्यक्ती आनंदी रहता है वह पैसे के पिछे जाता नाही है। अपना जीवन तनाव रहीत जीता है।

तप :- मनुष्य के दैनिक जीवन में प्यास, भूक, निंदा, स्तुती, सुख, दुख, मान, आपमान, हानि, लाभ आदी को विधान मानकर प्रसन्नतासे लेना. दुसरो की भलाई किसमें है यह सोचना इसे तप कहलाता है। तप करनेवाला मनुष्य योगाभ्यास करता है। योग करनेवाले मनुष्य में सहनशक्ती जादा होती है। वह व्यक्ती स्वस्थ, सुन्दर बना रहता है। उनका स्वास्थ्य अच्छा देखकर बाकी मनुष्यभी उसका आचरण करने का प्रयास करते है।

साध्याय :- साध्याय करनेवाला मनुष्य साहित्य का साध्याय करता है। वह हमेशा चिंतन करता है। जिस मनुष्य के आंदर विचार शक्ती दुषीत होती है उस मनुष्य को शरीर में जादा रोग उत्पन होते है। जो मनुष्य योगाभ्यास करता है उसे किसी चिकित्सा की आवश्यकता नहीं है।

ईश्वर :- मनुष्य अपने आपको ईश्वर के प्रति समर्पित करता है। दिन रात ध्यान करता है। बिना स्वार्थ सबकी भलाई चाहता है वह मनुष्य प्रसन्न रहता है। जब व्यक्ती आपको परमात्मा के प्रति समर्पित कर देता है तो उसे कीसी प्रकार की चिन्ता नहीं रहती।

3) आसन :- आसन के अभ्यास से मांस पेशियों तनावमुक्त होती है। जोडो में लचिलापन आता है। शरीर में आन्तरीक रंग प्रभावित होते है। रक्त संचार सुरळीत होता है। शरीर निरोग, स्वस्थ बन जाता है। आसनो के अभ्यासे मन स्थिर होतो है। आसनो का अभ्यास करते समय शरीर को ढीला रखना चाहिए।

4) प्राणायाम :- प्राणायाम के अभ्यास से मनुष्य का मन का संतुलन बना रहता है। राग क्षीण होते है। मन और इंद्रिय शान्त हो जाती है। शरीर बालवान हो जाता है। वात, पित यह दोष कम होते है। शरीर का सभी धातुएँ और मल ठिक कार्य करते है। प्राणायाम से मानसिक एकाग्रता संयम शक्ती प्राप्त होती है। मनुष्य का आयु भी बढ़ जाता है।

5) प्रत्याहार :- प्रत्याहार से इन्द्रियो को अन्तमुख किया जाता है। प्रत्याहार से मनुष्य श्वसनपर नियंत्रण रख सकता है। और इसद्वारे मनके नियमन करनेका शिकाता है। इसे अंतरंग साधना कहलाते है।

- 6) **ध्यान :-** चित एकाग्र करता है । धारणासे मनुष्य ध्यान मग्न हो जाता है। ध्यान और समाधी यह अंतरंग साधना है। इस तीन अंगसे आप और परमात्मा इसमें एकरूपता निर्माण हो जाती है। ध्यान से मन नीरोग स्वस्थ और शान्त बने रह सकते हैं। ध्यान धारणासे ज्ञान और ज्ञेय एक हो जाते हैं।
- 7) **धारणा :-** चित एकाग्र करता है । धारणासे मनुष्य ध्यान मग्न हो जाता है।
- 8) **समाधी :-** परमात्मा और साधक इनकी एकरूपताका अभ्यास करनेकी आत्मा और परमात्मा के ध्यान में लय करने का साधन है।

निष्कर्ष :-

आसनो के अभ्यास से मांस पेशियाँ तनावमुक्त होती हैं। शरीर निरोग, स्वस्थ और सक्रिय बन जाता है। प्रणायाम और आसन करनेसे मानसिक एकाग्रता संयमशक्ती, प्राप्त होने के साथ आयु भी बढ़ जाती है। मनस्थिर होता है।

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यवतमाळ जिल्हयातील जामडोह आणि उंकांडा पोड येथील कोलाम आदीवासी जमातीचे शारीरिक आणि आहार विषयक अध्ययन

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कला महाविद्यालय, यवतमाळ

प्रस्तावना :-

मानवी स्वास्थ्य उत्तम राहण्यासाठी योग्य प्रमाणात आहारातील सर्वच पोषक घटक मिळणे आवश्यक आहे. आहार खुप कमी किंवा जास्त असु नये कारण खुप कमी किंवा जास्त घेतल्यास आरोग्यास हानीकारक असते. आहारावरच पोषण अवलंबुन असते. आरोग्य आणि पोषण या एकाच नाण्याच्या दोन बाजु आहे कारण आहार भुक् शमवितो व त्याचबरोबर त्यातील पोषक घटकांमुळे शरीराची वाढ व विकास होतो. योग्य पोषणसाठी समतोल आहाराची आवश्यकता असते. जीवन जगण्यासाठी विविध अन्नपदार्थांचा आहाराच्या स्वरूपात उपयोग करून मानवी पोषण व आरोग्य प्राप्त होते. मात्र आहार व पोषण या विषयाचे ज्ञान नसल्यामुळे चुकिच्या आहार घेण्याच्या पध्दतीमुळे बरेचसे अन्नघटक आहारातुन वगळले जातात. किंवा प्रमाणपेक्षा जास्त घेतल्या जातात. याचा आरोग्यावर विपरीत परिणाम होतो. जगण्यासाठी अन्नाची गरज आहे व ते शरीरात २२०० ते २४०० कॅलरीज उष्मांक निर्माण होतील एवढे सकस अन्नाचे सेवन करणे आवश्यक आहे. निरोगी जीवनासाठी पोषक आहार आवश्यक असून त्यामुळे मानवाचे स्वतःकडे दुर्लक्ष होते व तो कमी वेळत व जीभेला योग्य वाटणाऱ्या अन्नाचे सेवन करण्याकडे कल वाढला आहे तसेच बाहेर उपलब्ध हॉटेल, उपहार गृह यातील अन्न घेवून, फास्ट फुड, खाऊन चायनीज पदार्थ, तळलेले व मसालेदार पदार्थ घेवून भूक क्षमविण्याचा प्रयत्न करतो. त्यामुळे आरोग्यावर विपरीत परिणाम होवून रक्तदाब,

हृदयरोग, मधुमेह, यासारखे असाध्य आजार बळावतात. तसेच मानवी जीवनातील अनियमितता, ताण तणाव, चुकीच्या सवयी, गैरसमज, अंधश्रध्दा, शारीरिक श्रमाचा अभाव यामुळेही आपण स्वतःहून अनेक आजारांना आमंत्रण देत आहे. सुशीक्षित वर्गात फास्टफुड मुळे अनेक आजार दिसुन येतात तर आदिवासी वर्गात कशाप्रकारचे आरोग्य आणि आहारविषयक जाणिव जागृती आहे ते या संशोधनाद्वारे निष्कर्षात आढळुन येईल.

कोलाम आदीवासी जमातीचे पोषक आहारात समाविष्ट घटक

आपले शरीर सुदृढ ठेवण्याकरीता शरीराला आवश्यक घटकांची पूर्तता करणे गतजेचे आहे. जसे की, हिरव्या पाल्या — भाज्या, कडधान्य, फळे व अंडी, त्यामुळे कोलाम जमातीतील लोक शरीराला पोषक आहारासाठी कशाचा समावेश करतात हे खालील सारणी वरून स्पष्ट होते.

पोषक आहारात समाविष्ट घटक दर्शक सारणी

अ. क्र.	विवरण	वारंवारिता	शेकडा प्रमाण
१	हिरव्या पाल्या भाज्या	२४	२५.५३ :
२	कडधान्य	२८	२९.७८ :
३	फळे व अंडी	१०	१०.६३ :
४	वरिल सर्व	३२	३४.०६ :
	एकुण	९४	१००.०० :

उपरोक्त सारणी विश्लेषणावरून ज्ञात होते की, एकुण उत्तरदात्यापैकी २४(२५.५३ शे. प्र) उत्तरदाते पोषक आहारासाठी हिरव्या पाल्या भाज्याचा समावेश करत असुन २८ (२९.७८ शे. प्र.) उत्तरदाते, पोषक आहारासाठी कडधान्याचा समावेश करतात. १०(१०.६३शे. प्र.) उत्तरदाते पोषक आहारासाठी फळे व अंड्याचा समावेश करत असुन ३२ (३४.०६ शे. प्र.) उत्तरदाते पोषक आहारासाठी वरिल सर्वांचा समावेश करतात. वरिल सारणी विश्लेषणावरून असा निष्कर्ष निघतो की, अधिकांश उत्तरदाते शरीराला आवश्यक सर्व प्रकारच्या पोषक आहाराचा समावेश करतात.

प्राथमिक सुविधा केंद्र

कोलाम या जमातीचे लोक डोंगराळ प्रदेशात वास्तव्य करीत असल्यामुळे त्यांचा संपर्क प्रगत समाजाशी संपर्क कमी प्रमाणात आला. त्यामुळे या क्षेत्रात स्वास्थाचा प्रश्न कठीण झाला आहे. या क्षेत्रात दवाखाने व डॉक्टरांची संख्या फारच कमी आहे. त्यामुळे रोग्याला वैद्यकीय मदत लवकर मिळत नाही. शासनाच्या सोयी, सुविधा त्यांच्या पर्यंत पोहचलेल्या नाही.

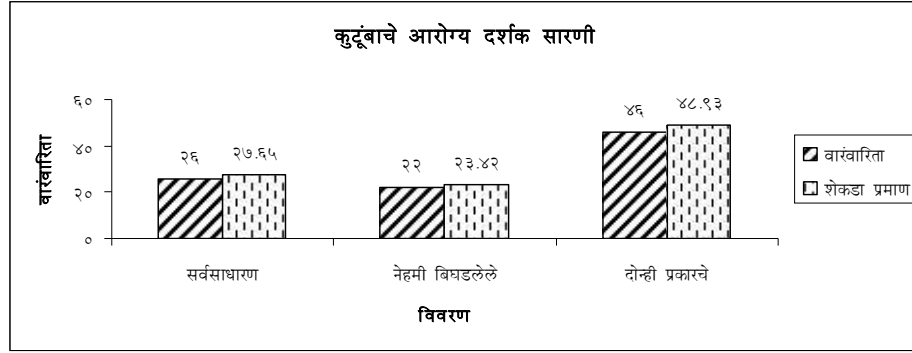
कुटूंबाचे आरोग्य

अस्वच्छता, आंगोळ न करणे, घरातील परिसरात सांडपाणी जमा होणे. इत्यादी विविध कारणांमुळे आरोग्यावर परिणाम पडत असतो. म्हणून कोलाम जमातीतील कुटूंबाचे आरोग्य नेहमी कसे राहते खालील सारणीवरून स्पष्ट होते.

कुटूंबाचे आरोग्य दर्शक सारणी

अ. क्र.	विवरण	वारंवारिता	शेकडा प्रमाण
१	सर्वसाधारण	२६	२७.६५ :
२	नेहमी बिघडलेले	२२	२३.४२ :
३	दोन्ही प्रकारचे	४६	४८.९३ :
	एकुण	९४	१००.००

उपरोक्त प्रश्नावर असे ज्ञात होते की, एकुण उत्तरदात्यांपैकी २६ (२७.६५ शे. प्र.) उत्तरदात्यांच्या कुटूंबाचे आरोग्य नेहमी सर्वसाधारण असून २२ (२३.४२ शे. प्र.) उत्तरदात्यांच्या कुटूंबाचे आरोग्य नेहमी बिघडलेले असते. तर ४६ (४८.९३ शे. प्र.) उत्तरदात्यांच्या कुटूंबाचे आरोग्य नेहमी दोन्ही प्रकारचे असते. वरिल सारणी विश्लेषणावरून असा निष्कर्ष निघतो की, आरोग्य नेहमी बिघडलेले उत्तरदात्याचे कुटूंब कमी असून दोन्ही प्रकारचे आरोग्य असणारे कुटूंब सर्वाधिक आहे.



कुटूंबातील सदस्य आजारी असल्यास उपचार माध्यम

धकाधकीच्या आयुष्यात मनुष्य हा जीवन जगत असतांना त्याच्या शरीरावर त्याचा परिणाम होतो व त्याला चांगले आयुष्य जगण्याकरीता सुदृढ शरीराची आवश्यकता असते. त्यामुळे कुटूंबातील सदस्य आजारी असल्यास उपचाराकरीता कोणाकडे नेतात हे खालील सारणी वरून स्पष्ट होते

कुटूंबातील सदस्य आजारी असल्यास माध्यम दर्शक सारणी

अ. क्र.	विवरण	वारंवारिता	शेकडा प्रमाण
१	डॉक्टर	१८	१९.१४ :
२	तांत्रिक	०८	८.५१ :
३	घरगुती उपचार	६८	७२.३५ :
	एकुण	९४	१००.००

उपरोक्त प्रश्नावर असे ज्ञात होते की, एकुण उत्तरदात्यांपैकी १८ (१९.१४ शे. प्र.) उत्तरदात्यांच्या कुटूंबातील सदस्य आजारी असल्यास त्याला उपचाराकरीता डॉक्टर कडे नेतात. ०८ (०८.५१ शे. प्र.) उत्तरदात्यांच्या कुटूंबातील सदस्य आजारी असल्यास त्याला उपचाराकरीता तांत्रिक कडे नेतात तर ६८ (७२.३५ शे. प्र.) उत्तरदात्यांच्या कुटूंबातील सदस्य आजारी असल्यास त्याला घरगुती उपचार करतात. वरिल सारणी विश्लेषणावरून असा निष्कर्ष निघतो की, कमीत कमी उत्तरदाते कुटूंबातील सदस्य आजारी असल्यास उपचाराकरीता तांत्रिक कडे नेतात तर अधिकांश उत्तरदाते घरगुती उपचार घेतात.

व्यसना मागील कारण

व्यक्तीला अनेक व्यसने असतात परंतु ही व्यसने प्रथम व्यक्ती स्वतः करत नाही तर त्यांना कारणीभूत असतात. आणि या गोष्टी मुळेच त्यांना व्यसन लागते थकवा दुर करण्यासाठी काहीतरी व्यसन करण्यास सुरुवात करतात आणि ती

सवय त्यांच्या आरोग्यावर वाईट परिणाम करते. म्हणून व्यसनाची सवय कशी लागली हे जाणून घेण्यासाठी प्रश्न विचारले आहे.

व्यसनामागील कारण दर्शक सारणी

अ. क्र.	विवरण	वारंवारिता	शेकडा प्रमाण
१	अनुकरणाने	२६	३५.१३
२	कामाचा थकवा जाण्यासाठी	३२	४३.२४
३	चांगले वाटते म्हणून	१६	२१.६३
	एकुण	७४	१००.००

वरिल विश्लेषणावरून असा निष्कर्ष निघता की, सर्वाधिक उत्तरदाते व्यसन कामाचा थकवा घालविण्यासाठी करतात.

व्यसनाचा आरोग्यावर परिणाम

जो व्यक्ती व्यसन करतो तो संपूर्ण व्यसनाच्या आहारी जातो. आणि शारीरिक, कौटूंबिक या गोष्टी पासून दुरावल्या जातो. या व्यसनाने आरोग्यावर काय परिणाम होतो याचे अध्ययन करणे आवश्यक आहे.

एकुण उत्तरदात्यापैकी (६.३८शे.प्र.) उत्तरदात्याला व्यसनाने छातीचा त्रास उदभवला असून (१४.८९शे.प्र.) उत्तरदात्याचा स्वभाव व्यसनाने चिडचिडा झाला तर (१७.०२शे.प्र.) उत्तरदात्याला व्यसनाने भूक लागत नसून (१२.६८शे.प्र.) उत्तरदात्याला व्यसनाने पोटाचा त्रास उदभवला आहे. (२७.६८शे.प्र.) उत्तरदात्याला व्यसनाने काहीच झाले नसून (२१.२७शे.प्र.) उत्तरदात्याला हा प्रश्न लागू होत नाही.

व्यसन मुक्तीच्या दृष्टीने प्रयत्न

व्यसन सोडतांना व्यक्ती विविध उपाय करतो त्या दृष्टीने व्यसनमुक्ती केंद्राशी संपर्क करतो विविध औषधोपचार करतो आवश्यक वेळी इतरांचे मार्गदर्शन घेतो व स्वतःला व्यसनापासून दूर ठेवण्याचा प्रयत्न करतो. तर काही व्यसनाधीन व्यक्ती वेगवेगळ्या कार्यांमध्ये स्वतःला गुंतवून घेतात. या व्यसनाचा आरोग्यावर परिणाम होतो व आरोग्या दृष्ट्या व्यक्ती खंगत गेलेला दिसून येतो. या व्यसनाचा मुक्ती करण्यासाठी बरेचशे प्रयत्न करतात. तसेच अनेक जण प्रयत्न करत नाही. तर काहींचा व्यसनाशी संबंध येत नाही.

