

Effectiveness of Physical Training Program on BMI of Sedentary Students***Dr. Shivaji Tulshiram Suryawanshi***Assistant Professor-P.E.S. College of Physical Education,
Nagsenvana Campus, Aurangabad.**Abstract**

The purpose of this study was to evaluate the effectiveness of a physical training program on sedentary students of senior colleges. We hypothesize that applying physical training program on sedentary students of age 21 to 30 to the intervention group will demonstrate a significant improvement in both body composition with those in the control group. Obesity is a condition of the body in which it has excess of body fats. Obesity is directly associated with life-expectancy, public and private expenditure on health and non-active lifestyle of sedentary students. Obesity has a harmful effect on sedentary students which reduces the physical efficiency. Therefore, the present study was conducted to have an idea regarding non active habits and risk factors which are associated with obesity among sedentary students in colleges of Aurangabad city. The Mean score standard deviation and t-ratio of BMI in pre and post-test of age group (21-25) sedentary students with regards to selected physiological variable in Body mass Index in pre and post-test and they have obtain the mean value of 23.54 and 21.101 respectively and also shows that significant effects of physical education training program was found in Body mass Index of age group (21-25) sedentary students. The Mean score standard deviation and t-ratio of BMI in pre and post-test of age group (26-30) sedentary students with regards to Body mass Index (BMI) in pre and post-test of Experimental group they have obtain the mean value of 23.89 and 21.31 respectively and also shows significant effects of physical education training program was found in Body mass Index of age group (26-30) sedentary students.

Keywords: Effectiveness, Physical Training, BMI, Sedentary Students.

Introduction

Obesity is a condition of the body in which it has excess of body fats. Obesity is directly associated with life-expectancy, public and private expenditure on health and non-active lifestyle of sedentary students. Obesity has a harmful effect on sedentary students which reduces the physical efficiency. Therefore, the present study was conducted to have an idea regarding non active habits and risk factors which are associated with obesity among sedentary students in colleges of Aurangabad city. A sample of 76 respondents was collected from the colleges based on convenience sampling technique. The information was collected through proforma and an interview method. The research design refers to “the researcher’s overall plan for testing the research hypotheses. This study involves a cross sectional, comparative pre and post-test of two groups of students in experimental research. Since only experimental group will be taken by the investigator

and there will be no control group so this study will be conducted in a quasi-experimental design. This explores and measures the cardiovascular efficiency body composition and health outcome within the environment and culture. Researchers should consider user perspectives and incorporate social support activities when developing exercise programmes for physical development and Researchers should evaluate exercise as a stand-alone treatment approach using high-quality and well-designed clinical trials. There are several scientifically supported explanations for the effects of exercise on psychological behaviour. To optimise clinical benefits of exercise, it is imperative to direct our focus on the specific neural mechanisms theorised to underpin psychological symptoms when conceptualising and framing research inquiries. Essentially, exercise interventions should be customised to effectively target and modulate the key neural mechanisms associated with psychological symptoms. we can enhance our understanding of how exercise can effectively address fundamental neural

or psychological developments after going through the particular physical training programs. Whether an individual is associated with lifestyle diseases or not, Physical education training is important components of a healthy lifestyle.

The study regarding the physical fitness programmes can be placed in a special order in the subject of physical education, Sports sciences etc. Therefore, this study endeavours to examine the effects of Physical education training programmes on **BMI-physiological efficiency on sedentary students.**

Statement of the problem

Effectiveness of Physical Training Program on physiological efficiency particularly on BMI of Sedentary Students.

Objective of the study

- The objective was to Evaluate effect of Physical education training programme on Body Mass Index-BMI of sedentary student of age 21 to 30 yrs.

Hypothesis

There would be significant effect of Physical education training programme on Body Mass Index-BMI of sedentary student of age 21 to 30 yrs.

Sample Size And Sampling Method

Only one group was targeted experimental group, there was no control group. The 75 male sedentary students from different colleges in Marathwada region of Maharashtra participated in the study and their age ranged between 21-30 years. Training was given to the experimental groups. The sampling method of the study is purposive sample.

Delimitations Of THE Study

1. Study was conducted on 75 sedentary students. Only experimental group was targeted there was no control group.
2. The age group of sedentary students was 21-30 yrs.
3. The study was delimited to the following physiological variable only.

- a) Physiological Variables: Body Mass Index (B M I).

Limitation of The Study

1. The weather condition that would affect the results of the study was considered as limitations.
2. The background of the subject was not considered in this study.
3. There was no control of researcher scholar on the diet of the subjects.
4. Inherent potential of the subjects was unknown.
5. Other exercises and activities which affect the result of this study were recognized as limitations.

Research Design

This study involves a cross sectional, comparative pre and post-test of two groups of sedentary students i.e. 21 to 25 and 26 to 30 years of age in experimental research. Since only experimental group will be taken by the investigator and there will be no control group so this study will be conducted in a quasi-experimental design. This explores and measures the cardiovascular efficiency body composition and health outcome within the environment and culture.

Selection Of Variables

- a) Physiological Variables: Body Mass Index-BMI.

This study involves a cross sectional, comparative pre and post-test of two groups of students in experimental research. Since only experimental group will be taken by the investigator and there will be no control group so this study will be conducted in a quasi-experimental design. This explores and measures the cardiovascular efficiency body composition and health outcome within the environment and culture. In collecting the data, the researcher Follow to ethical guidelines, principles, and standards for studies conducted with human beings. In light of above BMI were measure.

