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Effect of Swissball Training on Selected Physical Variables among College Men

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Abstract

The purpose of the study was to investigate the effect of swissball training on selected physical variables among college men. It was hypothesized that there would be significant differences on selected physical variables due to the effect of swissball training among college men. For the present study the 30 male college men from Selvam College of Physical Education, Namakkal, Tamilnadu were selected at random and their age ranged from 18 to 25 years. 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 fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent swissball training and Group 'B' have not underwent any training. Speed was assessed by 50 metre dash and agility was assessed by shuttle run. The data was collected before and after twelve weeks of training. The data was analyzed by applying Analysis of Co-Variance (ANCOVA). The level of significance was set at 0.05. The swissball training had positive impact on speed and agility among college men.

Keywords: Swissball Training, Physical, Speed, Agility, Football.

Introduction

Sport training is a basic preparation for enhanced performance through physical exercise. Sports activities consist of motor movement and action and their success depends to a great extent on how correctly they are performed. Techniques of training and improvement of tactical efficiency play a vital role in a training process. Joanne Posner Mayer in the late '80s introduced the concept of ball exercises from Europe to America. She was the first to really promote the use of ball exercises in the fitness industry exclusively. Since then, exercise balls have quickly made its way into commercial gyms around the globe. In recent times, professionals are promoting the awareness and use of ball exercises to athletes from every sport at every level. There is variety of exercise balls on different sizes and are often used. Swissball is a ball which is filled with air and it has a portable platform which gives bouncy effect to the body to maintain balance while performing exercise. Exercises are mostly designed with the part or the whole of the body to make physically fit. Different researches have made on all aspects of exercise training and their significance and effect on the physical fitness. Any specific conditioning for a particular activity will bring a definite change in physical fitness level and having this in mind, a new set of exercises called swissball exercises has been developed especially to improve fitness.

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Methodology

The purpose of the study was to investigate the effect of swissball training on selected physical variables among college men. It was hypothesized that there would be significant differences on selected physical variables due to the effect of swissball training among college men. For the present study the 30 male college men from Selvam College of Physical Education, Namakkal,Tamilnadu were selected at random and their age ranged from 18 to 25 years. 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 fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent swissball training and Group 'B' have not underwent any training. Speed was assessed by 50 metre dash and agility was assessed by shuttle run. The data was collected before and after twelve weeks of training. The data was analyzed by applying Analysis of Co-Variance (ANCOVA). The level of significance was set at 0.05.

Results

The findings pertaining to analysis of co-variance between experimental group and control group on selected physical variables among college men for pre-post test respectively have been presented in table I to II.

Table I. ANCOVA between Experimental Group and Control Group on Speed of College men for Pre, Post and Adjusted Test

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	7.56	7.50	BG	0.07	1	0.07	0.03
			WG	50.41	28	1.80	
Post Test Mean	7.11	7.42	BG	164.03	1	164.03	62.60*
			WG	73.52	28	2.62	
Adjusted Post Mean	7.12	7.42	BG	154.56	1	154.56	80.50*
			WG	51.92	27	1.92	

*** Significant at 0.05 level.** **df: 1/27= 4.21**

Table I revealed that the obtained 'F' value of 80.50 was found to be significant at 0.05 level with df 1, 27 as the tabulated value of 4.21 required to be significant at 0.05 level. The same table indicated that there was a significant difference in adjusted means of speed of college men between experimental group and control group. The graphical representation of data has been presented in figure I.

Figure I. Comparisons of Pre – Test Means Post – Test Means and Adjusted Post – Test Means for Control group and Experimental Group in relation to Speed