कुटूंबातील स्त्रियांचे व्यसन

मानवी समाज संस्थेच्या आरंभापासून व्यसनांची ओळख इतिहासाला आहे विविध धर्म संस्कृती देशांच्या इतिहासावर स्पष्ट होते. औद्योगिकीकरण महायुद्धे यानंतर व्यसनाचा दाहक परिणामांची समाजात झळ बसू लागली पण जाग आली नाही. माहिती तंत्रज्ञानाच्या वेगवान शोधामुळे व्यसनांची स्फोटकता वाढू लागल्याने सर्वांनाच गंभीर दखल घ्यावी लागत आहे. विशेषतः महिला व लहान मुले हि व्यसनांचे लक्ष ठरू लागली आहेत. एकुण उत्तरदात्यापैकी (२९.७९शे.प्र.) उत्तरदात्याच्या कुटूंबातील स्त्रीया तंबाखूचे व्यसन करत असून (२१.२७शे.प्र.) उत्तरदात्याच्या कुटूंबातील स्त्रिया गूटख्याचे व्यसन करतात. (८.५१शे.प्र.) उत्तरदात्याच्या कुटूंबातील स्त्रिया दारूचे व्यसन करत असून (४०.४४शे.प्र.) उत्तरदात्याच्या कुटूंबातील स्त्रिया कुठलेच व्यसन करत नाही.

वरिल सारणी विश्लेषणावरून असा निष्कर्ष निघतो की, कोलाम जमातीतील कुटूंबातील स्त्रियांना सुद्धा अधिक प्रमाणात तंबाखू, गूटखा, दारू, या व्यसनाची सवय आहे.

लसीकरण

लसीकरणांमुळे माता व बालकांचे संरक्षण होते लसी करणांमुळे बालकांच्या शरीरात त्या विशिष्ट रोगाविरुद्ध लढण्याची प्रतीकार शक्ती निर्माण होते. ती लस डॉक्टरांकडून घेणे अतिशय महत्त्वाचे आहे. तसेच मुलांना पोलीओ, डांग्या खोकला, धनुर्वात किंवा गोवर सारखे रोग होऊ नयेत म्हणून इंजेक्शन किंवा तोंडातून जी रोग प्रतीबंधक लस दिली जीते त्याला लसीकरण म्हणतात.

निष्कर्ष —

आदिवासी कोलाम जमात हि शहरी भागाशी संपर्कात येत असल्यामुळे आणि शेती करत असल्यामुळे शरीराला आवश्यक सर्व प्रकारच्या पोषक आहाराचा समावेश करतांना आढळून येतात. या आदिवासी भागात आरोग्य केंद्र नसल्यामुळे रोग्याला वैद्यकीय मदत लवकर मिळत नाही. तसेच कुटूंबातील सदस्य आजारी असल्यास उपचाराकरीता तांत्रिका कडे नेतात तर अधिकांश उत्तरदाते आयुर्वेदीक झाडपत्ती औषध घेतात. याप्रकारे घरगुती उपचार घेतात. शासनाच्या सोयी, सुविधा त्यांच्या पर्यंत अजूनही पोहचलेल्या नाही. यवतमाळ शहरातील सांडपाणी नाल्याद्वारे या भागात वाहत येते व हे पाणी आदिवासी लोक वापरतात. विहिरीचे पाणी सुद्धा दुषित आहे तसेच अस्वच्छता, आंघोळ न करणे,

घरातील परिसरात सांडपाणी जमा होणे यामुळे शरीरावर दुष्परीणाम आढळून येतात. इत्यादी विविध कारणांमुळे हे आजारी पडत असतात. तसेच रूढी परंपरा यांच्या नुसार हे विशेष सणांना तसेच धार्मिक उत्सवांना व्यसन करतात. या व्यसनाचा आरोग्यावर परिणाम होतो. विशेषतः महिला व लहान मुले हि व्यसनांचे लक्ष ठरू लागली आहेत. व्यसनमुळे आजार होतात याची जाणीव नाही व लहान-लहान मुले सुध्दा गुटखा तंबाखु सारखे व्यसन करतांना आढळतात. शिक्षण विषयक कमी कल आढळून येतो.

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क्रिडाक्षमता वाढीमध्ये पोषणाची भूमिका**डॉ.रोहिणी दि.मेश्राम**

कला, वाणिज्य विज्ञान महाविद्यालय आर्वी जि.वर्धा

डॉ.विजया यादवराव मुळे

कला, वाणिज्य विज्ञान महाविद्यालय आर्वी जि.वर्धा

प्रास्ताविक:

वर्तमानकाळात खेळाला विशेषमहत्व येत आहे त्यामुळे खेळाडूंच्या प्रशिक्षणवर विशेष भर भारतात क्रिडा मंत्रालय देत आहे. यामध्ये विविध स्पर्धा आयोजित करणे याशिवाय विविध प्रशिक्षण केंद्राची स्थापना केली जात आहे. खेळाडूंना आपला सर्वोत्तम प्रदर्शन देण्यासाठी प्रशिक्षणाबरोबरच योग्य पोषणाचीही आवश्यकता असते. खेळाडूंना योग्य पोषणयुक्त आहार देणे आवश्यक असते. खेळाडूंना आपला सर्वोत्तम प्रदर्शनदेण्यासाठी प्रशिक्षणाबरोबरच योग्य पोषणाचीही आवश्यकता आहे. खेळाडूंना योग्य पोषणयुक्त आहार मिळायला हवा याबाबत जागरूकता निर्माण होत आहे. विविध संशोधनाद्वारे असे सिद्ध झाले आहे की पोषणयुक्त आहाराने स्वास्थ्य तर उत्तम राहतेच पण त्याबरोबरच मानवाची कार्य करण्याची क्षमता, व्यायाम करण्याची क्षमता, यावरही पोषणयुक्त आहाराचा प्रभाव पडतो. केवळ आहार उत्तम घेतल्याने खेळाडूत सुधारणा होणार नाही. परंतु खेळाडूचे प्रदर्शनसुधारण्याकरता उत्तम होण्याकरिता आहार व पोषण हा एक घटक आहे. संतुलित आहारामुळे खेळाडूंची खेळातील लवचिकता, चपळता, वेग, शक्ती, सहनशक्ती यामध्ये लक्षणीय बदल आढळून येतो. खेळाडूंच्या अगोदर खेळाडूंच्या दरम्यान आणि खेळाडूंच्या किंवा स्पर्धांतर संतुलितआहार घेणे आवश्यक असते. भारतात एकापेक्षा अनेक खेळ खेळले जातात. परंतु जर योग्य पोषक तत्वांचा वापर होत नसेल तर आपल्या खेळाडूंचा व खेळाडूंचा विकास होणार नाही. आपले शरीर एक मशिनआहे व ते चालविण्यासाठी पोषणरूपी इंधनाची आवश्यकता आहे. क्रिडापोषण क्रिडा प्रदर्शनामध्ये एक महत्वाची भूमिका बजावते. विद्यार्थ्यांना विविध खेळ प्रकारामध्ये प्रेरणा देतांना त्यांच्या आहाराकडेही लक्ष देणे आवश्यक ठरते, जेणेकरून विद्यार्थ्यांनामधील उत्कृष्ट खेळाडू पुढे येतील. त्यामुळे खेळाडूंच्या तसेच सर्वांच्या दृष्टीने संतुलितआहार व पोषणाचे महत्व अनन्यसाधारण आहे.

प्रस्तुत शोधनिबंधामध्ये क्रिडा कामगिरीमध्ये पोषणाची भूमिका अभ्यासली आहे. यामध्ये संतुलित पोषणाचे महत्व विविध प्रकारामध्ये अभ्यासले आहे.

मुख्य शब्द: पोषण, संतुलितआहार, पोषण आणि खेळाडूंची कामगिरी, कार्बोहाइड्रेट्स किंवा कर्बोदके ,प्रोटीन

शोधनिबंधाची उद्दिष्ट्ये:

प्रस्तुत शोधनिबंधाची उद्दिष्ट्ये थोडक्यात पुढीलप्रमाणे आहेत.

1. क्रिडा कामगिरीमध्ये पोषणाची भूमिका अभ्यासणे
2. संतुलितपोषणाचे महत्व अभ्यासणे
3. खेळाडूंकरिता आवश्यक असलेल्या आहाराबाबत अभ्यास करणे.

संशोधन पध्दती:

सदर शोधनिबंधामध्ये द्वितीय तथ्य संकलन पध्दतीद्वारे माहिती गोळा केली आहे. यामध्ये विषयावरील संबंधितग्रंथ-पुस्तके, अहवाल, विविध संकेतस्थळावरील शोधनिबंध यातील माहिती अभ्यासासाठी घेतली आहे. त्याचप्रमाणे आहारासंबंधी व पोषणासंबंधी झालेली अभ्यासे व संशोधनहातील माहिती अभ्यास उद्देशासाठी वापरण्यात आली आहे.

अनेक अभ्यासावरून असे आढळून आले आहे की, क्रिडा कामगिरीमध्ये पोषण एक महत्वाची भूमिका बजावते. उच्च दर्जाचे कर्बोदकांसारखे संपूर्ण धान्य, पालेभाज्या आणि फळ महत्वाचे आहेत कारण ते शरीराला फायबर, जीवनसत्त्वे आणि खनिजे देखील प्रदान करतात जे निरोगी आरोग्यासाठी आवश्यक असतात. बहुतांश खेळाडू खेळाडूंच्या तयारीच्या अगोदर किंवा सरावादरम्यान प्रथिने आणि कर्बोदकांकडे दुर्लक्ष करतात. त्यामुळे खेळाडूंचे प्रदर्शन बिघडते. आहारामध्ये प्रथिने आणि कर्बोदके

घेतली नाही तर खेळाडू त्वरीत थकून जातात. षरीरातील स्नायू मजबूत ठेवण्यामध्ये प्रोटीन महत्वाची भूमिका बजावते. आहारामध्ये योग्य जीवनसत्वे घेतली गेली नाही तर खेळाडूंच्या कार्यक्षमतेवर विपरित परिणाम होवून प्रदर्शन बिघडू शकते. खेळाडूने खेळ किंवा सामन्यापूर्वी तसेच सामन्यानंतर आपल्या आहारावर लक्ष देणे आवश्यक ठरते. खेळादरम्यान व खेळानंतर पोषण कसे असावे याबाबत सविस्तर मार्गदर्शन व समुपदेशनासाठी रजिस्टर्ड डायटेशियनशि संपर्क करणे आवश्यक असते. त्यासाठी क्रिडापोषण प्रशिक्षण कार्यक्रम आयोजित करणे देखील आवश्यक असते. कमकुवत पोषणामुळे खेळादरम्यान शरीर साथ देत नाही व दुखापत थकवा आणि खराब प्रदर्शन होऊ शकते. निरोगी आहार आणि कार्यक्षमता आहार हा एकमेकांपेक्षा वेगळा नसतो. खेळाडूंकरिताचे पोषण कार्बोहायड्रेट्सपेक्षा इंधन क्रियाकलाप आणि मांसपेशियांस संक्रमित करण्यासाठी प्रथिनांपेक्षा अधिक महत्वाचे सूद्धा मानले जाते. हाडांच्या आरोग्यासाठी कॅल्शियम आणि व्हिटॅमिन डी, रोगप्रतिकारक शक्तीस मदत करण्यासाठी थकवा आणि अँटिऑक्सिडंट्स टाळण्यासाठी पुरेसा लोह आवश्यक घटक मानला जातो. स्पोर्ट्स डायटेटिक्समध्ये बोर्ड प्रमाणित तज्ञ हे खेळाडूंना किंवा खेळाडूंना त्यांच्या विशिष्ट प्रशिक्षण पद्धती, वय आणि लैंगिक आवश्यकतांच्या अनुरूप कार्यप्रदर्शन आहार तयार करण्यास मदत करू शकतात. योग्य पोषण हे कोणत्या आधारावर क्रिडा प्रदर्शन तयार केले जाते यावर आधारित आहे. योग्य पौष्टिक आहार घेण्याचे असंख्य आरोग्यविशयक फायदे आहेत जे आपल्याला मानसिक आणि शारीरिकरित्या चांगले ठेवतात. योग्य पोषण म्हणजे स्वतःची उपासमार करणे नव्हे, तर त्याऐवजी कमी प्रथिने, आणि चरबीयुक्त पदार्थांचे संतुलितप्रमाणात आपल्या आहारामध्ये उपयोग करणे होय.

खेळाडूंकरिता आहारासंबंधी आवश्यक सूचना

- 1) प्रशिक्षक, आहारतज्ज्ञ व डॉक्टरांचा सल्ला पाळावा
- 2) संपूर्णदिवसभरात दोन किंवा तीन जेवणा ऐवजी कमी प्रमाणात अधिकदा जेवण करावे
- 3) स्पर्धेपूर्वी तीनतास आधी शेवटचे जेवण घ्यावे व या आहारत अधिक कर्बोदके, कमीप्रमाणात स्निग्धपदार्थ व प्रथिने असावीत जास्तप्रमाणात तेल व मसाले नसावेत.
- 4) अधिक कर्बोदके असलेला आहार असल्यास,
- 5) प्रथिने, जीवनसत्व व खनिजे योग्य प्रमाणात असावीत.
- 6) जडान्न टाळावीत
- 7) अल्कोहोलचे सेवन करू नये, कारण सेवन केल्यास त्याचा परिणाम शरीरावर होतो.
- 8) स्पर्धेचा कालावधी अधिक असल्यास आहारामध्ये शर्करायुक्त द्रव्य घ्यावे त्यामुळे खेळातील प्रदर्शन सुधारते

विविध गटातील खेळाडूंकरिता आवश्यक पोषक घटक

गट	प्रथिनेग्रॅम	स्निग्ध	Calcium gm.	लोहमिग्र.	श्रेसिल ug	जी.ब1 mg	जी.ब2 mg	तिआर्यन
I	225	200	85	85	2500	6	6	60
II	195	144	75	75	2000	5	5	50
III	160	120	60	60	1500	4	4	40
IV	135	1-5	50	50	1000	3	3	35
V								

संतुलितपोषणाचे महत्व(Importance of Balanced Nutrition) :

हृदयाचे आरोग्य(Heart Balance):

चरबी, कोलेस्ट्रॉल आणि सोडियममध्ये कमी आहार हा हृदयरोगाचा धोका कमी करू शकतो. आपल्या आहारातील चरबीचेप्रकार आपल्या जोखीम पातळीवर प्रमुख भूमिका बजावतात. संपृप्त आणि ट्रान्स फॅट्स – सामान्यतः लाल मांस, तळलेले अन्न, नारळ तेल, पाम तेले, मार्जरीन आणि पॅकेज्ड स्नॅक पदार्थांमध्ये आढळतात. त्यामुळे हृदयरोगाच्या जोखीम कमी करणारी

आहार फळे, भाज्या, संपूर्णधान्य आणि कमी चरबीयुक्त डेअरीचे पदार्थ यांचा आहारात खेळाडूंनी तसेच सर्वांनीच वापर करणे आवश्यक आहे. दररोज फळे चार ते पाच वेळा आणि भाज्या चार ते पाच वेळा खाण्याचा सल्ला डायटेशियन तज्ञांकडून खेळाडूंना दिला जातो जेणेकरून त्यांची खेळाची क्षमता वाढेल.

हाड आणि दातांची क्षमता (Bones and Teeth's capacity):

कॅल्शियमसमृद्ध असलेले आहार आपल्या हाडे आणि दात मजबूत ठेवते आणि ऑस्टियोपोरोसिसशी संबंधित हाडांच्या हानीस प्रतिबंध करण्यास मदत करते. दूध, चीज आणि दहीयांसारखे कमी चरबीयुक्त दुग्धजन्यपदार्थ, ब्रोकोलीसारख्या गडद हिरव्याभाज्या, फळांचेरस आणि अन्नधान्य यांसारख्या मजबूत खाद्यपदार्थ कॅल्शियमचे चांगले स्रोत आहेत. रोगनियंत्रण आणि प्रतिबंध केंद्रे 19 ते 50 वयोगटातील सरासरी प्रौढांसाठी दररोज 1000 मिलीग्रॅम कॅल्शियमची आवश्यकता असते. व्हिटॅमिन 'डी' आपल्या शरीराला कॅल्शियम शोषण्यास मदत करते. आपल्याला पोषण संतुलित करण्यासाठी व्हिटॅमिन 'डी' सह सशक्त उत्पादनांचा आहारामध्ये वापर करणे आवश्यक आहे.

उच्च ऊर्जा पातळी (High Energy Level)

वाढीव ऊर्जापातळी स्वस्थ आहारासाठी आवश्यक आहे. अतिरिक्त चरबी, शुगर आणि परिष्कृत कार्बोहायड्रेट्स नष्ट करणे रक्तातील साखर उतार-चढावरोखण्यात मदत करते. शुद्ध कर्बोदकांमध्ये उदाहरणे म्हणजे पांढरे ब्रेड, संपूर्णधान्य, फळे आणि भाज्यायासह असुरक्षित कर्बोदकांमध्ये सर्वात पोषक आहे. यामुळे आपल्याला परिणामस्वरूप सतत रक्तशर्करा आणि स्थिरऊर्जास्तर कायम ठेवण्याची अनुमती मिळते. तहान, वारंवार जेवण ऊर्जा राखण्यास मदत करतात. याव्यतिरिक्त, निरोगी नाश्ता खाणे आपल्याला संपूर्णदिवसभर उत्साहित ठेवण्यास मदत करते. अमेरिकन काउन्सिल ऑन एक्सरसाइझने ब्रेक फास्ट्स, जसे फळे किंवा लाइट सँडविचची शिफारस केली आहे.

