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Effectiveness Of Weight Training On Anthropometric Traits Of Young **Sedentarystudents**

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Abstract:

The young sedentary students may be define as 21-25 years age group students. The aim of this study was to determine the effects of weight training on anthropometric characteristics among sedentary students. Total 29 male sedentary students was selected as subject. The chest muscle circumference, upper arm muscle circumference, forearm muscle circumference, thigh muscle circumference and calf muscle circumference were selected anthropometric measurements for this study and divided into two equal groups namely experimental group and control group. The data was collected before and at the end of six weeks training programme, with the help of steel tape. To find out the significant effect of weight training on selected anthropometric measurements the t-test was employed and mean difference between pre test and post test of experimental group and control group was determined. The Mean Scores (S.Ds.) age of control group was 25.78 (4.46) years, mean scores (S.Ds.) weight was 67.20 (9.11) Kg, mean scores (S.Ds.) and height was 168.00 (15.21) cm. However, Mean Score (S.Ds.) age of experimental group was 24.56 (4.78) years, mean score (S.Ds.) weight was 68.12 (9.23) kg., mean score (S.Ds.) and height was 169.60 (16.32) cm.

Result reveals that significant effect of weight training on chest muscle circumference, upper arm muscle circumference, fore arm muscle circumference and calf muscle circumference and in case of thigh muscle circumference no significant effect was found on experimental group when compared with control group. Therefore, the weight training programme designed for this study might not be effective on thigh muscle circumference. The significant effect on subjects of experimental group might be due to the nature of weight training programme designed in the present study for the duration of six weeks.

Introduction :

www Sedentary life style is going to be contribute the health problem. sedentary life style may contribute to the life style disease such as cardiovascular disease, Blood Pressure, Obesity. Weight training is a very important aspect of sports training or physical body training and everybody is aware of their effects on the body's muscles and tendons. Training effect describes the physiological changes that occur from regular participation in a fitness program. In

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weight lifting terms it simply means that you have to push yourself and not to be afraid of acute pain. For example, after completing a set of bench presses for 12 reps, you have to ask yourself if you could have completed a few more. If so, then the current weight is to light and you should increase the weight so that the 12th repetition will be the last and the most difficult to complete (Joseph, 2000). To achieve the training effect and experience the benefits of exercises the following concepts must be applied. Weight training is an essential component of exercise programs for increasing muscular strength and size. Other terms that are used to refer to the use of weights or some form of resistance in order to increase muscle strength and size are "resistance training" and "weight training". The objective of the study was to find out the effect of weight training on chest muscle circumference, upper arm muscle circumference, fore arm muscle circumference, thigh muscle circumference and calf muscle circumference. On the basis of available literature and researcher's own experience and understanding about the problem, it is hypothesized that there would be significant effects of weight training on chest muscle circumference, upper arm muscle circumference, thigh muscle circumference, the subjust training on chest muscle circumference, upper arm muscle circumference, thigh muscle circumference, upper arm muscle circumference. On the basis

Methods:

The young sedentary students may be define as 21-25 years age group students In this study 29 students of School of Educational Sciences Swami Ramanand Teerth Marathwada University, Nanded were selected by employing simple random sampling method. The male students of Aurangabad, Jalna and Nanded districts of Marathwada region of Maharashtra was source of data for the present study. The chest muscle circumference, upper arm muscle circumference, forearm muscle circumference, thigh muscle circumference and calf muscle circumference were selected anthropometric measurements for this study and divided into two equal groups namely experimental group and control group.

