



Effects of Saq Training and Plyometric Training on Speed Among College Men Kabaddi Players

KEYWORDS

SAQ training, Plyometric training, speed, kabaddi

Mr.G.Velmurugan

Ph.D Scholar (Full-time) Department of Physical Education, Bharathidasan University, Tiruchirappalli.

Dr.A.Palanisamy

Associate Professor, Department of Physical Education, Bharathidasan University, Tiruchirappalli-620024.

ABSTRACT *The purpose of the study was to find out the effects of SAQ training and plyometric training on speed among college men kabaddi players. To achieve the purpose of the study thirty college men kabaddi players of Alagappa University, karaikudi were selected randomly as subjects. The age range from 23 to 28 years, the selected subjects were assigned into three groups of fifteen each such as two experimental groups and one control group. The group I underwent SAQ training and group II underwent plyometric training for a duration of six weeks with four days per week in which the control group did not participate in any special training programme apart from the regular physical education activities as per the curriculum. The following variable namely speed was selected as criterion variable and was tested by using 50 meters run. All the subjects of the three groups were tested on selected dependent variable at prior and immediately after the training programme. The analysis of covariance (ANCOVA) was used to analyze the significant difference, if any among the adjusted post-test means of experimental and control group on each variable separately. Whenever the obtained 'f' ratio for adjusted post-test means was to found to be significant, the scheffe's test was applied, as a post hoc test to determine the paired mean differences. In all cases .05 level of confidence was fixed as the level of significance to test the 'f' ratio obtained by the analysis of covariance, the result support the facts that SAQ training and plyometric training can used to enhance speed among college men kabaddi players.*

INTRODUCTION

Training is a programme of exercise designed to improve the skills and increase the energy capacities of an athlete for a particular event (Fox, 1974).

Training improves the function of the circulatory, respiratory and the muscle systems, while practice is largely aimed at improving the control of muscular activity by the nervous system (Singh, 1984).

Speed, agility and quickness (SAQ) training may be used to increase speed or strength, or the ability to exert maximal force during the high- speed movements. Some benefits of speed, agility and quickness training include increases in muscular power in all multilane movements; brain signal efficiency or body spatial awareness; motor skills and reaction time.

SAQ is a system of progressive exercise and instruction aimed at developing fundamental motor abilities to enhance the capability of players/ athletes to be more skillful at faster speeds and with greater precision.

SAQ training plays an important role in motor co-ordination, acceleration, balance, agility and reaction developments at all stages and at all levels. It can be incorporated into fitness programme all year round indoor and outdoor- in designated circuits, isolated drills, and integrated exercises, and most importantly, during ball work.

Plyometric training is an intense, advanced form of exercise in which the muscles are first stretched, then contracted (the pre-stretching makes the muscle contract with greater force).

Plyometric involve power jumping, repetitive bounding and quick force production. When your muscles eccentrically contract, or shorten, then immediately stretch and lengthen, they produce maximal power ideal for athletic situations. It is a fast movement that happens over a short period.

HYPOTHESIS

1. It was hypothesized that there would be a significant im-

provement on speed due to SAQ training group and plyometric training group among college men kabaddi players.

METHODOLOGY

The purpose of the study was to find out the effects of SAQ training and plyometric training on speed. To achieve this purpose of the study thirty college men kabaddi players of Alagappa University, karaikudi were selected randomly as subjects. The age range from 23 to 28 years, the selected subjects were assigned into three groups of fifteen each such as two experimental groups and one control group. The group I underwent SAQ training and group II underwent plyometric training for a duration of six weeks with four days per week in which the control group did not participate in any special training programme apart from the regular physical education activities as per the curriculum. The following variable namely speed was selected as criterion variable and was tested by using 50 meters run. All the subjects of the three groups were tested on selected dependent variable at prior and immediately after the training programme. The analysis of covariance (ANCOVA) was used to analyze the significant difference, if any among the adjusted post-test means of experimental and control group on each variable separately. Whenever the obtained 'f' ratio for adjusted post-test means was to found to be significant, the scheffe's test was applied, as a post hoc test to determine the paired mean differences. In all cases .05 level of confidence was fixed as the level of significance to test the 'f' ratio obtained by the analysis of covariance, which was considered as an appropriate.

ANALYSIS OF THE DATA

The effect of SAQ training and plyometric training on criterion variables were analyzed and presented below.