वजन नियंत्रण (Weight Control)

खेळाडूंचे कार्यप्रदर्शन सुधारण्यासाठी शरीराचे वजन संतुलित ठेवणे आवश्यक आहे. आपल्या शरीराचे वजन फार कमी ठेवणे, वजन खूपच कमी होणे किंवा एखाद्या अनैसर्गिक मार्गाने वजन वाढविणे यामुळे आरोग्यावर नकारात्मक प्रभाव पडतो. यथार्थवादी शरीराचे वजनावर नियंत्रण ठेवणे हे महत्वाचे आहे. वजन कमी करण्याचा प्रयत्न करणा-या खेळाडूंनी आहारतज्ञांकडून सल्ला घेणे आवश्यक ठरते. अनियमित खाण्याच्या सवयींमुळे, अपर्याप्त किंवा जास्त पोषक तत्वांचा सेवनामुळे वजन अनियंत्रित होवू शकते. निरोगी आणि पोषक-घनपदार्थ, जसे फळे, भाज्या, संपूर्णधान्य आणि प्रथिने इत्यादींचा आहारामध्ये उपयोग करणे आवश्यक असते. परंतु खेळाडूंकडून विशेषतः सोडा, मिठाई आणि फास्टफूडचे सेवन होतांना दिसते हयामध्ये जेवणापेक्षा कमी कॅलरी असतात हयाचा खेळाडूंनी विचारकरणे आवश्यक आहे. जास्त फास्टफूडमुळे लठ्ठपणा, मधुमेह, क्लॉज्ड आर्टरीज आणि थायरॉईड डिसफंक्शन यासारख्या आजाराचा धोका निर्माण होवू शकतो.

पोषण आणि खेळाडूंची कामगिरी (Nutrition and athletic performance):

योग्य पोषण खेळाडूंची कामगिरी वाढविण्यात मदत करू शकते. एक सक्रिय जीवनशैली आणि नियमित व्यायाम तसेच योग्य आहार हे निरोगी राहण्याचा सर्वोत्तम मार्ग आहे. चांगला आहार करणे आपल्याला एखादी स्पर्धा पूर्ण करण्यासाठी आवश्यक असलेली ऊर्जा प्रदान करण्यात मदत करू शकते किंवा फक्त अनौपचारिक खेळ किंवा गतिविधीचा आनंद घेऊ शकते. जेव्हा आपल्याला पुरेसा आहार मिळत नाही तेव्हा आपल्याला थकल्यासारखे आणि खेळांच्या दरम्यान खराब प्रदर्शन करण्याची अधिक शक्यता असते. खेळाडूसाठी कॅलरी, कर्बोदके, द्रवपदार्थ, लोह, जीवनसत्त्वे आणि इतर खनिजे, प्रथिने इत्यादींची गरज असते.

खेळाडूसाठीचा युक्ततम आहारहा सामान्य व्यक्तीपेक्षा वेगळा नसतो. खेळाडूंना आवश्यक असलेला आहारहा खेळाचा प्रकार, आपण करत असलेल्या प्रशिक्षणांची संख्या, व्यायामासाठी घालवलेला वेळ याचा विचार करणे देखील महत्वाचे असते. कोणत्याही खेळासाठी सराव आवश्यक असतो परंतु सरावामुळे कॅलरीज किंवा उष्मांक खर्च होतो जो योग्य

पोशणआहारामुळे भरून निघू शकतो. आपल्याला चांगले कार्य करायचे असल्यास किंवा खेळासाठी तयार व्हायचे असल्यास रिकाम्यापोटाने व्यायाम करणे टाळणे आवश्यक असते. तरिदेखील प्रत्येकाच्या शरीराची ठेवण वेगळी असल्यामुळे आपल्याला आहाराबाबत जाणून घेणे आवश्यक आहे. व्यायाम करण्यापूर्वी कितीवेळा आपण खाणे चांगले आहे हे पाहणे आवश्यक आहे.

कार्बोहायड्रेट्स किंवा कर्बोदके(Carbohydrates):

व्यायामाच्या दरम्यान उष्मांक पुरवण्यासाठी कर्बोदकांची आवश्यकता आहे. कर्बोदके ही बहुतेक स्नायू आणि यकृतमध्ये साठवले जातात. पास्ता, बॅगेल्स, संपूर्णधान्य ब्रेड आणि तांदूळयासारख्या अन्नामध्ये कर्बोदके आढळतात. ते ऊर्जा, फायबर, जीवनसत्त्वे आणि खनिजे प्रदान करतात. कर्बोदकांपासून आपल्या अर्ध्याहून अधिक कॅलरीज आहारामध्ये आल्या पाहिजेत. आपण 1 तासांपेक्षा अधिककाळ व्यायाम केल्यास व्यायाम करण्यापूर्वी आपण आहारामध्ये कर्बोदकांचा समावेश आवश्यक आहे. आपल्याकडे कदाचित एक ग्लास फळांचा रस, एक कप (245 ग्रॅम) दही किंवा जेली पुरेसे असते. खेळाडू इव्हेंटच्या म्हणजे खेळाच्या आधी कोलेस्ट्रॉल संतुलित ठेवणे आवश्यक असते. जर आपण तीव्र एरोबिक व्यायाम एका तासांपेक्षा अधिक करत असाल तर आपल्याला व्यायामादरम्यान कर्बोदके देखील आवश्यक असतात. प्रत्येक 15 ते 20 मिनिटांत क्रिडा किंवा सरावदरम्यान पिण्याचे पाचते 10 औन्स (150 ते 300 मिलीलीटर) पाणी पिणे आवश्यक असते. जे लोक 90 मिनिटांहून अधिककाळ व्यायाम करतात त्यांना 2 तासांनंतर प्रोटीनसह अधिक कर्बोदकांची आहारामध्ये आवश्यकता असते.

प्रोटीन (Protein)

स्नायूंच्यावाढीसाठी प्रोटीन महत्त्वपूर्ण आहे. शरीराद्वारे प्रोटीनचा वापर उर्जेसाठी केला जातो, परंतु कार्बोहायड्रेट शरीरामध्ये साठवून ठेवणे आवश्यक असते. पण हे एक मिथक आहे की उच्च-प्रथिने आहार मांसपेशीवाढीस प्रोत्साहन देतात. त्याशिवाय व्यायामामधून स्नायू बळकट होवू शकतो. बदलू शकतात. खेळाडूंना, अगदी बॉडीबिल्डर्सला स्नायूंच्या वाढीसाठी फक्त थोडेसे अतिरिक्त प्रोटीन आवश्यक आहेत. अधिक प्रमाणात कॅलरीचे (अधिक अन्न खाणे) सेवनाद्वारे खेळाडू प्रोटीनची ही वाढलेली गरज पूर्ण करू शकतात. बहुतेक अमेरिकन लोक आधीच स्नायूंच्या विकासासाठी आवश्यकतेपेक्षा दोनदा जास्त आहारामध्ये प्रथिने घेतात. आहारात जास्तप्रमाणात प्रथिनांचा वापर झाल्यास शरीरातील चर्बीवाढून लठ्ठपणा येवू शकतो, कॅल्शियम कमी होऊ शकते आणि मूत्रपिंडांवर अतिरिक्तभार देखील पडू शकतो. आहारशास्त्रानुसार अमीनोएसिडपूरक असणारे पदार्थ आणि भरपूर प्रथिने खाणे हे देखील योग्य नाही.

पाणी आणि इतर पेये(Water and Other Fluids):

खेळाडूसाठी पाणी सर्वात महत्वाचे असूनही पाणी एक दुर्लक्षित पोषकतत्व म्हणून ओळखले जाते. कारण पाण्याकडे बरेचदा दुर्लक्ष केले जाते. शरीरात हायड्रेटचेप्रमाण संतुलित ठेवण्यासाठी पाण्याची आवश्यकता असते. एका तासाच्या व्यायामाने आपल्या शरीरात अनेक लिटर घाम येऊ शकतो हा घाम येणे आहारशास्त्रानुसार चांगले असते. तसेच स्वच्छ मूत्रयेणे हे देखील एक चांगले चिन्ह असते जे निरोगी शरीराचे लक्षण असते. खेळाडूने आपल्या आहारामध्ये भरपूर पाणीरूपीद्रवपदार्थ पीत आहोत याची खात्री करणे आवश्यक असते. यामध्ये ज्यूस, फळांचेरस इत्यादींचा समावेश आहारात करावा. खेळाडूने कसरत करण्यापूर्वी सुमारे 2 औन्स (2 कप) किंवा 480 मिलीलीटर पाणी आपल्या शरीरात पुरेशी पाणी वापरणे महत्वाचे आहे. आपण व्यायाम केल्यानंतर आणि किंवा व्यायाम करतांना प्रत्येक 15-20 मिनिटे द्रवपदार्थ 2 ते 1 कप (120 ते 240 मिलीलीटर) घेणे आवश्यक आहे. पहिल्या तासासाठी पाणी सर्वोत्तम आहे, पहिल्यातासानंतर पाणी पिल्याने खेळाडूला पुरेसे इलेक्ट्रोलाइट मिळविण्यात मद होते. आपल्याला तहान नसताना देखील पाणीपिणे आवश्यक असते. बरेचदा खेळाडू डोक्यावर पाणी टाकतात यामुळे त्यांना चांगले वाटू शकते, परंतु शरीरात पाण्यातून द्रव मिळत नाही. व्यायाम करताना आपण दर पाउंड (450 ग्रॅम) गमावल्यास आपण पुढच्या 6 तासांत 16 ते 24 औन्स (480 ते 720 मिलीलीटर) किंवा 3 कप (720 मिलीमिलीटर्स) द्रवपदार्थ पिणे आवश्यक असते.

थोडक्यात,

खेळाडूंची खेळामधील प्रदर्शन उच्चतम होण्यामध्ये योग्य पोषण हे महत्वाची भूमिका बजावते. क्रिडा पोषण क्रिडा प्रदर्शनामध्ये एक महत्वाची भूमिका बजावते. विद्यार्थ्यांना विविध खेळ प्रकारामध्ये प्रेरणा देतांना त्यांच्या आहाराकडेही लक्ष देणे आवश्यक असते, जेणेकरून विद्यार्थ्यांमधील उत्कृष्ट खेळाडू पुढे येईल. त्यामुळे खेळाडूंच्या तसेच सर्वांच्यादृष्टीने संतुलित आहार व पोषणाचे महत्व अनन्यसाधारण आहे.

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वृद्धावस्था या काळातील शारिरीक बदलामुळे उद्भवणाऱ्या शारिरीक समस्या व त्यावरील उपाययोजना

प्रा.शारदा सु.डांगे

गृहअर्थशास्त्र विभाग प्रमुख

श्री.डॉ.आर.जी.राठोड कला व विज्ञान महाविद्यालय मुर्तिजापुर जि.अकोला.

प्रस्तावना-

मानवाची वाढ व विकास हा सतत चालू असतो.विकासाच्या अनेक अवस्था असून प्रत्येक बालकाला या अवस्थेतून जावे लागते.या प्रत्येक अवस्थेतून जात असतांना त्यांच्यात शारिरीकमानसिक,भावनिक असे अनेक बदल होत असतात आणि हे बदल परिपक्वतेच्यादृष्टीने अत्यंत महत्वाचे असतात.अशा या अवस्थेमधील सर्वात शेवटची अवस्था म्हणजे वृद्धावस्था होय.

वृद्धावस्था ही एक नैसर्गिक अवस्था असून प्राणांच्या व माणसाच्या आयुष्यातील प्रौढावस्थेनंतरचा कालावधी आहे.साधारणतः आयुष्याच्या ६० व्या वर्षापासून ते मृत्युपर्यंतचा हा कालखंड असतो.शरीराच्या इतर विकास अवस्थेप्रमाणे वृद्धावस्थेची सुरवात होण्याचे वय स्थळकाळ व सामाजिक परिस्थिती यानुसार बदलते. वृद्धत्व हे व्यक्तिच्या प्रकृतीवर तसेच आयुष्यात आलेल्या अनुभवांवर अवलंबू असते.निवृत्त होण्याचे वय ६० वर्षे असते. म्हणजे निवृत्त होण्यानंतरचा जो काळ असतो त्यालाच वृद्धावस्था असे म्हणु शकतो.आणि अशाच व्यक्तिला जेष्ठ नागरीक असे संबोधले जाते. वृद्धावस्थेमध्ये अनेक शारिरीक व मानसीक बदल होतात.या काळात त्वचेवर सुरकृत्या पडतात.शरीरातील विविध संस्था नीट काम करू शकत नाही.शरीर रोग व आजार यांनी बळी पडण्याची शक्यता अधिक असते.आणि अशा अवस्थेत मृत्यु सुद्धा येऊ शकतो

वृद्धावस्था किंवा म्हातारपण ही जीवनाची अशी अवस्था असते ज्यात मानवाचे वय अधिक वाढलेले असते. वृद्धावस्था एक हळूहळू येणारी अवस्था असून ती एक स्वाभाविक व नैसर्गिक घटना आहे वृद्ध या शब्दाचा अर्थ म्हातारा,परिपक्व असा होतो. जसे झाडाला एखादे फळ लागले आणि ते पिकत पिकत जाऊन अतिप्रमाणात पिकले तर ते गडून पडते. त्याच प्रमाणे ही वृद्धावस्था असते. ही अवस्था पृथ्वीवरील प्रत्येक मानवप्राण्यांच्या वाटयाला येत असते. त्यामुळे प्रत्येकांनी आपल्या जीवनात येणा-या वृद्धावस्था या अवस्थेचा विचार आधीच करावा.कारण वृद्धावस्थेत अनेक समस्या उदभवतात त्या समस्या राहण्यापासून ते खाण्यापर्यंतच्या अशा अनेक समस्यांना सामोरे जावे लागते

उद्दिष्ट:-

- १) वृद्धावस्था या काळातील लोकांविषयी समजून घेणे
- २) वृद्धावस्था या काळातील आहाराअभावी उदभवणा-या समस्या अभ्यासणे.
- ३) वृद्धावस्था या काळातील समस्यांवर उपाययोजना सुचविणे

वृद्धावस्थेतील आहाराविषयी समस्या व उपाययोजना:

भारतीय कुटुंबामध्ये वृद्धांची पुष्कळदा दयनीय अवस्था होते.बहुतेक लोक आपली आयुष्याची कमाईमुलांसाठी खर्च करून टाकतात व वृद्धावस्थेत मुलांवर अवलंबून राहिल्याने अनेक पेचप्रसंग निर्माण होतात.भारतातील वातावरण निरोगी राहत नाही.त्यामुळे वृद्धांना समजून घ्यायला हवेतसेच वृद्धांनी सुद्धा थोडीफार तडजोड करायला हवी म्हणजे समस्याचनिर्माण होणार नाहीत.

वृद्धावस्थेतील व्यक्तीची सर्वात मोठी समस्या ही खाण्याविषयी असते.कारण दात पडल्यामुळे खाता येत नाही.खातांना त्रास होतो.भूक लवकर लागते.कडक चावत नाही.अशा अनेक खाण्यासंबंधी समस्या निर्माण होतात.या वयात जीभेला काही चव राहत नाही.काहीही खाल्ले तरी गोड लागत नाही.म्हणुन शरीराला पुरेशा आहार मिळत नाही त्यामुळे शरीर व्यवस्थीत कार्यक्षम राहत नाही.थकवा लवकर येतो.अस्वस्थ वाटते.त्यामुळे चिडचिडेपणा येतो.अशा अनेक समस्या या काळात उदभवतात.म्हणून आपण प्रत्येक अवस्थेची काळजी घेतली पाहिजे ती बाल्यावस्था असो तारुण्यावस्था असो प्रौढावस्था असो किंवा वृद्धावस्था असो.कारण मानव हा प्रत्येक अवस्थेत काळजी घेतो पण वृद्धावस्थेत नाही.म्हणून प्रत्येकाने आपल्या वृद्धावस्थेची काळजी घ्यायला हवी.

वृद्धावस्थेत होणारे शारिरीक बदल:- वृद्धावस्थेमध्ये शरीरातील अनेक अवयव कमजोर झालेले असतात अंधत्व,दात पडणे,ऐकु कमी येणे,व्यक्तींना ओळखता न येणे अशा अनेक समस्यांना सामोरे जावे लागते.जन्मभर परीश्रम केल्याने त्यांचे सर्वच अवयव हळूहळू थकल्यासारखे होतात.

- १) वृद्धावस्थेमध्ये चयापचयाची क्रिया १० ते ५० टक्क्यांनी कमी होत असते.
- २) शरीरातील नवीन पेशीची निर्मिती होण्याकरीता वेळ लागतो.
- ३) म्हातारपणामध्ये थकवा लवकर येतो. कामे करता येत नाहीत.
- ४) शरीराची पचनशक्ती, स्मरणशक्ती, सहनशक्ती सर्वच क्षीण होत जातात.
- ५) शरीरातील बहुतेक ज्ञानेंद्रीये शिथिल होतात. डोळ्यांनी नीट दिसत नाही. ऐकु कमी येते.
- ६) दात पडल्यामुळे चावता येत नाही. खाण्याविषयी समस्या निर्माण होतात.
- ७) वेगवेगळे रोग जडतात. उदा:- मधुमेह, उच्चरक्तदाब, हृदयरोग, संधिवात इ.