Criterion Measures :

Description of training program : The goal of this training programme was to build the muscle. This 3 day workout was divided into three parts over 3 days a week. The first day for legs second day for chest and third day was dedicated to the arms. This training programme was performed by the subjects on Monday ,Wednesday and Friday. Before starting the exercising the subjects performed warming up by doing 5-10 minutes

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cardio followed by stretching. The training equipments were free weights and machines. The number of sets per exercise was 3 and the numbers of repetitions for each exercise

Results and discussion:

The collected data on fifty subjects before and after six weeks weight trainings programme on selected anthropometric measurements were analyzed by employing t test. The mean, standard deviation and t value analyzed each dependent variable separately. For the sake of convince and methodical presentation of results, following order has been adopted:

E.	Morphological characteristics of Control groups						
Sr. No.	Components	Means Scores	Standard Deviations				
1.	Age (Year)	25.78	4.46				
2.	Weight (Kg)	67.20kg	9.11				
3.	Height (cm)	168.00cm	15.21				

Table-1 Morphological characteristics of Control groups

Table -1 depicted the morphological characteristics of control group, the Mean Scores (S.Ds.) age of control group was 25.78 (4.46) years, mean scores (S.Ds.) weight was 67.20 (9.11) Kg, mean scores (S.Ds.) and height was 168.00 (15.21) cm.

Table-2 Morphological characteristics of the Experimental groups

Sr. No.	Component s	Means Scores	Standard Deviation		
1.	Age (Year)	24.56	C4.78		
2.	Weight (Kg)	68.12	9.23		
3.	Height (cm)	169.60	16.32		

Table-2 shows Mean, (S.Ds.) age of experimental group was 24.56 (4.78) years, mean score (S.Ds.) weight was 68.12 (9.23) kg., mean score (S.Ds.) and height was 169.60 (16.32) cm,

Table -3						
Mean Scores, Standard deviation, and t-ratio of selected anthropometric						
characteristics of control groups.						

S.No.	Parameter	Name of group	No.	Mean	S.D.	t-ratio
	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	group		scores		
1	Chest muscle circumference	Pre-test	29	88.59	5.12	NS
1.		Post-test	29	88.43	5.09	115
				.arr		
2	Forearm muscle circumference	Pre-test	29	25.57	2.10	
2.		Post-test	29	25.67	2.12	NS
3.	Upper arm muscle	Pre-test	29	23.80	2.11	NS
4	circumference	Post-test	29	23.78	2.10	C
4	Thigh muscle	Pre-test	29	49.04	4.32	2
S	circumference	Post-test	29			NS
5				49.07	4.34	ž
5.	Calf muscle	Pre-test	29	30.12	3.09	NS
Y	circumterence	Post-test	29	30.20	3.15	a/

Table -4

Mean Scores, Standard deviation and t-ratio selected characteristics of experimental groups.

S.No.	Parameter	Name of group	-630 No.	Mean scores	S.D.	t-ratio
1.	Chest muscle	Pre-test	29	89.56	5.66	
	circumference	Post-test	29	95.67	5.98	*
2.	Forearm muscle circumference	Pre-test	29	26.54	2.56	*
		Post-test	29	30.56	2.76	

3.	Upper arm muscle circumference	Pre-test	29	24.56	2.34	
		Post-test	29	29.20	2.78	*
4.	Thigh muscle circumference	Pre-test	29	51.02	4.56	
	alln	Post-test S	29	55.68	4.89	NS
5.	Calf muscle	Pre-test	29	31.45	2.87	*
1	circumference	Post-test	29	36.87	3.45	

*= Significant.,NS= Not Significant.

With regards to selected anthropometric measurement in chest muscle circumference of pre- post-test of Age group (21-25) experimental group they have obtained the mean value of 89.56 and 95.67 respectively which are given in the table- 12 reveals that significant effect of weight training was found (t=,p<.05) chest muscle circumference of Age group (21-25) experimental group. That means weight training is beneficial for increasing chest muscle circumference among the Age group (21-25) sedentary students. Thus the hypothesis was accepted.