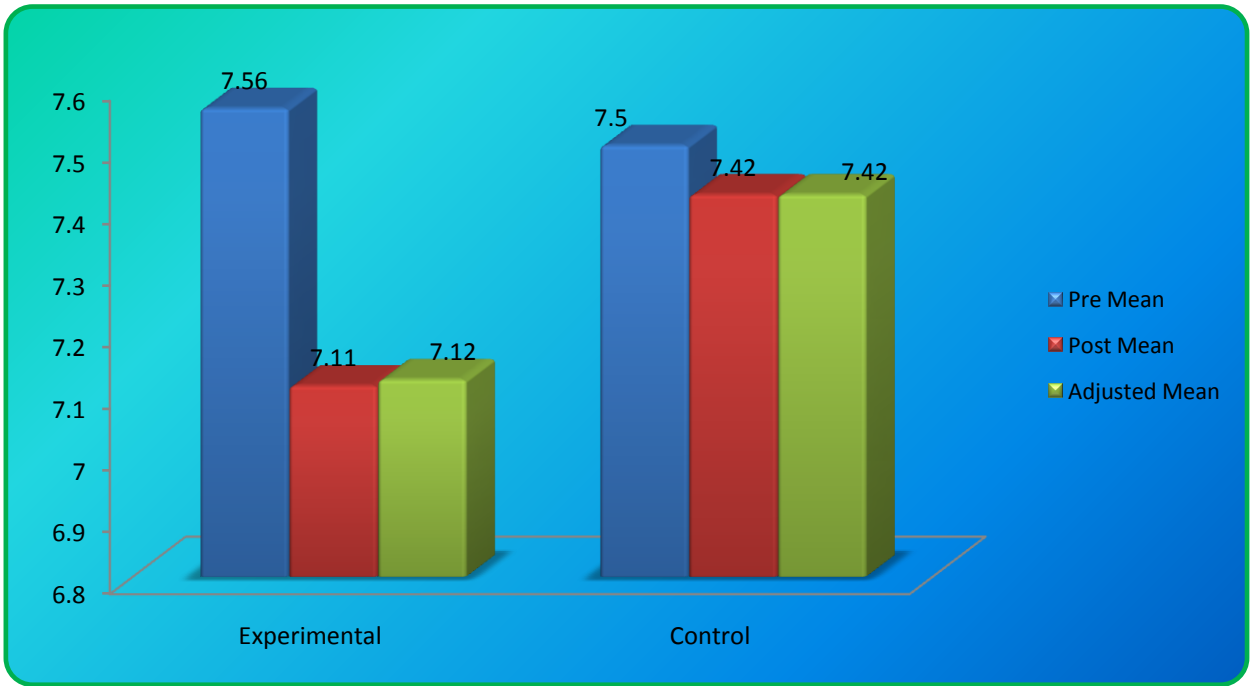


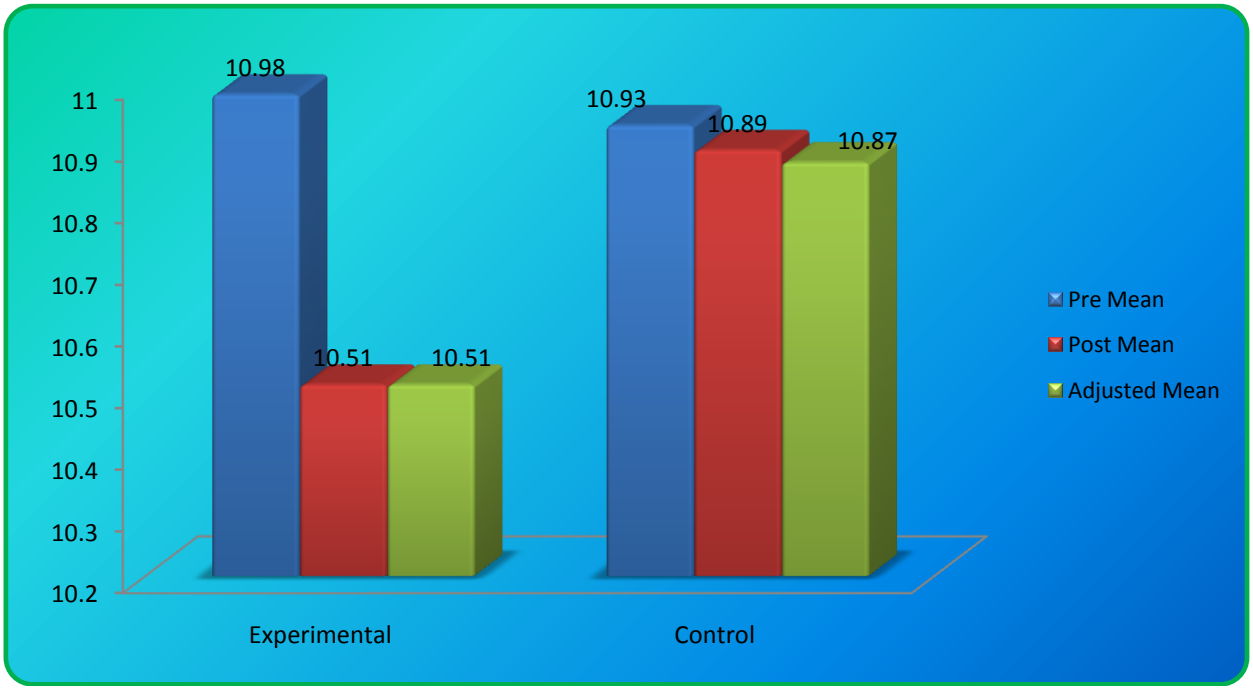
Table II. ANCOVA between Experimental Group and Control Group on Agility of College men for Pre, Post and Adjusted Test

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	10.98	10.93	BG	12.14	1	12.14	2.27
			WG	149.76	28	5.34	
Post Test Mean	10.51	10.89	BG	251.82	1	251.82	32.87*
			WG	214.56	28	7.66	
Adjusted Post Mean	10.51	10.87	BG	167.43	1	167.43	21.43*
			WG	211.12	27	7.81	

*** Significant at 0.05 level.** **df: 1/27= 4.21**

Table II revealed that the obtained 'F' value of 21.43 was found to be significant at 0.05 level with df 1, 27 as the tabulated value of 4.21 required to be significant at 0.05 level. The same table indicated that there was a significant difference in adjusted means of agility of college men between experimental group and control group. The graphical representation of data has been presented in figure II.

Figure II. Comparisons of Pre – Test Means Post – Test Means and Adjusted Post – Test Means for Control group and Experimental Group in relation to Agility



In case of physical variables i.e. speed and agility the results between pre and post (12 weeks) test has been found significantly higher in experimental group in comparison to control group. The findings of the present study have strongly indicates that swissball training of twelve weeks have significant effect on selected physical variables i.e., speed and agility of college men. Hence the hypothesis earlier set that swissball training programme would have been significant effect on selected physical variables in light of the same the hypothesis was accepted.

Conclusions

On the basis of findings and within the limitations of the study the following conclusions were drawn:

1. The swissball training had positive impact on speed and agility among college men.
2. The experimental group showed better improvement on speed and agility among college men than the control group.

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