या सर्व बाबींचा परिणाम आहारावर होतो. म्हणूनच वृद्धांना योग्य आहार देणे जरूरी असते. यात सुद्धा सर्वच अन्नघटक आवश्यक असतात.

कॅलरी:- या वयात शारीरिक स्थितीवर कॅलरीची आवश्यकता अवलंबून असते. शरीरातील मूळ चयापचय गती कमी झाल्याने त्यासाठी कमी कॅलरी लागतात. या वयात कॅलरीचे प्रमाण कमी करावे.

प्रथिने:- या वयात दूध पिणे सर्वात योग्य कारण ते पचायलासोपी जाते. या वयात सुद्धा १ किलोग्रॅम शारीरिक वजनाला १ ग्रॅम प्रथिने आवश्यक असतात.

कॅल्शियम व स्निग्धे:- वृद्ध व्यक्तीचे वजन जास्त असेल तर कॅल्शियम व स्निग्धे नेहमी प्रमाणे असावे. पण वजन जास्त असल्यास त्याचे प्रमाण कमी करावे. स्निग्धे पचायला जड असल्याने २० ते ३० ग्रॅम रोज द्यावेत. वनस्पती स्निग्धांचा वापर करावा.

जिवनसत्व:- वृद्धावस्थेमध्ये शरीराची पचनशक्ती व शोषणशक्ती कमी झाल्याने जिवनसत्वाची कमतरता निर्माण होऊ शकते. यासाठी जिवनसत्व-अ, जिवनसत्व-ड आणि ब-गटातील जिवनसत्वे आहारातून मिळायला हवे. म्हणून हिरव्या पालेभाज्या व फळांचा उपयोग करावा. जर कच्च्या भाज्या व फळे खाता येत नसतील तर मल्टीव्हिटॅमिनची एक गोळी द्यावी.

खनिजपदार्थ:- वृद्धावस्थेमध्ये सुद्धा कॅल्शियम व फॉस्फोरसची आवश्यकता तारूण्यावस्थेप्रमाणेच असते. परंतु या वयात हाडे कमजोर होतात. पचनसंस्थेत कॅल्शियमचे अभिशोषण योग्य होत नाही. त्यामुळे ऑस्टोओपोरोसिस (हाडांची ढिसुळता) होण्याची शक्यता असते. दररोज ०.८ ग्रॅम कॅल्शियम मिळण्यासाठी दुग्ध घ्यावे.

लोह:- स्त्रियांचा मासिक स्त्राव बंद झाल्याने लोहाची आवश्यकता कमी होते. जर लोह व जिवनसत्व-क चे योग्य शोषण झाले नाही तर रक्तक्षय होतो. त्यामुळे लोहयुक्त औषध घ्यावे लागते.

पाणी:- दररोज भरपूर पाणी प्यायल्याने बद्धकोष्ठता होत नाही. म्हणून रोज ६ ते ७ ग्लास पाणी व इतर द्रव पदार्थ पण घ्यावेत.

वृद्ध व्यक्तीकरिता कॅलरी १७००, प्रथिने ४५ ग्रॅम, कॅल्शियम ०.५, लोह ३० मि. ग्रॅम असे शिफारस केलेले प्रमाण असून सामान्य काम करणा-या वृद्धांची एकदिवसाची आहारतालीका पुढीलप्रमाणे आहे

वेळ	पदार्थ
सकाळी ७वा.	चहा, बिस्किट
सकाळी ९वा.	सुजीचा उपमा, संत्राचा रस, दुग्ध
दुपारी १२वा.	पातळ वरण, मऊ भात, नरम पोळी, आलुची भाजी, काकडी किसून कोशिंबीर, दही
दुपारी ४वा.	चहा, बिस्किट
सांय ६वा.	किसलेले सफरचंद
रात्री ८वा.	मूंगाच्या डाळीची पातळ खिचडी, कढी, चिकु,

अशाप्रकारे पोषकघटकयुक्त आहार वृद्ध व्यक्तीचा असावा. मनुष्याने आधीपासूनच आहाराबाबत नियमित चांगल्या सवयी असल्यास, आपले मानसिक संतुलन चांगले ठेवल्यास तसेच वृद्धावस्थेचे आधीच नियोजन केलेले असल्यास आणि तरुणपणात जे करता आले नाही असा एखादा छंद जोपसला तर वृद्धपकाळ सुद्धा समृद्धीचा होऊ शकतो.

सारांश:-

वृद्धावस्था या काळात बरेच शारीरिक व मानसिक बदल होत असतात. मानवी आयुष्यातील तारूण्यावस्था व प्रौढावस्था अतिशय धावपळीत जातात. त्यामुळे एक प्रकारची पोकळी, रिकामेपण निर्माण होतो आणि त्याचा परिणाम मानसिक व शारीरिक स्वास्थ्यावर होतो. म्हणूनच निवृत्त होण्याच्या तीन चार वर्ष आधीपासून आपले वृद्धपकाळ आपण कसे घालविणार याची योजना प्रत्येकाने करायला हवी. म्हणजे वृद्धकाळ हा सुखाचा होऊ शकतो. तारूण्यावस्थेपेक्षा वृद्धावस्थेमध्ये जास्त पैसाची

गरज असते.परंतु तेव्हाच येणारा पैसाकमी होतोम्हणूनच त्याची सोय आधीच करायला हवी.तरूणपणी सर्व कामे स्वतः करू शकतो परंतु वृद्धावस्थेत ती करवून घेण्यासाठी पैसाचे बळ हवेया सगळ्यांचा विचार आजच्या पिढीतील प्रत्येक प्रौढांनी आवश्यक करायला हवा.

संदर्भसूची:

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- २.आहारशास्त्र व पोषण – त्रिवेणी फरकाडे,सुलभा गोंगे-आवृत्ती पहिली जुन २००५.
३. मानवी पोषण व आहारशास्त्र – डॉ.संगीता जवंजाळ,डॉ.किरण बेलुरकर,श्री साईनाथ प्रकाशन नागपूर आवृत्ती पहिली जुन २०१८.
- ४.शास्त्रशुध्द आहारशास्त्र – डॉ.स्नेहा महाजनी.
- ५.आहार मिमांसा – प्रा.सरल लेले.

बच्चों और युवाओं के मानसिक स्वास्थ्य और कल्याण के लिए योग की भूमिका**-प्रा. सौ. श्वेता प्रियदर्शी मेंडे**

संचालक शारीरिक शिक्षण

श्रीमती राधादेवी गोयनका महिला महाविद्यालय, अकोला

योग भावनात्मक संतुलन लाने के लिए दिमाग और शरीर को प्रशिक्षण प्रदान करता है। हम तर्क देते हैं कि बच्चों और युवाओं को अपनी शरीर, भावनाओं और विचारों को सुनने के लिए ऐसे औजारों की आवश्यकता होती है। योग उन्हें मजबूत तरीके से विकसित करने, स्वयं को मजबूत करने और सामाजिक प्राणियों का योगदान करने में सहायता कर सकता है। सबसे पहले हम जानते हैं कि आज कि दुनिया में बच्चों और युवाओं को इंटरनेट और अन्य मिडिया और संचार प्रौद्योगिकियों के माध्यम से कई उम्मीदों और निरंतर उत्तेजना का सामना करना पड़ता है। विद्यालयों में सफल होने के तनाव में भी दबाव बढ़ रहा है। योग बच्चों और युवाओं को तनाव से निपटने में मदद कर सकता है। और इस प्रकार जीवन कल्याण और मानसिक स्वास्थ्य में संतुलन के लिए सकारात्मक योगदान देता है। इसी प्रकार स्कूलों में योग छात्रों को भावनाओं और तनाव से संबंधित लचीलापन, मनोदशा और आत्मविनिमय कौशल में सुधार करने में मदद करता है।

१) परिचय :

बच्चों और किशोरावस्था के जीवन जैसे कि परिवार स्कूल और मिडिया में विभिन्न संस्थान लगातार उत्तेजना के साथ-साथ उपेक्षाएँ भी प्रदान करते हैं। नई अपेक्षाओं और मांगों के संपर्क में युवा लोगों के जीवन में विशेष रूप से उनके प्रदर्शन के मुल्यांकन से संबंधित तनाव पैदा करने की क्षमता है। हाल ही शोध में पता चला है कि सबसे तनावग्रस्त पिढी वर्तमान युवा वयस्क है। तनाव के गंभीर परिणाम स्वास्थ्य पर हो सकते हैं। यदि लगातार - पेशान किया जाता है। तो एक उच्च तनाव का स्तर पुरानी स्थिती बन सकता है। जिसके परिणामस्वरूप चिंता, अनिद्रा, मांसपेशियों में दर्द, उच्च रक्तचाप और कमजोर प्रतिरक्षा प्रणाली सहित स्वास्थ्य समस्याओं की एक श्रृंखला हो सकती है। तनाव हृदय रोग, अवसाद और मोटापा जैसी प्रमुख बीमारियों के विकास में भी योगदान दे सकता है। या मौजूदा स्वास्थ्य समस्याओं को बढ़ा सकता है। इस प्रकार स्थिति उनके परिवारों के लिए दोगुना खतरनाक और चिंताजनक हो जाती है।

इस लेख में युवाओं के लिए तनाव से निपटने और खुदको नियंत्रित करने के लिए योग के लिए एक संभावित उपकरण के रूप में योग पर चर्चा की गई है। योग भावनात्मक संतुलन लाने के लिए दिमाग और शरीर को प्रशिक्षण प्रदान करता है। योग संरक्षण और सद्भाव की ओर, जाता है। इस प्रकार योग स्वास्थ्य विकास और अच्छे मानसिक स्वास्थ्य में योगदान दे सकता है। बच्चों के लिए स्वास्थ्य प्रचार में उनके ध्यान, आत्मसम्मान, सराविकरण और आत्मविनिमय में सुधार शामिल होना आवश्यक है। हमारा मानना है कि बच्चों और किशोरों को आपनी अनुठी व्यक्तित्वों के आधार पर विकसित करने और अपनी ताकत और सामाजिक अपेक्षाओं के बीच संतुलन को समझने और प्राप्त करने की आवश्यकता है। योग उन्हें मजबूत तरीके से विकसित करने स्वयं को मजबूत करने और सामाजिक प्राणियों का योगदान करने में सहायता कर सकता है।

१) बच्चे युवा लोग और मानसिक स्वास्थ्य :

आज के युवाओं के उदाहरण भी हैं। जो पिछली पिढियों की तुलना में अधिक गंभीर दृष्टिकोण दिखाते हैं। उदाहरण के लिए नार्वे में कुछ यूरोपीय देशों में युवा पिछली पिढियों की तुलना में कम दवाओं का उपयोग करते हैं। अकादमिक रूप से बेहतर प्रदर्शन करते हैं। आर समाज में और चुनावों में अधिक सक्रिय प्रतिभागियों हैं। इसके अलावा युवा अधिक निर्णायक और कम अपराधी हैं। स्कूल में अधिक काम कर रहे हैं। वर्तमान परिदृश्य एक सकारात्मक, मानसिक स्वास्थ्य स्थिती को बढ़ावा देने के लिए शिक्षकों और माता-पिता दोनों के साथ-साथ बच्चों के लिए चूनीतिपूर्ण हैं। बचपन में युवाओं और वयस्कता में सक्रमन स्वयं ही माँग कर सकता है। शारीरिक परिवर्तनों से निपटने के बीच बच्चों को भी अपनी पहचान विकसित करना अपने माता-पिता से अपनी स्वायत्तता बढ़ाना और बदलते सहकर्मों संबाधों को सभालना है। साथ स्कूल में सफल होने, लोकप्रिय होने, फिट या पतले शरीर होने, कपड़े के सही ब्रांड पहने हुए और नवीनतम तकनीकी गैजेट का मालिकाना आदि अपेक्षाओं का यह सेट तनाव पैदा करता है। जो बच्चों और युवाओं के मानसिक स्वास्थ्य और कल्याण को प्रभावित करता है। साथ ही उनके स्कूल के प्रदर्शन को भी प्रभावित करता है।

२) बच्चों और युवा लोगों के मिडिया उपयोग और स्वास्थ्य चुनौतियाँ :

आधुनिक समाज भी असंख्य विचलन और अवांछित आकर्षण प्रदान करता है। विशेष रूप से आधुनिक मिडिया और संचार प्रौद्योगिकियों से जुड़ा हुआ है। जिस पर हम निर्भर हो गए हैं। मिडिया की विशाल उपस्थिती और बच्चों द्वारा मिडिया प्रौद्योगिकियों पर बिताए गए समय जीवन शैली और हमारी नई पिढी की प्राथमिकताओं में बदलाव के स्पष्ट संकेतक हैं। अमेरिका में बच्चों मिडिया उपकरणों का उपयोग करते हुये। प्रतिदिन साठे चार घंटे बिताते हैं। जो खतरनाक रूप से बड़े औसत हैं। यद्यपि मिडिया बच्चों और किशोरों के मानसिक स्वास्थ्य के लिए एक ज्ञान संसाधन है लेकिन इसका तीव्र उपयोग युवा लोगों की क्षमता और शारीरिक और मानसिक गतिविधियों के बीच संतुलन लाने के लिए ब्याज से संबंधित प्रश्नों की ओर जाता है।

हम मिडीया पीढी को युवाओ के रूप में समझते हैं । जो एक हाईपर मिडीया पर्यावरण में रहते हैं । भारत सहित कई देशों में मिडिया के लिए असमान पहुँच एक महत्वपूर्ण चिंता है । खासकर सूचना और संचार प्रौद्योगिकियों को भविष्य के लिए प्रमुख ज्ञान संसाधन माना जाता है । बच्चों और युवाओ के मिडीया उपयोग को संदर्भित करने की आवश्यकता है । यदि इस अभ्यासक्रम को ठिक से समझना है । सबसे पहले बच्चों के रोजमरी की गतिविधीया शामिल हैं । बच्चों के उपयोग और स्वागत मिडीया एक्सपोजर के संभावित प्रभाव मे मध्यस्थता करेंगे । मिडीया उपयोग के परिणाम व्यापक हो सकते हैं । और इससे प्रभावित हो सकता है । कि बच्चों अपना समय, सामाजिककरण और यहाँ तक की दूनिया को कैसे देखते हैं । इस प्रकार युवा लोगो का मिडीया उपयोग एक कारक हो सकता है कि वे स्वयं और उनके जिवन का अनुभव करते हैं ।

३) युवाओ के जीवन मे योग :

योग का प्राचीन अभ्यास बच्चों और, युवाओ को तनाव से निपटने मे मदद कर सकता है । और इस प्रकार मानसिक स्वास्थ्य के लिए सकारात्मक योगादान देता है । भारत मे योग शिक्षा पर हालकी एक पुस्तक में लेखक का दावा है । कि संक्षेप मे योग बच्चों के व्यक्तित्व को विकसित करने और उन्हे वर्तमान चुनौतियों और समस्याओ का सामना करने मे सक्षम बनाने के लिए एक शक्तिशाली माध्यम है । योग बच्चों के शारीरिक और मानसिक कल्याण मे सुधार करता है । स्कूलो मे योग छात्रो के भावनाओ और तनाव से संबंधित लचीलापन मनोदशा और आत्म विनियमन कौशल मे सुधार करने मे मदद करता है । इस प्रकार योग जीवन और लंबे परिप्रेक्ष्य मे तनाव और आत्मविनियमन से निपटने के लिए बच्चों और युवाओ के लिए एक महत्वपूर्ण जीवन्त कौशल उपकरण है ।

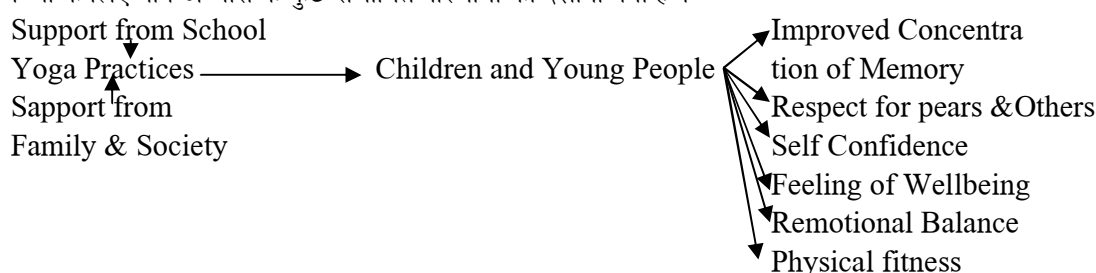
हाईस्कूल के छात्रो पर अध्ययन मे भावनात्मक संतुलन और तनाव उन्मूलन के लिए योग पर सकारात्मक प्रभाव का साक्ष्य प्रदान करता है । योग से छोटे बच्चों और युवाओ को आत्म विनियमन बनने मे मदद मिलती है । इस प्रकार उनके कल्याण, सकारात्मक सामाजिक बातचित और स्कूल के प्रदर्शन की सुविधा मिलती है । बच्चों के बिच योग अभ्यास का सबूत एकाग्रता, तनाव, उन्मूलन, आत्म जागरूकता, चेतना, आत्म विनियमन, व्यवहार और भावनात्मक परिपक्वता और रोजमरी की जिंदगी मे आत्मविश्वास मे बेहतर लाभ दर्शाती है । कुछ प्रमाण भी हैं । जहाँ योग ने सकारात्मक प्रभाव के साथ मानसिक बीमारी के चिकित्सा उपचार के लिए एक सहायक के रूप में काम किया है ।

