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EFFECT OF PHYSICAL EXERCISES ON SPEED AMONG POST GRADUATE STUDENTS

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Abstract
The purpose of the study was to find out the Effect of Physical Exercises on Speed among Post Graduate Students. It was hypothesized that there would be significant differences on physical fitness variables due to the effect of Physical Exercises among Post Graduate Students. For the present study the 40 Female Post Graduate Students from Govt. First Grade College for Women, Vijayapura District of Karnataka State was selected at random and their age ranged from 19 to 25 years. Criterion measures for this study were test items for speed. To measure speed about the Post Graduate Students, manual method was used. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of twenty each and named as Group „A" and Group „B". Group „A" underwent Physical Exercises and Group „B" has not undergone any training. The data was collected before and after Eight weeks of training. The data was analyzed by applying dependent „t" test. The level of significance was set at 0.05. The Physical Exercises had positive Effect on Speed among Post Graduate Students.

Key Words: Physical Exercises, Speed, Post Graduate.

Introduction

Physical exercise is any bodily activity that enhances or maintains physical fitness and overall health and wellness. It is performed for various reasons including strengthening muscles and the cardiovascular system, honing athletic skills, weight loss or maintenance, as well as for the purpose of enjoyment. Frequent and regular physical exercise boosts the immune system, and helps prevent the "diseases of affluence" such as heart disease, cardiovascular disease, Type 2 diabetes and obesity. It also improves mental health, helps prevent depression, helps to promote or maintain positive self esteem, and can even augment an individual's sex appeal or body image, which is also found to be linked with higher levels of self esteem. Childhood obesity is a growing global concern and physical exercise may help decrease some of the effects of childhood and adult obesity. Health care providers often call exercise the "miracle" or "wonder" drug alluding to the wide variety of proven benefits that it provides (Stampfer et al. 2000).

Physical conditioning programme provides an opportunity for the development and maintenance of physical fitness. It offers an opportunity for the facilitation of normal growth of a child and prevents the reversal factors of the performance such as strength, endurance, flexibility, speed. By undergoing a physical conditioning programme, one experiences a number of changes that make better performance and faster recovery possible. Through repeated muscular 10 work, strength is gained and as a result one can produce more power as there is a faster contraction, which means, gain in both power and speed. Conditioning the body through regular exercise enables an individual to meet emergencies more effectively.

The exercise intensity of an activity or movement indicates how much power or force is used in performing that exercise. The intensity of an activity determines how much and what type of fuel is needed to provide the energy required for that exercise. Any activity that burns 3.5 to 7 kcal 8/min or

the equal end of 3 to 6 metabolic equivalents and results in achieving 60 to 73 percent of peak heart rate. An estimate of a person's peak heart can be obtained by subtracting the person's age100m/220. Example moderate physical activities include walking briskly moving the lawn, dancing, swimming, or bicycling a level terrain. A person should be some excretion but should be able tom carry and a conversation comfortably during the activity. Any activity that burns more than 7kcal/min or the equivalent of 6 or more metabolic 11 equivalent and results in achieving 74 to 88 percent of peak heart rate. An estimate of person's peak heart rate can be obtained by subtracting the person's ages obtained by subtracting the person' age from 220. Example of vigorous physical activity includes jogging moving. The lawn with a no motorized push mover, chopping wood, participating in high impact aerobic dancing, swimming continuous laps, or bicycling uphill. Vigorous intensity physical activity may be intense enough to represent a substantial challenge to an individual and results in a significant increase in heart and breathing rate. Vigorous activity full of physical or mental strength or active force carried out forcefully and energetically. (Mc Donald & Pamela, 2010)

Speed is the ability to move quickly in a specific direction. It is often measured by the time it takes to cover a certain distance, such as in sprinting or other activities that require rapid movements. Speed is vital in numerous sports, including track and field, football, basketball, and soccer, where players need to cover distances quickly or accelerate rapidly to achieve success in competitions. Speed is influenced by several factors, including muscle fiber composition, neuromuscular coordination, and cardiovascular endurance (Häkkinen et al., 2003).

Statement of the Problem: The purpose of the present investigation is to find out Effect of Physical Exercises on Speed among Post Graduate Students.

Objective of the Study: To find out the significant difference in Speed of the subjects by Physical Exercises among experimental group.

Hypotheses: It was hypothesized that there would be a significant difference in Speed of the subjects by Physical Exercises among experimental group.

Methodology

The purpose of the study was to find out the Effect of Physical Exercises on Speed among Post Graduate Students. It was hypothesized that there would be significant differences on physical fitness variables due to the Effect of Physical Exercises among Post Graduate Students. For the present study the 40 Post Graduate Students from Govt. First Grade College for Women, Vijayapura District of Karnataka State was selected at random and their age ranged from 19 to 25 years. Criterion measures for this study were test items for speed. To measure speed about the Post Graduate Students, manual method was used. For the present study pre test - post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of twenty each and named as Group „A" and Group „B". Group„A" underwent Physical Exercises and Group „B" has not undergone any training. The data was collected before and after Eight weeks of training. The data was analyzed by applying dependent „t" test. The level of significance was set at 0.05.