Administration of The Test And Tools

Body Mass Index was measured by individual's body mass divided by the square of his height. BMI is a measurement of a person's leanness or corpulence based on their height and weight, and is intended to

quantify tissue mass. It is widely used as a general indicator of whether a person has a healthy body weight for their height. Specifically, the value obtained from the calculation of BMI is used to categorize whether a person is underweight, normal weight, overweight, or obese depending on what range the value falls between. These ranges of BMI vary based on factors such as region and age, and are sometimes further divided into subcategories such as severely underweight or very severely obese. Being overweight or underweight can have significant health effects, so while BMI is an imperfect measure of healthy body weight, it is a useful indicator of whether any additional testing or action is required. Refer to the table below to see the different categories based on BMI that are used by the calculator.

BMI = 20.1 kg/m^2 (Normal)

161718.525303540

Underweight Normal Overweight Obesity BMI = 20.1

- Healthy BMI range: 18.5 kg/m^2 - 25 kg/m^2
- Healthy weight for the height: 59.9 kg - 81 kg
- BMI Prime: 0.8
- Ponderal Index: 11.1 kg/m^3

Physiological Test:

The data was collected before & after training to the students through questionnaires. The instruction was given by the investigator to the students before filling these questionnaires. Pre and post BMI **physiological Test** was taken by following procedure.

Tools of The Study:

BMI Calculator were used online on website i.e calculator.net/bmi-calculator.html

Statistical Analysis

The obtained data was in Pre & Post form therefore to analyse the obtained data Mean, Standard Deviation and T-test was utilized by the investigator. The level of significant was set up at 0.05 level.

Interpretation of Data and Results of The Study

Table 1

Mean score standard deviation and t-ratio of BMI in pre and post-test of age group (21-25) sedentary students.

Variable	Test	Number	Mean	S.D.	t-ratio
BMI	Pre-Test	49	23.54	5.67	*
	Post-Test	49	21.01	5.14	

NS = Significant at .05 level. $P < .05$

Table- 1 shows that **Mean score standard deviation and t-ratio of BMI in pre and post-test of age group (21-25) sedentary students.**

With regards to selected physiological variable in Body mass Index in pre and post-test of Experimental group they have obtain the mean value of 23.54 and 21.101 respectively which are given in the Table -1 shows that significant effects of physical education training programme was found in Body mass Index of **age group (21-25) sedentary students.**

Mean score and standard deviation of BMI in pre and post-test of age group (21-25) sedentary students have been presented in figure-1

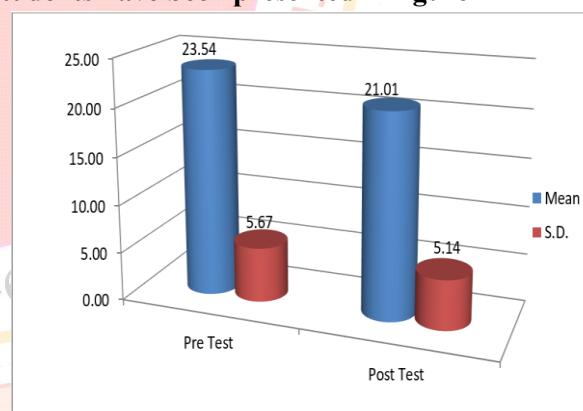


Figure-1 shows Mean score and standard deviation of BMI in pre and post-test of age group (21-25) sedentary students.

Table -2

Mean score standard deviation and t-ratio of BMI in pre and post-test of age group (26-30) sedentary students.

Variable	Test	Number	Mean	S.D.	t-ratio
BMI	Pre-Test	26	23.89	5.67	*
	Post-Test	26	21.31	5.28	

NS = Significant at .05 level. $P < .05$

Table- 2 shows that **Mean score standard deviation and t-ratio of BMI in pre and post-test of age group (26-30) sedentary students.**

With regards to selected physiological variable in Body mass Index in pre and post-test of Experimental group they have obtain the mean value of 23.89 and 21.31 respectively which are given in the Table -2 shows that significant effects of physical education training programme was found in Body mass Index of **age group (26-30) sedentary students.**

Mean score and standard deviation of BMI in pre and post-test of age group (26-30) sedentary students have been presented in figure-2

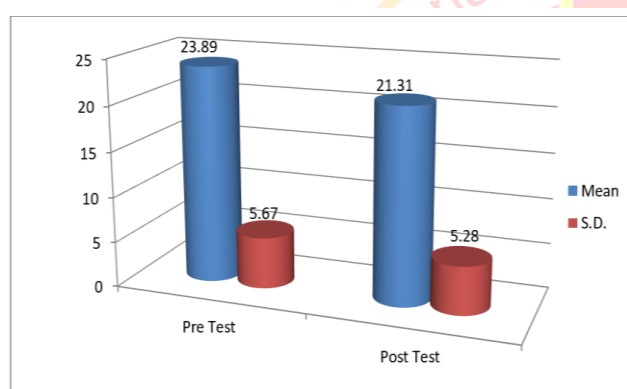


Figure-2 shows Mean score and standard deviation of BMI in pre and post-test of age group (26-30) sedentary students.

Findings And Conclusion:

1. The Mean score standard deviation and t-ratio of BMI in pre and post-test of age group (21-25) sedentary students. With regards to selected physiological variable in Body mass Index in pre and post-test of Experimental group they have obtain the mean value of 23.54 and 21.101 respectively which are given in the Table -1 shows that significant effects of physical education training programme was found in Body mass Index of **age group (21-25) sedentary students.**
2. The **Mean score standard deviation and t-ratio of BMI in pre and post-test of age group (26-30) sedentary students.** With regards to selected physiological variable in Body mass Index in pre and post-test of Experimental group they have obtain the mean value of 23.89 and 21.31 respectively which are given in the Table -2 shows that significant effects of physical

education training programme was found in Body mass Index of **age group (26-30) sedentary students.**

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