४) बच्चों और किशोरों के लिए योग का अभ्यास करने के संभावित लाभ :

योग की सुंदरता यह है । कि यह हर स्कूल के आयु वर्ग के छात्रो के लिए इसका लाभ उपलब्ध है । योग तनाव के लिए एक व्यापक दृष्टिकोण हो सकता है । आज बच्चों के अक्सर तनावग्रस्त जीवन में कुछ ऐसी चीज की आवश्यकता होती है । योग प्रेरणा को बनवा देने नियंत्रण के आंतरिक स्वास्थ्य को विकसित करने, नीद्र मे सुधार करने और आमतौर पर स्वास्थ्य और संतुलित जीवन को प्रोत्साहित करने मे मदद कर सकता है ।

योग युवाओ के अपने संकेतो और भावनाओ के प्रति आत्म जागरूकता को स्थानांतरित करने मे भी सहायता कर सकता है । और इस प्रकार मौजूदा मिडिया बाव सहित हमेशा ऑनलाईन और उपलब्ध होने के साथ नकारात्मक सामाजिक और सांस्कृतिक प्रभावो का सामना कर सकता है । योग अक्सर फोकस और एकाग्रता मे सुधार कर सकता है ।

जैसे की पहले ही उल्लेख किया गया है मानसिक स्वास्थ्य को बनवा देने और लचीलापन और आत्म विनियमन बनने के लिए योग आवश्यक है । बच्चों के विकास और बचपन के समाजशास्त्र पर सांस्कृतिक परिप्रेक्ष्य के आधार पर बच्चों और युवाओ के जीवन मे योग महत्वपूर्ण है । संतुलन और मानव विकास को प्राप्त करने के लिए दर्शन और अभ्यास के साथ योग को सार्वभौमिक अच्छे अनुशासन के रूप में प्रयोजित किया जाता है । इसके अलावा योग शिक्षण को गंभीर और बहु अनुशासनात्मक होना चाहिए । बच्चों के लिए योग अभ्यास के कुछ संभावित परिणामो को दर्शाया गया है ।



५) विचार विमर्श :

यह आलेख दावा करता है । कि योग युवाओ के लिए एक मूल्यवान उपकरण हो सकता है । यदि आप दृढ़ता से हर दिन योग का अभ्यास करते हैं । तो आप स्थिरत्व और परिपक्वता के साथ जीवन की उथल-पुथल का सामना कर सकेगे । हाल के दिनों में शहरी क्षेत्रो मे योग प्रशिक्षण केंद्र, अभ्यास केंद्र, निजी एजेंसियों और दोनो लाभ और गैर लाभकारी क्षेत्रो के लिए व्यक्तियों ने विभिन्न रूपो और दृष्टिकोणो में स्टूडियों और संगठित सत्र खोले हैं । बहुत से लोग इन सुविधाओ का उपयोग करते और योग का अभ्यास करने के लिए शुल्क का भुगतान करते हैं ।

आज के बच्चों में शिक्षण सीखने की प्रक्रिया में एक रचनात्मक, संवादात्मक पाठ्यक्रम और सहभानिता विधि की आवश्यकता होती है। यह दृष्टिकोण योग सीखने के लिए भी लागू है। इस प्रकार अगर हम बच्चों और युवाओं के साथ प्रभावी ढंग से संवाद कर सकते हैं। तो वे तनाव को कम करने के लिए योग के साथ एक शक्तिशाली उपकरण के रूप में अपनाया जा सकता है। युवा दैनिक जीवन में इसका इस्तेमाल कर सकते हैं वे किसी भी प्रकार की भावनात्मक और सामाजिक तनाव स्थितियों में योग का उपयोग कर सकते हैं। हम योग और बच्चों और युवाओं के मानसिक स्वास्थ्य के लिए सामाजिक लोकतांत्रिक प्रणालियों को बहाल करने की निरंतरता में व्यक्तिगत और समाज के इस वैचारिक मूल्य ढाँचे को ला सकते हैं। शिक्षकों की मूल प्रेरणा यह, होनी चाहिए कि योग बच्चों के आत्मसम्मान को मजबूत करे और भितर से अपनी चेतना के माध्यम से ध्यान केंद्रित करे।

संदर्भ :

- १) विश्व स्वास्थ्य संगठन किशोर, मानसिक स्वास्थ्य गैर सरकारी संगठनों और अन्य अंतर्राष्ट्रीय विकास संगठनों (२०१२) की क्रियाओं का मानचित्रण.
- २) योग के लिए चिकित्सा का पाठ्यक्रम भारत में योग शिक्षा की अवधारणा, हरिद्वार :दिव्य प्रकाशन (२०१०)
- ३) कुमार के योग मनोविज्ञान : योगिक मनोचिकित्सा की एक पुस्तिका। नई दिल्ली: प्रिंटवर्ल्ड लिमिटेड (२०१३)
- ४) ब्रोसन एम.बी., प्रारंभिक बचपन में आत्म विनियमन : प्रकृति और पोषण न्यूयॉर्क गिल्फोर्ड (२०००)
- ४) हेंगन, बच्चों के मानसिक स्वास्थ्य को बढ़ावा देने में कई मिडिया और इंटरनेट की भूमिका। यूरोपीय संघ। स्वीडिश राष्ट्रीय स्वास्थ्य संस्थान (२००९).

A Study of Aggression in Male and Female Basketball Players: With Reference to Level of Participation

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Abstract

This study evaluated aggression in basketball players on the basis of their level of participation and gender. To conduct the study 50 male (Ave. age 24.22 years) and 50 female (Ave. age 23.42 years) elite basketball players were selected randomly. The criteria for selection of elite players was part of teams who stood amongst first four positions in national level basketball competition. To fulfil the objectives of the study, 50 male (Ave. age 22.15 years) and 50 female (Ave. age 21.97 years) sub elite basketball players were also selected randomly. The sub-elite basketball players were selected from intercollegiate level tournament. Aggression inventory prepared by Sultania (2006) was administered to each subject. To verify hypothesis 2x2 ANOVA techniques was applied. Results indicate that negative aggression in elite basketball players was significantly lower as compared to that of sub-elite basketball players. The main effect of gender was not observed on negative aggression among basketball players. The two factor interaction effect of level of participation and gender was observed on negative aggression among basketball players at .01 level of statistical significance. It was concluded that level of participation and gender are factors that can jointly affect aggression among basketball players.

Keywords : Aggression, basketball, gender, level of participation

Introduction :

Aggression is an integral part of sport and players aggression can be observed in almost every sport. This is because aggression is present in human nature itself. Berkowitz (1989) defined aggression as a behavior directed toward the injury of some target. Dollard et al. (1939) defined aggression as any sequence of behavior directed towards a person to commit intentional injury. In sport certain aspects of aggression are essential for sports performance because it boost not only players confidence but also lifts the entire team. In another way overt aggression in the form of verbal abuse, physical injury, arguing with referee may be harmful to sports performance because it diverts players mind from the game itself and this leads to reduced concentration. One such sport where there is lot of scope of such aggressive behaviour is basketball. Being one of the popular sport, it is physically and mentally demanding. Due to its popularity, so many researchers such as Musa (1997), Abenza et al. (2009), Rostami and Rezaie (2013), Singh (2015) explored various psychological aspects associated with sports performance. Surprisingly negative aggression in basketball has not been assessed in the light of level of participation and gender. Since these two variables, may throw light on aggressive behaviour of basketball players biologically and performance wise, the present study was conducted.

Hypothesis:

It was hypothesized that level of participation and gender alone and in interaction with each other will significantly influence aggression among basketball players.

Methodology:

To test the abovementioned hypothesis, the following methodological steps were taken.

Sample :

To conduct the study 50 male (Ave. age 24.22 years) and 50 female (Ave. age 23.42 years) elite basketball players were selected randomly. The criteria for selection of elite players was part of teams who stood amongst first four positions in national level basketball competition. To fulfil the

objectives of the study, 50 male (Ave. age 22.15 years) and 50 female (Ave. age 21.97 years) sub elite basketball players were also selected randomly. The sub-elite basketball players were selected from intercollegiate level tournament.

Tools :

To evaluate aggression among basketball players, aggression inventory prepared by Sultania (2006) was used. This inventory assesses negative side of aggression on the basis of dimension such as assault, indirect aggression, irritability, negativism, resentment, suspicion, verbal aggression and guilt respectively. This inventory is highly reliable and valid.

Procedure :

Aggression inventory (Sultania, 2006) was administered to all 200 subjects as per criterion set for scientific studies. The responses so obtained were scored off as per author's manual. 2x2 ANOVA technique was applied to fulfil the objectives of the present study. Results shown in table 1.

Results And Discussion

Table 1
Effect of Level of Participation (A) x Gender (B) on Aggression among Basketball Players (N=200)

		Gender (B)		Marginal Mean
		Male (b ₁)	Female (b ₂)	
Level of Participation (A)	Elite (a ₁)	N=50 M=30.70 S.D.=9.71	N=50 M=27.18 S.D.=11.79	28.93
	Sub-elite (a ₂)	N=50 M=32.20 S.D.=8.04	N=48 M=34.94 S.D.=7.61	33.57
Marginal Mean		31.45	31.05	

ANOVA Summary

Source of Variation	SS	df	MS	F
A	1076.480	1	1076.480	12.08**
B	8.000	1	8.000	0.09(NS)
AB	492.980	1	492.980	5.53**
Within treatment (Error)	17454.040	196	89.051	

NS Not Significant, ** Significant at .01 level

Analysis of ANOVA table and associated summary table 1 yielded following facts:

- The main effect of level of participation on aggression of basketball players was found to be statistically significant. It means that negative aggression in elite basketball players (M=28.93) was found to be significantly lower as compared to sub-elite basketball players (M=33.57). (F=12.08, p<.01)
- The main effect of gender on aggression of basketball players was found to be statistically insignificant. (F=0.09, p>.05)
- The F of 5.53, an indicator of joint interaction effect of level of participation and gender on aggression in basketball players, turned out to be statistically significant at .05 level of significance. The Least significant difference test reveal that negative aggression in elite male basketball players was

significantly lower as compared to sub-elite female basketball players at .05 level of statistical significance. The same result were obtained between elite female basketball players and sub-elite male basketball players.

The results are consistent with findings of Russell (2008) who reported that aggression when exhibited with rules of sports enhance sports performance. As far as impact of gender on aggression was concerned, results are not surprising because both of the them are representing the same sport and know the rules of the game very well.

Conclusion :

On the basis of results following conclusions are drawn:

- Elite basketball players exhibited significantly lesser magnitude of negative aggression as compared to sub-elite basketball players.
- No impact on gender was observed on aggressive behaviour of basketball players.
- Level of participation and gender in interaction with each other showed significant influence on aggressive behaviour of basketball players.

Hence it may be concluded that level of participation alone and in interaction with gender influence aggressive behaviour of basketball players.

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Role of New Technologies in Enhancing the Athletic Performances

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Abstract

Thanks to the latest technological developments, most people's lives have been enhanced and simplified. While the true essence of sports lies in the talent of athletic performers, their game can be greatly improved by making use of modern technologies, ensuring a superior game and positive results.

Many athletes have happily embraced such technologies, utilizing sensors and chips to aid them in evaluating their performance. They have welcomed scientifically designed sports gear to assure their movements are as efficient as possible, consequently increasing their chances of winning medals and trophies.

Keywords: BMI, Muscle Analyser, Visual Stimulus Training, Strobe goggles, The hubber motion.

Introduction

Personal gadgets are now in vogue so are information technology, it keeps an individual updated regarding its fitness and its associated parameters. Every sphere of life is touched by technology therefore it is obvious sports and its allied human resource can not remain distant from its benefits. The simplest tool which every one of us use in daily life is personal mobile phone. The softwares related to fitness and cardio are available in playstores to check our BMI (Body Mass Index), heart rate, calories requirement, nutritional supplement details etc. even such basic details can improve our fitness level to greater extent. Almost any athlete will tell us, how easy it is to begin a new fitness workout technique. But the important part is individual commitment to stick the plan and reaching the goals one sets and taking the performance to the next level. Athletes training is a physically and mentally demanding task full of possible pitfalls and many moments of failures. But the new technology has potential to make it easy, achievable and cost effective. The main aim of technology intervention is to make sports training smarter technologically and user friendly. Technology is not only helping physically fit people to get desired targets but physically disabled persons are conquering frontiers with special aids, and the credit goes to improvement in technology. Smart design and improved materials like carbon composites have made artificial limbs and gadgets lighter, comfortable with enhanced capabilities. The new wave of sports training is already upon us, and it involves the use of elegant technology not unlike that found in average Smartphone. What began as a major rise of professional athletes and organizations is slowly working its way to the mainstream, and sports training as we know it may never be the same.

According to Han Can, Ma Lu, Lying Gan(2011) the olympic glory in the national fitness programme planning and development of Chinas public concern for the sports is immensely growing due to launch of modern technological constructions of sports facilities. Technology driven intelligent application in sports have changed the out look of sports in china. The command and control system has improved the dissemination of information and access of sports information in pay way manner. Sports have become an indispensable economy earner for countries like china.

The technology intervention has enhanced the performance of athlete's to the perfection level and smart technology has improved to the end where assessing the performance has become much more easy, precise, and workable. Assume having sensors attached to you that can measure rate at which your heart is pumping, how much you are sweating, and the pace one is running. This technology is touching our skin through textiles, bands, watches and other stylish toy like sensors. It is no more the realm of science fiction rather it has been in use for years as part of our daily lives.

Current available technology is not only helping teams evaluate their players but assist athletes measure their own training schedules with proper execution. In spirit, the smartphone has become like a coach by guiding with the sensors and become a central nucleus where athletes can receive messages about their performance. These smart gadgets can be especially useful by limiting athletes when they may be pushing themselves too far during the training process. Timely alerts can cut down on the number and severity of injuries therefore, help players to improve their game better as they work hard to get to the next level. Some sensors that connect to the body can even assess if an athlete is getting quality sleep. Athletes can improve their health through timely health alerts and tips, recommended diet charts and calorie conscious schedules. It certainly help athletes to stay in the game a lot longer than they would otherwise. With use of technology comes challenges as well which needs to be addressed by the sports organizations regarding network security especially considering how sensitive some of the collected information may be to the athlete's privacy.

Smart technology is also helping the sports equipment to become more refined and accurate for athletes. Whether shooting a basketball, swinging a golf club, or kicking a soccer ball, athletes can better determine if their technique is giving them the highest chance of success. The sensors used in biomechanics or inside these pieces of equipment, much like those found in smart clothing, collect information on each kick, shot, or swing. Now referees and umpires have increased their success rate of decisions through smart gadgets like ultra edge used in cricket to hear small knicks by bat on ball. The recorded games can be used to recalibrate ones performance and unlearn and relearn techniques. The data is sent to the athlete's smartphone where they are given a picture of how well they did and the areas they need to improve in. Speed guns can calculate the speed of balls hit by bat, racket or kicked by foot or smashes by hand. Basketball with sensors may measure the backspin of the ball and guide the athlete to maximize the potential for making a shot from a certain distance away. As of now the sensor-embedded equipment isn't used in any professional games, but that could happen in the near future.

Sports training aided by smart technology have been limited to the professional ranks for years, but it's now spreading to the average fitness enthusiast with a bit of money to spend. Smart tennis rackets, for example, are now widely available, but they cost up to \$400 a piece. Smart clothing and other smart equipment are also on the market, so athletes can take advantage of what the professionals use to achieve a new level of excellence. Athletes can even measure their progress against other athletes around the world, all while seeing if their skills stack up to the best.

There is no doubt that the future of sports training lies in smart technology. It is expected that as the technology improves, prices will come down, allowing for even more people to use it to promote their own athletic progress. Technology is also helping to improve quality of shoes, T-shirts, trousers and other fitness wearables, making it more advanced, more streamlined, and with more capabilities. Technology is exciting us every second day with increasing capabilities or professional or as an amateur, smart technology are changing our lives with efficiency and accuracy with next level closer than ever before.

Technologies interventions in Enhancing the Athletic Performances by creation of Smart Sports Equipment

First and foremost step in increasing capacity building in sports through research and development in design of sports equipments. The considerable sports technologies like stylish sports stuff which are immensely popular amongst athletes to examine their performance. These equipment includes chip based equipments, sensors and computers as part of the training programme. These high tech equipments comprises of devices to quantify reaction time and frequency of movements. NY Sports Science Lab focuses on enhancing the performance of all athletes using technology based equipments to train across all parameters. The performance can not increase until we do not reach

the threshold by understanding the bio mechanics of the body. The sensors fixed at different parts transmit the body information to computers and helps to understand muscle movements and its maximum limitation thereby an athlete can enhance its maximum potential through improving moves with assistance of bio mechanic aids.

1. **EMG Muscle Analyser:** Sensors are placed in different areas to indicate how muscles are being used through basic exercise performance with sensors. It measures the amplitude of electrical impulse generated by the muscles and helps in studying qualitative and quantitative output of muscles. This technique can improve an individual to greater extent.
2. **Visual Stimulus Training:** This gadget helps in improving reaction, response and cognitive skills. An agility suit with bands are used to increase power and cardio.
3. **Strobe goggles:** Strobe goggles are incorporated to challenge and relearn the user's brain and body.
4. **The hubber motion:** It isolates the muscle groups to strengthen areas of weakness or instability. It helps the user improve the posture, mobility and assists in the rewiring of the signals. Every athlete undergoes the lab's athletic assessment tests for improvement. They are retested and examined every few weeks as per laid schedule to modify their training.