With regards to selected anthropometric measurement in Upper arm muscle circumference of pre- post-test of Age group (21-25) experimental group they have obtained the mean value of 26.54 and 30,56 respectively which are given in the table- 13 reveals that significant effect of weight training was found (t=,p<.05) in chest muscle circumference of Age group (21-25) experimental group. That means weight training is beneficial for increasing chest muscle circumference among the Age group (21-25) experimental group they have obtained the mean value of 24.56 and 29.20 respectively which are given in the table- 14 reveals that significant effect of weight training was found (t=,p<.05) in Fore arm muscle circumference of Age group (21-25) experimental group they have obtained the mean value of 24.56 and 29.20 respectively which are given in the table- 14 reveals that significant effect of weight training was found (t=,p<.05) in Fore arm muscle circumference of Age group (21-25) experimental group. That means weight training is beneficial for increasing the table significant effect of weight training was found (t=,p<.05) in Fore arm muscle circumference of Age group (21-25) experimental group they have obtained the mean value of 24.56 and 29.20 respectively which are given in the table- 14 reveals that significant effect of weight training was found (t=,p<.05) in Fore arm muscle circumference of Age group (21-25) experimental group. That means weight training is beneficial for increasing Fore arm muscle circumference among the Age group (21-25) sedentary students. Thus the hypothesis was accepted. With regards to selected anthropometric measurement in Thigh muscle

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circumference of pre- post-test of Age group (21-25) experimental group they have obtained the mean value of 51.02 and 55.68 respectively which are given in the table- 15 reveals that significant effect of weight training was found (t=,p<.05) in Thigh muscle circumference of Age group (21-25) experimental group. That means weight training is beneficial for increasing Thigh muscle circumference among the Age group (21-25) sedentary students. Thus the hypothesis was accepted.

With regards to selected anthropometric measurement in Calf muscle circumference of pre- post-test experimental group they have obtained the mean value of 30.12 and 35.81 respectively which are given in the table- 16 reveals that significant effect of weight training was found (t=,p<.05) in Calf muscle circumference of Age group (21-25) experimental group. That means weight training is beneficial for increasing Calf muscle circumference among the Age group (21-25) sedentary students. Thus the hypothesis was accepted

Reference

- Berger R. A. "Comparison of the effect of various weight training loads on strength", Research Quarterly, Vol.36, No. 6 1965.
- Berger R., "Effect if varied weight training programs on strength", Research Quarterly, Vol. 33, No. 5, 1962.
- Carpinett R.N. "The Effect of Varied Weight Training Programmes on Strength", Vol. 46, 2003.
- Chuie E.F., "Effect of isometric and dynamic weight training exercise upon strength and speed of movement", Research Quarterly, Vol. 33, No.9, 1964.
- Kansal D. et.al., "Anthropometric study of University Volleyball and football players", Research Bio-Annual for Movement, Vol. 6, No. 1 1987.

Lawton T. W., et., al., "Effect of Interrepetition Rest Intervals on Weight Training Repetition Power Output", Journal of Strength and Conditioning Research ,Vol. 20, No. 1, 2006.

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Provstgaard "Periodized versus high-intensity weight training: Effects on dynamic strength and body composition". University Microfilms International, Vol. 17, No, 48. June 2001.

- Rahimi, R. "Effect of moderate and high intensity weight training on the body composition of overweight Men". Facta Un4ersitatis Series Physical Education and Sport, Vol. 4, No. 2, 2006.
- Rahimi R. and Behpur N. "The effects of plyometric, weight and plyometric-weight training on anaerobic power and muscular strength". Facta Un4ersitatis Series Physical Education and Sport, Vol. 3, No. 1, 2005.

- Reid C. M., et. al., "Weight training and strength, cardiorespiratory functioning and body composition of men" British Journal of Sports Medicine. Vol. 21, No.1, 1987.
- Sharma and Pal "Comparison of selected anthropometric measurements and motor fitness of mangolians and non-mangolians", Research Bi-annual for
- Steensland, Evan L., "The relative effect of weight training and weight lifting on the development of strength and endurance in University of Washington males", Completed Research in Health, Physical Education and Recreation, 1967.
- Sydney D. and Connell M., "The effect of weight training compared with the effects of dynamic tension on the development of strength and motor ability", Completed Research in Health Physical Education and Recreation, 1963.
- Tarpenning K. M. et. al., "Influence of Weight Training Exercise and Modification of Hormonal Response on Skeletal Muscle Growth", Journal of Science and Medicine in Sport, Vol. 4, No. 4, December 2001. Trappe S.W. et. al., "Effect Of Resistance Training On Single Muscle Fiber Contractile Function In Older Men". Journal of Applied Physiology, Vol. 89, 2000, Pp 143-152.

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