Results and Discussions: After the six weeks Circuit training there would be significant decreases in Speed.

The data on Speed before and after the Physical Exercises of experimental and control groups are analyzed and presented in Table-1.

Hypothesis: It was hypothesized that there would be a significant difference in Speed of the subjects by Physical Exercises among experimental group.

Table No.1 Showing the Pre-test and Post–test for Physical Exercises Experimental Group on Speed

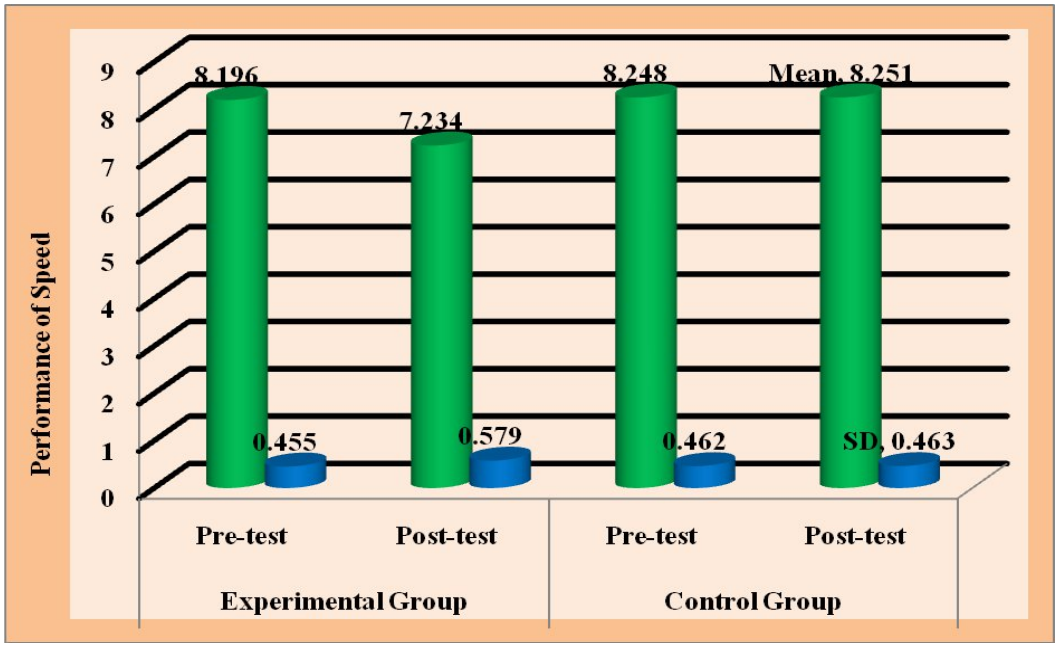
Variable	Group	Test	Mean	SD	t- Value
Speed	Experimental Group	Pre-test	8.196	.455	**11.533***
		Post-test	7.234	.579	
	Control Group	Pre-test	8.248	.462	**-.391**
		Post-test	8.251	.463	

***Significant at 0.05 level**
(Table value required for significance at 0.05 level for't'-test is 1.684)

It is evident from table-1 that significant difference was found in Physical Exercises effect between pre and post speed of Post Graduate Students in the experimental group as the t-value was found 11.533. This was a higher value than the required value at.05 level of significance, but an insignificant difference was found between pre and post speed of Post Graduate Students in the control group as the t-value was found -.391. This was a lower value than the required value at.05 level of significance. The scores are also illustrated in the figure-1.

The comparison of speed mean scores of pre and post tests among groups is shown in graphical representation in Fig.1

Figure No.1 Showing the Pre-test and Post–test for Physical Exercises Experimental Group on speed Performance.



The above figure 1. Indicates that the post test values of Experimental group significantly improved the performance of speed and also the post test values of speed were less than the pre test values due to

Eight weeks of Physical Exercises. The Control group pre- test and post- test performance of speed no improvement.

Discussion

The raw data was computed and analysis of data showed that the Physical Exercises improved significantly in the speed of experimental group. The reason for better performance in experimental group may be continues participation in training and the load which was experienced by the subjects in the training programme was adequate to produce significant development in the speed. In case of control group it may be due to their non-participation in the training programme. Circuit training is used as the latest methodology for developing the speed. The activities which activate the stretch reflex mechanism affect the body power and come under the category Physical Exercises.

Discussion of Hypothesis

On the basis of the above findings, it is obvious that the treatment contributed to the development of speed. Hence, the hypothesis framed for the study is accepted.

Conclusion

Eight weeks of Physical Exercises has shown significant improvement on speed among Post Graduate Students.

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