Sports Equipment Research and Development

Computer Aided Design (CAD) has played an essential part in designing enhanced sporting equipment. Sports engineering departments are developing next generation wearable technology. The final aim of the sports engineering research is to improve and enhance athletic performance as well as safety through a deeper understanding of biomechanics, mechatronics training devices. The improvement in machine learning has resulted in revolution in technology usage. The CAD has proved to be an efficient resource for coming up with new sports products and brilliant ideas. It is mainly used to sustain protection, comfort and durability of specialized sports gear. The CAD makes it possible to apply virtual design and testing techniques to each and every aspect of movements, thereby contributing to sport equipment research and development.

Improving Athletic Performances Worldwide

It is analysed that four important ways are enhancing athlete's performance; wearable's are monitoring, improving and managing performance like shoes, jerseys, socks and other outfits. These sensor based outfits track everything from the athlete's heart rate to body chemistry. Secondly the sports genetics explore how genes are playing role in influencing athlete's performance. This genetic makeup helps coaches to train and influence the performer in better ways. Thirdly data analysis maximizes marginal gains, adding up to significant improvement because data analytics provides every bit of information that athlete does, can be studied and the conditions that would lead to failure or injury can be minimized to great extent. Lastly the virtual reality enables athletes to practice in real conditions; by hooking up to virtual reality provides players with live information to fix reflexes to outperform the opponent with historical data. Israel is good example who is using revolutionary brain training softwares to improve sports performance. This Israeli startup intelligym maximising team athlete performance through brain training. It works as a brain gymnasium to increase cognitive aspects of brain. Application of neuro science to improve game and memory is now in vogue. It really helps in hand-eye coordination, sensory training, stress management, concentration, visualisation, eye tracking, sports specific training, depth perception, peripheral vision, visual reaction time, monocular vision, sensory motor training, focus and attention. So it is time to change the outlook of the sports through training the brain for the game using technology.

Sports scientist Ross Tucker found some amazing facts regarding some famous athletes when he compared performance of past with recent one. Jesse Owens 1936 finished his 100 meters in 10.2 seconds while Usain Bolt accomplished this feat in 9.77 seconds in 2013, that means Jesse Owens would be 14 feet behind. In 1954 Sir Roger Banister became first man to cover a mile in 4 minutes but today any college student can achieve this feat. In 2013 approximately more than 1300 runners mostly college kids could do it within 4 minutes, where does the magic lie certainly in the improvement of

the technology. It means training more intelligently has put more people in the elite club than what Roger Banister could achieve almost fifty years back. Technology has made difference in all sports from faster skies to lighter shoes. Hundred meters free style swimming has changed in last five decades due to introduction of newly designed full body and frictionless swim suits and improvement in the design of swimming pools therefore, technology has changed face of performance. Similarly cycling record by Eddy Mercks set the record in 1972 of longest distance cycled in one hour, 30 miles 3774 feet but in 1996 records with aerodynamic bikes were set as 35 miles 1531 feet in one hour. Today's high jumper and shot putter is 2.5 inches taller and 30 pounds heavier than what it was in 1920, this selective gene pool is just a gift of technology. Today in NBA league average players are more than 7 feet tall so this selection process has gone to global level through telecommunication avenues. So demand for taller players in particular sport has increased so has athletes shrunk in certain sports from 5 feet 3 inches to 4 feet 9 inches over last thirty years. Very thin and long legs of kelinjen men are suited to marathon running; this weird body suitability has come up as unique selection of body types suited to particular sports. Changing technology, changing genes and changing mindset, changing innovation in sports whether improvisation of tracks surfaces, democratization of sports and understanding what human bodies are capable of doing. Sports is a multi billion economy with a great name and fame so it is inevitable to avoid technology interventions in sports performances.

Conclusion

Latest developments in sporting technologies have led to an influx of a large range of products which are enhancing athletic performances across the world. They are effectively maintaining athlete health, observing and treating injuries by means of heart rate and body-fat monitors. This has allowed a deeper understanding and knowledge of how athletes can further push their abilities and recognize their maximum potential. Moreover, modern sporting technologies have also played their part in rectifying judging errors which ensure only the best athletes are able to win. New technologies play vital role in the human being in particularly in field of sports and games. It helps to avoid mistake in organization of various sports at world level. New Technologies in Sports has established scientific discipline, Research activities, improve Learning and coaching, Bio-mechanical analysis and field research have evolved. In future very soon the way computer will be applicable in sports with good quality and better results.

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Study Of Agility And Speed Between Rural And Urban Areas Of Intercollegiate Male Soccer Players

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Abstract:

The main purpose of the study was to compare the agility and speed of the inter-collegiate football players. A total of Fourty (40) subjects, comprising 20 rural and 20 urban areas of Intercollegiate Male Soccer Players in Amravati District. The Subjects were selected by using simple random sampling. The age of the subjects ranged between 18-28 years. To analyze the agility and speed of the subjects of two the groups I.e. Rural and Urban areas of Intercollegiate Male Soccer Players belongs Amravati District. The following tests or equipments were used, Agility: Shuttle runs (4 x 10 yards). Equipment: Lime powder, flag, wooden blocks, score card, pen etc. Speed: 50 meter run. Equipment: Stop watch with split second time and marked track. The analysis of data was done by using statistical technique 't' - test for finding the significance difference of agility and speed of rural and urban areas of Intercollegiate Male Soccer Players in Amravati District and the level of significance was set at 0.05 levels ($p < 0.05$).

Keywords: Agility, Speed, Rural and Urban and Soccer Players.

Introduction:

The term motor fitness is most often used synonymously with physical fitness by the coaches but it is very important for the physical education students to understand the basic difference between physical fitness and motor fitness. Physical fitness is used to denote only the five basic fitness components (muscular strength, muscular endurance, cardiovascular endurance, freedom from obesity and flexibility), whereas motor fitness is a more comprehensive term, which includes all the ten fitness components including additional five motor performance components (power, speed, agility, balance and reaction time), important mainly for success in sports. In other word, motor fitness refers to the efficiency of basic movements in additional to the physical fitness.

Agility:

The speed with which an individual may change his body positions or fastness in changing directions while moving is known as agility. For example, shuttle run etc.

Speed:

The rapidity of muscle movement or the rate of change of body movement is known as muscular speed. Literality speed is measured by dividing distance by time in short run. However, in sports, time of sprint of 60 yard dash itself is considered as a measure of one's speed instead of converting it in meters per second it is recorded as seconds per 60 yard or per 30 M etc.

Procedure and Methodology:

A total of Fourty (40) subjects were selected for the collection of data which include 20 rural and 20 urban areas of intercollegiate soccer players belongs to Amravati District, were randomly selected for the study. The Subjects were selected by using simple random sampling. The age of the subjects ranged between 18-28 years.

Equipments Used For Collection of Data:

The following tests or equipments were used, Agility: Shuttle runs (4 x 10 yards). Equipment: Lime powder, flag, wooden blocks, score card, pen etc. Speed: 50 meter run. Equipment: Stop watch with split second time and marked track, for rural and urban areas of Intercollegiate Male Soccer Players.

Table-1

Comparison in Agility Between Rural and Urban Areas of Inter Collegiate Male Soccer Players

Players	Mean	S.D.	M.D.	S.E.	O.T.	T.T.
Rural	10.19	0.71	0.91	0.35	2.31	2.00
Urban	9.28	0.36				

Graph-1
Graphical Representation of Mean Difference of Agility between Rural and Urban Areas of Inter Collegiate Male Soccer Players

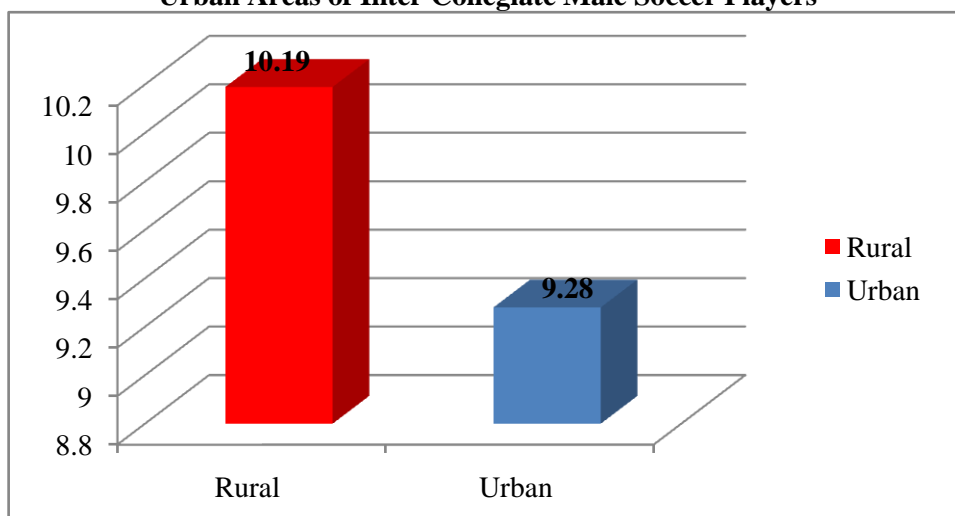
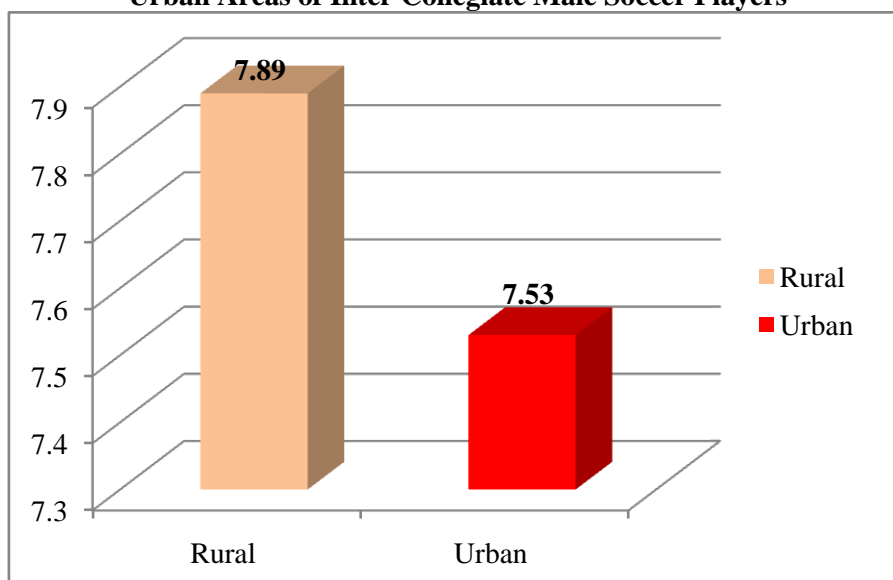


Table-2
Comparison of Speed Between Rural and Urban Areas of Inter Collegiate Male Soccer Players

Players	Mean	S.D.	M.D.	S.E.	O.T.	T.T.
Rural	7.89	0.26	0.32	0.24	1.33	2.00
Urban	7.53	0.23				

Graph-2
Graphical Representation of Mean Difference of Speed Between Rural and Urban Areas of Inter Collegiate Male Soccer Players



Conclusion:

The researcher compared the selected motor fitness components Rural and Urban Areas of Intercollegiate Male Soccer Players. Within the limitations of the present study and on the basis of findings it is concluded that there is significant difference in Agility between rural and urban areas of inter collegiate Male soccer players, and also there is insignificance difference of Speed between rural and urban areas of intercollegiate Male soccer players. Hence the researcher's pre assumed has been partially accepted.

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Relevance of *Yoga* for *Today's life*

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Abstract

To live in harmony with oneself and the environment is the desire of every human. However, in modern days better physical and emotional demands are constantly placed upon many areas of life. The result more and more people suffer from physical and mental pressure such as stress, anxiety, insomnia, and there is an imbalance in physical activity and daily routine. Stress is the body's physical, mental and chemical reactions to circumstance that frighten, excite, confuse, challenge, surprise, anger, endanger or irritate. The measures that cause stress may be good or bad. It may be defined as excess weight or deposition of excess fat on body, which leads various diseases like diabetes, heart diseases, hypertension, lowered pulmonary function, lowers life expectancy. Heart is said to be most responsive to emotional stress. During stress period, the vessels of the visceral organs are tightened and amount of blood flow to the muscles is increased. By restricting the tiny vessels to visceral organs, the heart is pressed to work harder, when heart beats faster, the blood pressure rises. If the emotional stress persists blood pressure remains consistently high leading to stroke and other cardiovascular disease. Concluding we can say that Yoga's benefits affect every person in a different way. Some perform to relax himself; others practices for feeling healthier and more energetic. All the systems in the body- from the lymphatic to the digestive system and to the cardiovascular all are benefits from yoga. Yoga benefits every aspect of one's bodies, inside as well as outside.

Keyword: Yoga, Stress, Obesity, Cardiovascular, etc.

Introduction

Yoga deals with a Science of Body, Mind, Consciousness and Soul.

To live in harmony with oneself and the environment is the desire of every human. However, in modern days better physical and emotional demands are constantly placed upon many areas of life. The result more and more people suffer from physical and mental pressure such as stress, anxiety, insomnia, and there is an imbalance in physical activity and daily routine. This is why methods and techniques for the realization and improvement of health, in accordance with physical, mental and spiritual harmony, are of great significance, and that's why "Yoga in Daily Life is essential" broadly it offers an assist to help one's self.

The word "Yoga" has been originates from Sanskrit word 'yuj' means "to join, to unite". Yoga practices have a holistic effect and bring body, mind, consciousness and soul into a sense of balance. In this way Yoga assists us to cope with everyday demands, problems and worries. Yoga helps us to develop a greater understanding of our self. On the spiritual path, Yoga leads us to acquire knowledge and endless bliss in the union of the individual self with the universal self. It is the luminosity of life, the universal artistic consciousness that is always awake and never sleeps; that always was, always is, and always will be.

Many thousands of years ago in India, Rishis (saints) explored nature and the cosmos in their meditations. They revealed the laws of the material and spiritual realms and gained an insight into the connections within the universe. They investigated the outer space laws, the laws of nature and the elements, life on earth and the powers and energies at work in the universe - both in the external world as well as on spiritual level. The unity of matter and energy, the origin of the universe and the effects of the elementary powers have been described and explained briefly in the Vedas. Much of this information has been rediscovered and confirmed by modern science.

Definitions of Yoga

Yoga is a way to improve or develop one's inherent power in a balanced manner. It offers the means to achieve complete self-realization. Yoga can therefore be defined as a means of 'uniting the individual spirit' with the 'universal spirit of God'.

According to Maharishi Patanjali 'Yoga is the suppression of modifications of the mind.'

*According to swami Vivekananda Yoga can be defined as "Yoga as a practice that joins a human to 'reality' or 'God'.

* In the Bhagvat Gita (Chapter 2, Verse 48), yoga is defined as equanimity of mind or the balance of mind in all situations. It says:

*yoga-sthah kuru karmāṇi saṅgam tyaktvā dhanañjaya
siddhy-asiddhyoḥ samo bhūtvā samatvam yoga ucyate*

yoga-sthah — steadfast in yoga; *kuru* — perform; *karmāṇi* — your duty; *saṅgam* — attachment; *tyaktvā* — having abandoned; *dhanañjaya* — O Dhanañjaya; *siddhi-asiddhyoḥ* — in success and failure; *samah* — the same; *bhūtvā* — having become; *samatvam* — evenness of mind; *yogaḥ* — yoga; *ucyate* — is called.

Be steadfast in yoga, O Arjuna. Perform your duty and discard all attachment from your heart to success or failure. Such evenness of mind is called yoga.

The stages of Yoga

The right means are just as important as the ends in view. Patanjali enumerates the eight limbs or stages of Yoga for the quest of the soul. They are

1. Yama (attitudes toward our environment)
2. Niyama (attitudes toward ourselves)
3. Asana (Physical Posture)
4. Pranayam (rhythmic control of the breath)
5. Pratyahara (withdrawal of the sense)
6. Dharana (Concentration)
7. Dhyana (Meditation)
8. Samadhi (complete integration)

Problems of Modern Life

Uncountable problems are created in present day's life. But there are some problems that are at high risk i.e.

- Stress.
- Cardiac problems
- Obesity

Stress

Stress (roughly the opposite of relaxation) is a medical term for a wide range of strong external stimuli, both physiological and psychological, which can cause a physiological response called the general adaptation syndrome, first described in 1936 by Hans Selye in the journal "Nature". It can be understood as tension: condition of mental or emotional strain or nervousness.

Stress is the body's physical, mental and chemical reactions to circumstance that frighten, excite, confuse, challenge, surprise, anger, endanger or irritate. The measures that cause stress may be good or bad.

While many people have always thought of yoga as some mystic Hindu practice, that image is rapidly disappearing-almost as fast as the stressed of our modern lives are increasing. The American Academy of Family physicians has noted that stress related symptoms prompt heart disease and 60 millions have hypertension.