SPEED

The analysis of covariance on speed of the pre and post test scores of SAQ training group, plyometric training group and control group have been analyzed and presented in table I.

TABLE I
ANALYSIS OF COVARIANCE OF THE DATA ON SPEED OF PRE AND POST TESTS SCORES OF SAQ TRAINING PLYOMETRIC TRAINING AND CONTROL GROUPS

Test	SAQ Training Group	Plyometric Training Group	Control Group	Source Of Variance	Sum of Squares	Df	Mean Squares	Obtained 'f' Ratio
Pre test								
Mean	6.85	6.85	6.83	Between within	0.002	2	.001	.195
S.D	0.08	0.06	0.08		0.162	27	.006	
Post test								
Mean	6.56	6.67	6.80	Between within	0.28	2	.143	13.50*
S.D	0.12	0.08	0.09		0.29	27	.011	
Adjusted Post test								
Mean	6.56	6.66	6.81	Between Within	.292	2	.146	13.65*
					.278	26	.011	

*Significant at .05 level of confidence.

(The table value required for significant at .05 level of confidence for 2 and 27 and 2 and 26 are 3.35 and 3.37 respectively).

The table I show that the adjusted post-test means of SAQ training group, plyometric training group and control group are 6.56, 6.66, 6.81 respectively. The obtained 'f' ratio of 13.65 for adjusted post-test means is more than the table value of 3.37 for df 2 and 26 required for significance at .05 level of confidence on speed.

The result of the study indicated that there was a significant difference between adjusted post-test means of SAQ training group, plyometric training group and control group on speed.

Since, three groups were compared, whenever the obtained 'f' ratio for adjusted post-test was found to be significant, the scheffe's test to find out the paired mean difference and it was presented in table II.

TABLE II
THE SCHEFFE'S TEST FOR THE DIFFERENCES BETWEEN PAIRED MEANS ON SPEED

SAQ Training Group	Plyometric Training Group	Control Group	Mean Differences	Confidence Interval value
6.56	6.66	-	0.01	0.12
6.56	-	6.81	0.25*	0.12
-	6.66	6.81	0.15*	0.12

* Significant at .05 level of confidence.

The table II shows that the mean difference values between SAQ training group and control group and plyometric training group and control group 0.25 and 0.15 respectively on speed which were greater than the required confidence interval value 0.12 for significance. And the mean difference value between SAQ training group and plyometric training group 0.01 on speed which was lesser than the required confidence interval value 0.12 for significance.

The result of the study showed that there was significant differences exist between SAQ training group and control group and plyometric training group and control group on speed. And no significant difference was found between SAQ training group and plyometric training group on speed.

The adjusted mean values of SAQ training, plyometric training and control groups on speed have been presented in the figure I.

SPEED

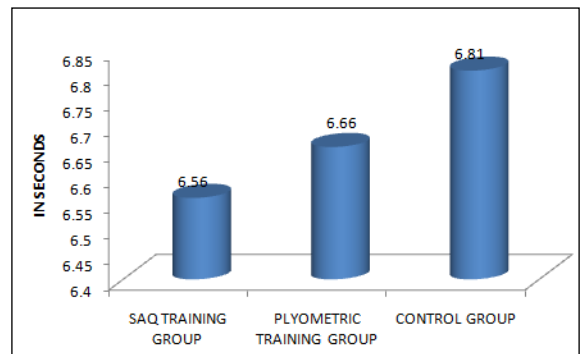


FIGURE-I
THE ADJUSTED MEAN VALUES OF SAQ TRAINING, PLYOMETRIC TRAINING AND CONTROL GROUPS ON SPEED

CONCLUSIONS

1. There was a significant difference among SAQ training group, plyometric training group and control group on speed.
2. There was a significant improvement on selected criterion variable due to SAQ training and plyometric training. However, the improvement on speed was better in SAQ training group when compared to plyometric training group.

REFERENCE

1. Alan Pearson, Speed, Agility and quickness. (2001) P.7 | 2. Fox .A. modern principles of athletic training. Saint Louis; (1974) P.33 | 3. Lee E. Brown, Vance A, Ferrigno, " Training for speed, agility and quickness". (2000)P.2 | 4. Singh, Hardayal. Sports training general theory and methods. Patiala; 1984 | 5. Thomas R. Essential of strength training and conditioning and national strength and conditioning association (2008) |