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EFFECT OF TWELVE WEEKS SAQ TRAINING PROGRAMME ON SELECTED MOTOR FITNESS VARIABLES AMONG SPRINTERS

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Abstract:

The purpose of the study was to investigate the effect of twelve weeks SAQ training programme on selected motor fitness variables among sprinters. It was hypothesized that there would have been a significant effect of twelve weeks SAQ drill training programme on selected motor fitness variables among sprinters. For the present study the subjects were 30 male sprinters from Tirunelveli district, Tamilnadu were selected as subjects at random and their age ranged from 18 to 25 years. For the present study pre test – post test randomized 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 SAQ training and Group 'B' underwent no training. The data was collected before and after twelve weeks of training. The data was analyzed by applying Analysis of Co-Variance (ANCOVA) technique to find out the effect of SAQ training programme on selected motor fitness variables among sprinters. The level of significance was set at 0.05. Significant effect of SAQ training was found on speed and agility

Key Words: SAQ Training, Speed & Agility

Introduction:

Speed, agility, and quickness training has become a popular way to train athletes. This method has been around for several years. Speed, agility, and quickness training may be used to increase speed or strength, or the ability to exert maximal force during high speed movements. Some benefits of speed, agility, and quickness training include increases in muscular power in all multiplanar movements; brain signal efficiency; kinaesthetic or body spatial awareness; motor skills; and reaction time. Speed, agility, and quickness training can cover the complete spectrum of training intensity, from low to high intensity. SAQ drills can also be used to teach movement, warm-up, or to condition an athlete. No significant preparation is needed to participate at this level of speed, agility, and quickness training. Higher intensity drills require a significant level of preparation. A simple approach to safe participation and increased effectiveness is to start a concurrent strength-training program when starting speed, agility, and quickness training (Pearson & Naylor, 2003).

Sprinting is the competitive athletic sport of running distances of 400 metres or less. Sprinting is running over a short distance in a limited period of time. It is used in many sports that incorporate running, typically as a way of quickly reaching a target or goal, or avoiding or catching an opponent. At the professional level, sprinters begin the race by assuming a crouching position in the starting blocks before leaning forward and gradually moving into an upright position as the race progresses and momentum is gained. In this modern era, few scientific studies have been conducted to investigate effective methods of developing speed and agility conditioning among sprinters.

Objective of the Study:

The purpose of the study was to investigate the effect of twelve weeks SAQ training programme on selected motor fitness variables among sprinters. It was hypothesized that there would have been a significant effect of twelve weeks SAQ drill training programme on selected motor fitness variables among sprinters.

Procedure and Methodology:

For the present study the subjects were 30 male sprinters from Tirunelveli district, Tamilnadu were selected as subjects at random and their age ranged from 18 to 25 years. For the present study pre test – post test randomized 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 SAQ training and Group 'B' underwent no training. The data was collected before and after twelve weeks of training. The data was analyzed by applying Analysis of Co-Variance (ANCOVA) technique to find out the effect of SAQ training programme on selected motor fitness variables among sprinters. 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 motor fitness variables among sprinters for pre-post test respectively have been presented in table No.1 to 3.

Table 1: ANCOVA between Experimental Group and Control Group on Speed of Sprinters for Pre, Post and Adjusted Test

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	5.77	5.75	BG	229.63	1	229.63	0.86
			WG	7412.66	28	264.73	
Post Test Mean	5.55	5.73	BG	1950.53	1	1950.53	5.44*
			WG	10035.33	28	358.40	
Adjusted Post Mean	5.55	5.73	BG	2117.92	1	2117.92	5.63*
			WG	10150.16	27	375.93	

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

Table 1 revealed that the obtained 'F' value of 5.63 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 sprinters between experimental group and control group. The graphical representation of data has been presented in figure I.

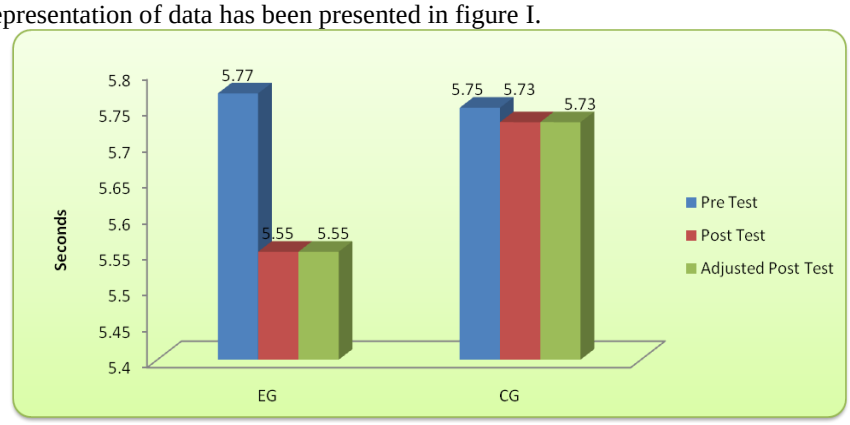

Figure 1: Comparisons of Pre – Test Means Post – Test Means and Adjusted Post – Test Means for Control group and Experimental Group in relation to Speed

Table 2: ANCOVA between Experimental Group and Control Group on Agility of Sprinters for Pre, Post and Adjusted Test

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	10.24	10.25	BG	60.50	1	60.50	1.22
			WG	1383.86	28	49.42	
Post Test Mean	10.01	10.24	BG	3220.83	1	3220.83	84.58*
			WG	1066.13	28	38.07	
Adjusted Post Mean	10.02	10.24	BG	3148.82	1	3148.82	81.72*
			WG	1040.28	27	38.52	

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

Table 2 revealed that the obtained 'F' value of 81.72 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 sprinters between experimental group and control group. The graphical representation of data has been presented in figure II.

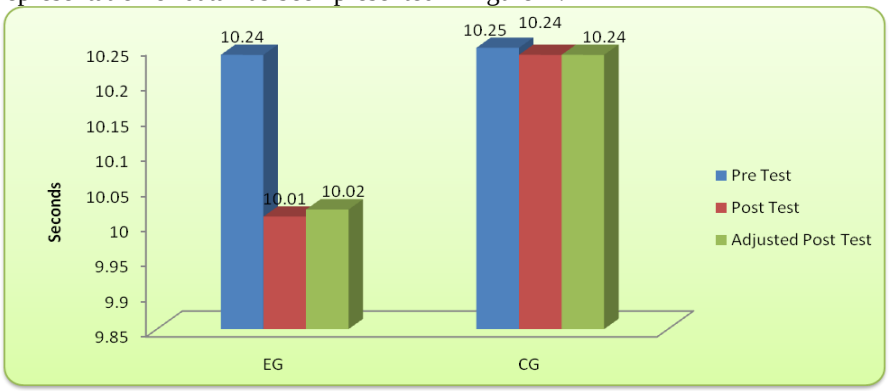

Figure 2: Comparisons of Pre – Test Means Post – Test Means and Adjusted Post – Test Means for Control group and Experimental Group in relation to Agility

In case of motor fitness 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 SAQ training of twelve weeks have significant effect on selected motor fitness variables i.e., speed and agility of sprinters. Hence the hypothesis earlier set that SAQ training programme would have been significant effect on selected motor fitness 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: Significant effect of SAQ training was found on speed and agility.

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