Obesity

It may be defined as excess weight or deposition of excess fat on body, which leads various diseases like diabetes, heart diseases, hypertension, lowered pulmonary function, lowers life expectancy.

Obesity, perceptibly, is a curse and a serious disease by itself. If you do not modify your life style and choose the right food on a regular basis, the weight you lose on any diet will come right back. Almost 70 per cent of those who diet, regain their lost weight within a year, and have to diet all over again. Constant losing and gaining of weight in the battle of bulge is frustrating and demoralizing. It often leaves serious psychological scars. You can keep yourself fit but not fat.

Yoga a way to Balanced Life

Health is the foundation on which rests the happiness of the people and the strength of nation. Yoga is a science that regulates the physical and physiological behavior of an individual. Regular practice of Yoga will develop physical fitness and keep the ailments away and also it gives the mental power. Some of the advantages of Yoga are:

- It's a traditional system of practice, coordination, both mind and body, which is ultimately needed for the today's modernized society. Yoga plays a vital role determining the individual's physical and mental fitness.
- Unlike some allopathic medicines, Yoga practice has no side effects.
- Regular practice of yoga prevents occurrence of many diseases of modernized life style.

Practicing Yoga can alter your brain chemistry. Some yoga positions are helpful in stimulating the pituitary gland to release endorphins and to reduce the level of cortisol (the stress hormone) Asanas very much beneficial in functioning of the endocrine system. We know the important role the endocrine glands play during stress adaptation, by secreting the stress hormones. There is such an intricate relationship between the glands that one malfunctioning gland can cause the disruption of the whole system.

Cardiac Problems

Heart is said to be most responsive to emotional stress. During stress period, the vessels of the visceral organs are tightened and amount of blood flow to the muscles is increased. By restricting the tiny vessels to visceral organs, the heart is pressed to work harder, when heart beats faster, the blood pressure rises. If the emotional stress persists blood pressure remains consistently high leading to stroke and other cardiovascular disease.

Yogic practice help to prepare a healthy body and mind trained in such a way that a necessary equilibrium is established in over all functions. It is short of recondition of physiological mechanism of body as a whole. The effectiveness of Yoga in controlling hypertension by removing stress related disorders.

Conclusion:

Yogic Science fruitful field for fundamental and applied research and teaching at higher levels by behavioural scientist, particularly psychologicistic. It is important that indigenous knowledge of yoga and yoga psychology is suitably incorporated as an integrated aspect of life in our routine. Yoga is good for everyone so people of all professions, cultures, religions and socio-economic strata adopt yogic lifestyle and attain an inspired vision for future. Yogic life style has the potential to harmonize the emotional life of the individual and helps one to gear up for the inner journey of the everlasting contentment. Yoga is a complete science of life and although ancient one, has become popular only in the recent past. It is a scientific methods for exercising and relaxing to ease the tension and stresses of modern day living. To conclude this, I would strongly recommend suggest yoga as one of the preventive & social medicines of westernized society.

Yoga's benefits affect every person in a different way. Some perform to relax himself; others practices for feeling healthier and more energetic. All the systems in the body-from the lymphatic to the digestive system and to the cardiovascular all are benefits from yoga. Yoga benefits every aspect of one's bodies, inside as well as outside.

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A Comparative Study Of Flexibility And Cardiovascular Fitness Between Yoga And Other Sports Person

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Abstract:

The main purpose of this study was to compare flexibility and cardiovascular fitness between yoga and other sports person. The total samples consists of 40 yoga and other sports person samples selection made randomly and the age level ranging from 18 to 20. The data on flexibility and cardiovascular fitness obtained from the subjects was statistically analyzed by using one-way analysis of variance (ANOVA). There was insignificant difference in flexibility and cardiovascular endurance of yoga, gymnastics, swimming, basketball and kabaddi group.

Keywords: yoga practice, body composition

Introduction:

By exercising day trips, man's mind is upbeat and the body gets strength and energy. If we compare the exercise with the medicines given by the doctors, vitamin syrup and injection, then all is wasted. The statement of a large physician is that the doctor who restores his patient's health without much trust in medicines is also called the most intelligent and good doctor. Large researchers say that in today's era humans are more dying than diseases and more are dying due to medicines. It is clear from this that humans do not need medicines to exercise and do yoga exercises to strengthen their health.

Methodology: The total samples consists of 40 yoga and other sports person samples selection made randomly and the age level ranging from 18 to 20.

Sample Design: Showing distribution of sample

Sample	Sample Size
Yoga	8
Gymnastic	8
Swimming	8
Basketball	8
Kabaddi	8
Total	40

Tools:

- Flexibility:** Sit and reach test was used to collect the flexibility of yoga and other sportsperson
- Cardiovascular Fitness:** Harvard bench step test was used to collect the cardiovascular fitness of yoga and other sportsperson

Analysis of the Data: The data on flexibility and cardiovascular fitness obtained from the subjects was statistically analyzed by using one-way analysis of variance (ANOVA). Post-Hoc test was applied f-ratio was found significant. For the hypothesis, level of significance was set at .05 level.

Table-1: Summary of flexibility among yoga and other sports person

Groups	Count	Sum	Average	Variance
Yoga	8	559.43	69.93	26.960
Gymnastic	8	575.56	71.95	10.922
Swimming	8	567.90	70.99	49.303
Basketball	8	566.83	70.85	57.884
Kabaddi	8	561.70	70.21	11.701

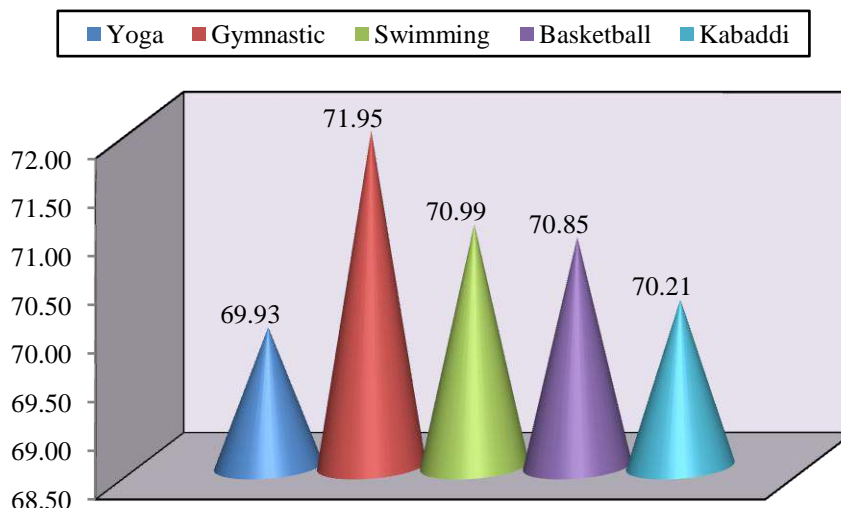


Fig 1: Graphical representation of Mean value of flexibility between yoga and other sports persons

Table-2: Analysis of variance in flexibility among yoga and other sports person

Source of Variation	SS	df	MS	F
Between Groups	214.350	4	53.588	0.462
Within Groups	4061.250	35	116.036	

* Significant at .05 level of significance $F_{.05} (4, 35) = 2.641$

The analysis of data in table-2 revealed that there was insignificant difference in flexibility of yoga, Gymnastics, Swimming, Basketball and Kabaddi group as the obtained F-ratio was 0.462 which was less than that of required tabulated 'F' value of 2.641 at .05 level significance with (4,35) degree of freedom.

Table-3: Summary of cardiovascular endurance among yoga and other sports person

Groups	Count	Sum	Average	Variance
Yoga	8	354	44.25	154.7857
Gymnastic	8	355	44.375	43.41071
Swimming	8	315	39.375	115.4107
Basketball	8	312	39	252.8571
Kabaddi	8	328	41	13.71429

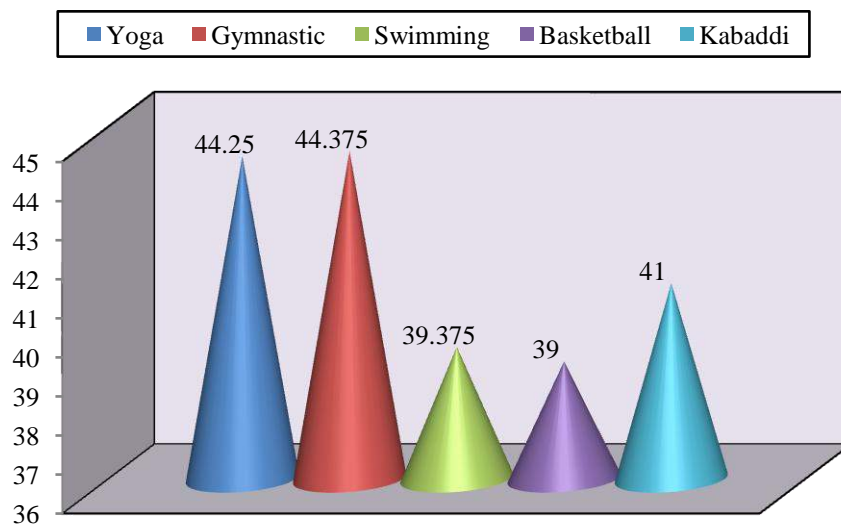


Fig 2: Graphical representation of Mean value of cardiovascular endurance between yoga and other sports persons

Table-4: Analysis of variance in cardiovascular fitness among yoga and other sports person

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>
Between Groups	19.618	4	4.905	0.156
Within Groups	1097.394	35	31.354	

* Significant at .05 level of significance $F_{.05} (4, 35) = 2.641$

The analysis of data in table-2 revealed that there was insignificant difference in cardiovascular fitness of yoga, Gymnastics, Swimming, Basketball and Kabaddi group as the obtained F-ratio was 0.156 which was less than that of required tabulated 'F' value of 2.641 at .05 level significance with (4,35) degree of freedom.

Conclusion:

On the basis of the result drawn with the mentioned methodology the following conclusion were sougheed out. There was insignificant difference in flexibility and cardiovascular endurance of yoga, gymnastics, swimming, basketball and kabaddi group. The disease attacks only the weak body and the person exercising is always fit and powerful. That's why exercise is the only solution to avoid illness or disease.

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How To Improve Your Wellbeing Through Physical Activity And Sport

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Introduction

Why does being active matter?

We all know that being physically active is good for our bodies. But our physical health and mental health are closely linked – so physical activity can be very beneficial for our mental health and wellbeing too.

Lots of us don't get enough exercise to stay healthy, but physical activity is particularly important if you have a mental health problem. This is because people with mental health problems are more likely to have a poor diet, smoke or drink too much alcohol, or be overweight/obese (this can be a side effect of taking medication).

So if you have a mental health problem, the health benefits of becoming more physically active are even more significant.

What does being physically active mean?

We all have different reasons for being active. The types of activity we do usually fall under these headings:

- Physical activity.

This can describe anything we do that involves moving our bodies.

- Exercise.

Any physical activity could be considered exercise, but when we talk about doing exercise we usually mean activities we do deliberately for fitness or training, rather than something that's part of our daily routine.

- Sport.

Sport usually refers to physical activities we do on our own or in a team for competition or fun. People working in the sport and leisure industries use the word in its broadest sense, including activities such as tennis, athletics, swimming, keep-fit or Zumba classes. Some sports such as snooker or darts are more about skill than any physical exertion

What are the health benefits of physical activity?

Physical activity has a wide range of health benefits – for your mind and body, and for your social and emotional wellbeing. Physical health benefits As well as improving your overall physical fitness, being more active can have the following physical benefits:

- Reduced risk of some diseases. For example, health experts suggest that being more active can reduce your risk of developing a stroke or heart disease by 10%, and type 2 diabetes by 30–40%.
- Reduced risk of physical health problems as our bodies adapt to stress. As we become fitter, our bodies can better regulate our cortisol levels. Cortisol is a 'stress hormone' that our bodies release in response to anxiety; over prolonged periods, higher cortisol levels have been linked to a wide range of health problems including heart disease, high blood pressure, a lowered immune response, as well as depression and anxiety.
- Healthier organs. When you're active your body is working more, which is good for your organs. For example, a stronger heart will help you have lower cholesterol and lower blood pressure.
- Healthier bones. Weight-bearing exercises will strengthen your bones and build your muscle, which can reduce your chances of developing osteoporosis. 6 7

- Healthier weight. If you're overweight, becoming more active can help you start to reduce body fat as your stamina and fitness levels improve.
- More energy. As your body adapts to increased activity levels you get a natural energy boost, which can make you feel less tired. Researchers say that even low intensity levels of activity can be beneficial if you usually feel very fatigued.
- Improved sleep. Many people find they are able to sleep better at night after having been more active during the day.

Mental health benefits

- Reduced anxiety and happier moods. When you exercise, your brain chemistry changes through the release of endorphins (sometimes called 'feel good' hormones), which can calm anxiety and lift your mood.
- Reduced feelings of stress. You may experience reductions in feelings of stress and tension as your body is better able to control cortisol levels.
- Clearer thinking. Some people find that exercise helps to break up racing thoughts. As your body tires so does your mind, leaving you calmer and better able to think clearly.
- A greater sense of calm. Simply taking time out to exercise can give you space to think things over and help your mind feel calmer.
- Increased self-esteem. When you start to see your fitness levels increase and your body improve, it can give your self-esteem a big boost. The sense of achievement you get from learning new skills and achieving your goals can also help you feel better about yourself and lift your mood. Improved self-esteem also has a protective effect that increases life satisfaction and can make you more resilient to feeling stressed
- Reduced risk of depression. If you're more active there's good evidence to suggest that at most ages, for both men and women, there's a trend towards lower rates of depression. In fact one study has found that by increasing your activity levels from doing nothing to exercising at least three times a week, you can reduce your risk of depression by almost 20%.

Social and emotional benefits

- Making friends and connecting with people. Being around people is good for our mental health and social networks – plus you can maximise the benefits of exercising by doing it with other people. You may find that the social benefits are just as important as the physical ones.
- Having fun. Lots of us enjoy being active because it's fun. Researchers have shown that there's a link between the things we enjoy doing and improvements in our wellbeing overall. If you enjoy an activity you're also more likely to keep doing it.
- Challenging stigma and discrimination. Some people find that joining a sport program helps reduce the stigma attached to their mental health problem. Getting involved in local projects with other people who share a common interest can be a great way to break down barriers and challenge discrimination.

References:

1. web: sportandrecreation.org.uk Umbrella organisation for the governing and representative bodies of sport and recreation in the UK

Comparative Study Of Physical Fitness Of The Students Of Central And State Schools In Maharashtra

Research Scholar:
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[M.P.Ed,Net]

Abstract

The present study was stated as "Comparative Study of Physical Fitness of the students of central and state schools in West Bengal". By observing the importance of physical fitness in the field of life, researcher make a AAHPER youth physical fitness test to make physical fitness more effective in our life. The purpose of the study was to find out the physical fitness of the central and state school students. 100 students were taken from central and state schools in West Bengal. The age group of subjects ranged from 14 to 16 years. AAHPER Youth Physical Fitness Test items employed for collection of data. Simple random sampling procedure was employed for the selection of the subject. The reviews were collected on the basis of sports magazine, sports journals, research quarterly and dissertations from the library of Degree College of Physical Education, Amravati. The collected data was treated statistically by applying 't' - ratio. The results of the findings revealed that significant mean difference was found in the composite score of fitness ($t = 7.33$), pull up ($t = 4.54$), sit up ($t = 4.09$), standing broad jump ($t = 5.25$), 50 yard dash ($t = 2.29$) and insignificant differences were found on shuttle run ($t = 0.02$) and 600 yard run and walk ($t = 1.95$).

Introduction :

To have a fit nation means healthy and productive citizens. So, the most important problem is to find ways and means to help people understand and appreciate the values of fitness and develop self guidance attitude toward the attainment of physical fitness. The term physical education is much broader and much more meaningful for day to day activities. It is more directly allied to the larger area of education of which it is a vital part, it implies that its programme consists of something other than mere exercise done on command. A physical education programme under qualified leadership aids in the enrichment for an individual's life.

Statement of the Problem

The researcher has stated this study as "A Comparative Study of Physical Fitness of the student of Central and State School of Purulia District in West Bengal".

Hypothesis

It was hypothesized that there may be a significant difference in physical fitness of the students Central and State School students of Purulia District in West Bengal.

Further it was hypothesized that the Central school students may be better than State school students in physical fitness.

Delimitations

- 1) The study were delimited to male students only.
- 2) The subjects falling in the age group of 14 to 16 years was taken for this study.
- 3) 50 (fifty) students was selected from both Boards.

Limitation

- 1) Interest, diet and socio-economic status were not be known.
- 2) Inherent potentialities were not known.
- 3) The study was limited to the students from Central schools and State schools, of Purulia District in West Bengal.

Significance of the Study

The results of this study may contribute significantly as follows :

- 1) The present study might help in analyzing and the classification of general fitness of the Central school students and State School students.
- 2) The status of Physical fitness of the students was identified by the study.
- 3) The study may provide the guidelines for the students to know their own fitness with other students.

Design of Study :

The researcher will select 50 male subjects from Central school students and 50 male subjects from State School students studying of Purulia District in West Bengal. Simple random sampling method was employed for the selection of subjects. The necessary data were collected by administrating AAHPER Youth Fitness Test items such as pull-up (Arm and Shoulder Strength), sit-up (Abdominal Strength and Endurance), shuttle run (Speed and Agility), standing broad jump (Explosive Strength of Leg), 50 yard dash (Speed) and 600 yard run /walk (Cardiovascular Endurance) for collecting the data for physical fitness components.

Findings :

Significance of Mean Difference in the physical fitness components between the State and Central School Students

Variables	Mean of		S.D. of		M.D.	S.E.	t-ratio
	State School Students	Central School Students	State School Students	Central School Students			
Physical fitness	283.75	315.82	22.80	20.91	32.09	4.38	7.33*
Pull-up	4.04	5.58	1.56	1.82	1.54	0.34	4.54*
Sit-up	26.10	29.70	7.97	9.05	3.6	0.88	4.09*
Shuttle run	11.93	11.53	1.14	1.05	0.4	0.22	0.02 [@]
Standing Broad Jump	1.87	2.08	0.16	0.21	0.21	0.04	5.25*
50 Yard Dash	11.22	10.27	1.03	0.98	0.48	0.21	2.29*
600 Yard Run/Walk	146.32	142.49	13.67	13.19	5.25	2.69	1.95 [@]

* Significant at 0.05 level of confidence.
 @ Not Significant at 0.05 level of confidence.

Discussion of Findings :

It has been observed from the result of this study compositely that the physical fitness of central school students would be better than state school students. This may be attributed to the fact that central school students are accustomed as physical work, regularity in physical movement, Balanced diet, less mental stress, Less pollution.

Environment is the first and major cause which causes on the difference on the fitness level of the individuals. People were not equal in all places and in all regions. Especially the people will differ in physical conditions depending upon their pattern of living and the nature of the society. What we should be interested in it was the equality of opportunity, fairness, and justice in all aspects of the activity related to their daily needs.

Through the central school students were much interested in keeping their health in good condition, they were placed in an easy way of living which restricts the vigorous movements of the bodily organs. They were also having more transportation and communicating facilities which also leads to sedentary living.

On the contrary, the central school student although do not have enough opportunities for sports and games as well as physical activities they seem to be physically more fit. Feeling of

freedom, inhaling of pure air, good climatic conditions are the main factors which influence their good physical fitness.

Conclusion :

It is concluded that there were significant difference in physical fitness of the students Central and State School students of Purulia District in West Bengal.

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राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठांतर्गत येणाऱ्या महाविद्यालयातील
जिम्नॅस्टिक्स व मल्लखांब खेळाडूंच्या शारीरिक क्षमतेच्या घटकांचा तुलनात्मक अभ्यास

डॉ. अनिल वसंतराव वाळके
नाशिकराव तिरपुडे कॉलेज ऑफ फिजीकल एज्युकेशन
नागपूर

प्रस्तावना :

भारतीय पारंपरिक खेळांपैकी एक क्रीडाप्रकार म्हणजे “मल्लखांब” होय.

मल्लखांब याचा अर्थ मल्लांला उपयोगी पडणारा खांब असा आहे. मल्लाला कुस्तीसाठी योग्य शरीर कमावण्यासाठी हा खांब बनविलेला असतो.

कुस्तीसाठी शक्तीबरोबर चपलतेची लवचिकतेची गरज असते. शरीरात चपळता यावी, दम वाढावा या हेतूने अनेक प्रकारच्या मेहनती जुन्या काळी केल्या जात होत्या. त्यामध्ये मल्लखांबाच्या मेहनतीची भर घालण्याचे काम बाळंभट दादा देवधर यांनी केली.

पण आज मल्लखांब हा स्वतंत्र क्रीडाप्रकार मानला जात आहे. मल्लखांब सर्व भारतीय खेळाचा जीव आहे.

जिम्नॅस्ट होण्याच्या महत्वाकांक्षेमुळे कौशल्यपूर्ण बनून खुपशा गोष्टी अंगीकृत होतात, ह्याने कुठल्याही प्रसंगाचा सामना करणे, तडजोड करणे जिम्नॅस्टकरीता सोपा होतो. वारंवार कृति केल्यामुळे सहजता येते. त्यामुळेच संरक्षण विभागात जिम्नॅस्टिकला अति महत्त्व देण्यात येते. चांगला जिम्नॅस्ट कुठल्याही खेळात/क्रीडेत सहजतेने उच्च प्राविण्य प्राप्त करू शकतो. चपळतेने केली जाणारी हालचाल, कठिण वळण होऊन सहजतेने स्थिर होणे, पुन्हा सिध्द होणे या सारख्या खुपशा क्रिया, विशेष खेळ क्रीडा प्रकारात क्षमता आणि सिध्दता जिम्नॅस्टिक्स सारख्याच असतात. मल्लखांब, पोलवॉल्ट, स्पोर्ट्स अॅक्रोबॅटिक्स, डायविंग, फुटबॉल, गोलरक्षक, द्वंद्व प्रकारात जिम्नॅस्टिकचे कौशल्य उपयुक्त आहे. प्रत्येक खेळ आणि क्रीडा दुसऱ्या खेळ आणि क्रीडेसाठी उपयुक्त असतात. चांगला प्रशिक्षक हे समजून सहाय्यक प्रकार आपल्या विद्यार्थ्यांना देतो. या प्रकारांमुळे प्रगतिशील हालचाली दुसऱ्या प्रकारांसाठी उपयुक्त ठरतात. या कारणामुळे या प्रकाराला “मदर ऑफ दी गेम” असे समजतात.

मल्लखांब व जिम्नॅस्टिक्स या दोन्ही खेळांत खेळाडूंमधील शारीरिक क्षमता व त्यांचे कौशल्य या बाबींचा मोठ्या प्रमाणात उपयोग होतो. किंबहुना असे म्हटल्यास अतिशयोक्ति होणार नाही की, ही कौशल्ये विकसित होणे त्यांच्या शारीरिक क्षमतेवरच निर्भर करतात.

मल्लखांब व जिम्नॅस्टिक्स हे दोन्ही खेळ विद्यार्थ्यांनी कमी वयातच खेळावयास हवे. या दोन्ही खेळात, शक्ती, चपळता लवचिकपणा, दमदारपणा, संतुलन, सहनशीलता, तीव्र-प्रतिक्रिया यासारखी शारीरिक क्षमता दिसून येते. या कारणामुळे लहानपणीच जी मुले लवचिकता, चपळता व शारीरिक स्वास्थ्य या घटकांच्या अनुषंगाने योग्य वाटतात त्या मुलांना ओळखून या खेळांमध्ये प्राविण्य प्राप्त करण्याकरीता प्रवृत्त करणे आवश्यक आहे. वरील सर्व बाबींना लक्षात घेवून जिम्नॅस्टिक्स व मल्लखांब खेळाडूंचे मानवमितीचे तुलनात्मक अध्ययन करण्यात आले आहे.

संशोधनाची परिसीमा

प्रस्तुत संशोधन केवळ राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ, नागपूर अंतर्गत येणाऱ्या महाविद्यालयातील जिम्नॅस्टिक्स व मल्लखांब खेळाडूंपुरते मर्यादित होते.

संशोधनाकरीता १८ ते २५ वर्ष वयोगटातील मल्लखांब व जिम्नॅस्टिक खेळाडू निवडण्यात आले.

संशोधनाची सीमा

- १) संशोधनाकरिता उपलब्ध प्रमाणित चाचण्यांच्या आधारे माहिती संकलित करण्यात आली.
- २) खेळाडूंचा प्रतिसाद प्राप्त करतांना खेळाडूंची मानसिक स्थिती, प्रामाणिकता, प्रथम प्रतिसाद या सारख्या घटकांवर नियंत्रण नव्हते.
- ३) जिम्नॅस्टिक्स व मल्लखांब या दोन खेळांपुरते प्रस्तावित संशोधनकार्य मर्यादित होते.
- ४) हे अध्ययन जिम्नॅस्टिक्स व मल्लखांब खेळाडूंच्या शारीरिक क्षमतेच्या घटकांपर्यंत मर्यादित होते.
- ५) खेळाडूंच्या व्यक्तिगत पैलूंचा या संशोधनात विचार करण्यात आला नाही.
- ६) खेळाडूंची आर्थिक, कौटुंबिक, सामाजिक परिस्थित भिन्न असल्यामुळे त्यावर नियंत्रण नव्हते.

संशोधनाचे उद्देश

- १) राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील जिम्नॅस्टिक्स व मल्लखांब खेळाडूंच्या शारीरिक क्षमतेच्या घटकांचा अभ्यास करणे व त्यांची तुलना करणे.

गृहितकृत्ये

राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील जिम्नॅस्टिक्स व मल्लखांब खेळाडूंच्या शारीरिक क्षमतेच्या घटकांमध्ये समानता असण्याची संभावना नाही.

संशोधन पध्दती

- १) सर्वेक्षण माध्यमाने माहिती गोळा करण्यात आली.
- २) प्रत्यक्ष माहितीच्या संकलनासाठी प्रयोगात्मक पध्दतीचा उपयोग करण्यात आली.

तथ्य संकलन

शारीरिक क्षमता चले

- १) गती (Speed)
- २) चलता (Agility)
- ३) हृदय नाडी क्षमता (Endurance)
- ४) लवचिकता (Flexibility)

५) खांद्याच्या स्नायूची क्षमता

नमुना निवड

राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील १०० खेळाडू निवडण्यात आले, त्यातील ५० जिम्नॅस्टिक खेळाडू व ५० मल्लखांब खेळणाऱ्या खेळाडूची निवड करण्यात आली.

प्रस्तुत अध्ययनात संभाव्यता पध्दतीतील साधा यादृच्छिक नमुना (Sample Random Sampling) निवडण्यात आला.

सांख्यिकीय विश्लेषण

प्राप्त झालेल्या माहितीवरून मध्यमान (Mean) व मानक विचलन (Standard Deviation) काढण्यात आले. प्राप्त माहितीच्या तुलनात्मक अध्ययनाकरता श्जश तंजपव जमेज चा वापर करण्यात आला. Significance Level 0.05 ठेवण्यात आली.

सांख्यिकीय विश्लेषण आणि अर्थविवेचन

सारणी क्रमांक १

राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील जिम्नॅस्टिक व मल्लखांब खेळाडूंच्या गतीसंबंधी माहिती (जिम्नॅस्टिक व मल्लखांब खेळाडूची गती (सेकंद))

मध्यमान १	मध्यमान २	म.फ.	't' रेशिओ	Reg. ration मूल्य
७.३५	८.०९	०.७५	७.०६४	२.०१

मध्यमान - १ - जिम्नॅस्टिक खेळाडूंचे मध्यमान

मध्यमान - २ - मल्लखांब खेळाडूंचे मध्यमान

वरील सारणी क्रमांक १ मध्ये राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील जिम्नॅस्टिक्स व मल्लखांब या खेळात सहभागी होणाऱ्या खेळाडूंच्या गतीसंबंधी माहिती दर्शविण्यात आली आहे. माहितीनुसार जिम्नॅस्टिक्स खेळणाऱ्या खेळाडूंचा मध्यमान ७.३५ असून मल्लखांब खेळाडूंचे मध्यमान ८.०९ आहे. दोन्ही मध्ये फरक दिसून येतो. उपरोक्त माहितीनुसार हा निष्कर्ष काढला जावू शकतो की मल्लखांब खेळाडूंचे तुलनेत जिम्नॅस्टिक्स खेळाडू ५० यार्ड (दौड) गती परिक्षण मध्ये चांगले आहे.

सारणी क्रमांक २

राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील जिम्नॅस्टिक व मल्लखांब खेळाडूंच्या हृदय नाडी क्षमतेसंबंधी माहिती (जिम्नॅस्टिक व मल्लखांब खेळाडूची हृदय नाडी क्षमता (मिनिट))

मध्यमान १	मध्यमान २	म.फ.	't' रेशिओ	Reg. ration मूल्य
२.७७	२.७८	०.०१	०.०७६	२.०१

मध्यमान - १ - जिम्नॅस्टिक्स खेळाडूचे मध्यमान

मध्यमान - २ - मल्लखांब खेळाडूचे मध्यमान

वरील सारणी क्रमांक २ मध्ये राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील जिम्नॅस्टिक्स व मल्लखांब खेळाडूंच्या हृदय नाडी क्षमतेसंबंधी माहिती दर्शविण्यात आली आहे. माहितीनुसार जिम्नॅस्टिक खेळणाऱ्या खेळाडूचे मध्यमान २.७७ असून मल्लखांब खेळणाऱ्या खेळाडूंचे मध्यमान २.७८ आहे. या दोन्ही मध्ये फरक दिसून येतो. उपरोक्त माहितीनुसार हा निष्कर्ष काढला जावू शकतो की मल्लखांब खेळाडूचे तुलनेत जिम्नॅस्टिक्स खेळाडू ६० यार्ड रनिंगमध्ये चांगले आहेत.

सारणी क्रमांक ३

राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील जिम्नॅस्टिक व मल्लखांब खेळाडूंच्या लवचिकेतसंबंधी माहिती (जिम्नॅस्टिक व मल्लखांब खेळाडूची लवचिकता (से.मी.))

मध्यमान १	मध्यमान २	म.फ.	इज्ज रेशिओ	त्महण तंजपवद मूल्य
४.४२	४.५०	०.०८	०.३७०	२.०१

मध्यमान - १ - जिम्नॅस्टिक्स खेळाडूचे मध्यमान

मध्यमान - २ - मल्लखांब खेळाडूचे मध्यमान

वरील सारणी क्रमांक ३ मध्ये राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील जिम्नॅस्टिक्स व मल्लखांब खेळाडूंच्या लवचिकता क्षमतेसंबंधी माहिती दर्शविण्यात आली आहे. माहितीनुसार जिम्नॅस्टिक खेळणाऱ्या खेळाडूचे मध्यमान ४.४२ असून मल्लखांब खेळणाऱ्या खेळाडूंचे मध्यमान ४.५० आहे. या दोन्ही मध्ये फरक दिसून येतो. उपरोक्त माहितीनुसार हा निष्कर्ष काढला जावू शकतो की जिम्नॅस्टिक खेळाडूंच्या तुलनेत मल्लखांब खेळाडू (सिट आणि रिच चाचणीत) लवचिकतामध्ये चांगले आहेत.

सारणी क्रमांक ४

राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील जिम्नॅस्टिक व मल्लखांब खेळाडूंच्या चपळतासंबंधी माहिती (जिम्नॅस्टिक व मल्लखांब खेळाडूची चपळता (सेकंद))

मध्यमान १	मध्यमान २	म.फ.	't' रेशिओ	Reg. ration मूल्य
११.१४	११.३५	०.२१	१.४४६	२.०१

मध्यमान - १ - जिम्नॅस्टिक्स खेळाडूचे मध्यमान

मध्यमान - २ - मल्लखांब खेळाडूचे मध्यमान

वरील सारणी क्रमांक ४ मध्ये राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील जिम्नॅस्टिक्स व मल्लखांब खेळाडूंच्या चपळता क्षमतेसंबंधी माहिती

दर्शविण्यात आली आहे. माहितीनुसार जिम्नॅस्टिक खेळणाऱ्या खेळाडूचे मध्यमान ११.१४ असून मल्लखांब खेळणाऱ्या खेळाडूचे मध्यमान ११.३५ आहे. या दोन्ही मध्ये फरक दिसून येतो. उपरोक्त माहितीनुसार हा निष्कर्ष काढला जावू शकतो की मल्लखांब खेळाडूच्या तुलनेत जिम्नॅस्टिक खेळाडू चपळतामध्ये चांगले आहेत.

निष्कर्ष

संशोधनाच्या परिणामांच्या आधारावर निष्कर्ष काढण्यात आले, जे खालीलप्रमाणे आहेत.

१) गती (सेकंद)

प्रस्तुत संशोधन कार्यात प्राप्त झालेल्या माहितीच्या सांख्यिकीय विश्लेषणावरून असा निष्कर्ष काढण्यात येतो की, राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील मल्लखांब खेळाडूपेक्षा जिम्नॅस्टिक्स खेळाडूंची गती ही चांगली आहे.

२) हृदयनाडी क्षमता (मिनिट)

प्रस्तुत संशोधन कार्यात प्राप्त झालेल्या माहितीच्या सांख्यिकीय विश्लेषणावरून असा निष्कर्ष काढण्यात येतो की, राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील मल्लखांब खेळाडूपेक्षा जिम्नॅस्टिक्स खेळाडूंची हृदयनाडी क्षमता ही चांगली आहे.

३) लवचिकता (से.मी.)

प्रस्तुत संशोधन कार्यात प्राप्त झालेल्या माहितीच्या सांख्यिकीय विश्लेषणावरून असा निष्कर्ष काढण्यात येतो की, राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील जिम्नॅस्टिक खेळाडूपेक्षा मल्लखांब खेळाऱ्या खेळाडूंची लवचिकता जास्त चांगली आहे.

४) चपळता (सेकंद)

प्रस्तुत संशोधन कार्यात प्राप्त झालेल्या माहितीच्या सांख्यिकीय विश्लेषणावरून असा निष्कर्ष काढण्यात येतो की, राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ अंतर्गत येणाऱ्या महाविद्यालयातील मल्लखांब खेळाडूपेक्षा जिम्नॅस्टिक्स खेळाडूंची चपळता ही चांगली आहे.

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