



Effect of Plyometric Training and SAQ Training on Selected Physical Fitness Variables among College Male Kabaddi Players

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Abstract

The purpose of the study was to find out the effect of plyometric training and SAQ running on selected physical fitness variables among college male kabaddi players. To achieve the purpose of the present study, forty five male kabaddi players from Affiliated Colleges of Bharathidasan University, Tiruchirappalli, Tamilnadu, India were selected as subjects at random and their ages ranged from 19 to 23 years. Experimental Group I was exposed to plyometric training, Experimental Group II was exposed to SAQ training and Control Group underwent no training. The duration of experimental period was 12 weeks. After the experimental treatment, all the forty five subjects were tested on their selected physical fitness and physiological parameters. The pre test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences, whenever the 'F' ratio for adjusted test was found to be significant, Scheffe's post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses. The SAQ training had shown better performance on speed than the plyometric training and control group. In case of back and leg strength both the experimental groups produced similar effect.

Keywords: Plyometric, SAQ, Kabaddi.

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Introduction

Sports do now not solely make average human beings because fun, however for so many reasons. It helps humans remain match in accordance with conduct a healthier life, then too come a action or settle below within their lives. No doubt, in accordance with spend amusement time, that is the sports activities so lead a rising role in current society. Among humans of whole a long time then each sexes, recreation has a frequent appeal. The broad length about experiences then emotions so much arise out of participation, performance, disappointment, fatigue, penalty alleviation and emotions concerning belonging are a vast part over the request of sports. Plyometrics has long been recognised in conformity with supply specialised instruction because incidents, both into overall performance dynamics then of addressing the necessity in conformity with increase the dimension concerning manufacturing on power. It is widely believed as an

athlete enhances the capability because force yield with the application about the overdraw summarization cycle (SSC) up to expectation presents elastic strength contained into the Series Elastic Components. Training among speed, agility, or velocity intention impact the complete spread on training intensity, out of many after high intensity. Each man or woman will be a part of a training programme at a one of a kind level; thus, coaching depth need to correlate together with the competencies on the individual. All execute uses low-intensity speed, agility, or severity drills for a number of applications. SAQ It is also feasible in accordance with use drills after educate motion, warm-up, or to situation an athlete (Avinash & Vivek , 2016).

Methodology

The purpose of the study was to find out the effect of plyometric training and SAQ running on selected physical fitness variables among college male kabaddi players. To achieve the purpose of the present study, forty five male kabaddi players from Affiliated Colleges of Bharathidasan University, Tiruchirappalli, Tamilnadu, India were selected as subjects at random and their ages ranged from 19 to 23 years. Experimental Group I was exposed to plyometric training, Experimental Group II was exposed to SAQ training and

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Control Group underwent no training. The duration of experimental period was 12 weeks. After the experimental treatment, all the forty five subjects were tested on their selected physical fitness and physiological parameters. The pre test and post test scores were subjected to statistical analysis using Analysis of

Covariance (ANCOVA) to find out the significance among the mean differences, whenever the ‘F’ ratio for adjusted test was found to be significant, Scheffe’s post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses.

Results

Table 1. Calculation of ANCOVA on speed

	PTG	SAQTG	Control Group	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
Initial means	7.35	7.38	7.36	BG	0.005	2	0.003	0.249
				WG	0.429	42	0.010	
Final means	7.15	7.05	7.35	BG	0.670	2	0.335	37.604*
				WG	0.374	42	0.009	
Adjusted Final means	7.15	7.05	7.35	BG	0.669	2	0.334	36.623*
				WG	0.374	41	0.009	

An assessment of table - 1 point out that the pre test means of plyometric training, SAQ training and control groups were 7.35, 7.38 and 7.36 respectively. The attained F-ratio for the pre-test was 0.249 and the table F-ratio was 3.22. Hence the pre-test mean F-ratio was insignificant at 0.05 level of confidence for the degree of freedom 2 and 42. This established that there were no significant difference between the experimental and control groups representing that the course of action of randomization of the groups was ideal while conveying the subjects to groups. The post-test means of the plyometric training, SAQ training and control groups were 7.15, 7.05 and 7.35 respectively. The attained F-ratio for the post-test was 37.604 and the table F-ratio

was 3.22. Hence the post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 2 and 42. This confirmed that the disparity between the post test means of the focus were significant. The adjusted post-test means of the plyometric training, SAQ training and control groups were 7.15, 7.05 and 7.35 respectively. The attained F-ratio for the adjusted post-test means was 36.623 and the table F-ratio was 3.23. Hence the adjusted post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 2 and 41. This established that there was a noteworthy difference among the means owing to the experimental trainings on speed.

Table 2. The scheffe’s test for speed

Adjusted Final means			Mean Difference	Required CI
PTG	SAQTG	Control Group		
7.15	7.05	---	0.10*	0.08
7.15	---	7.35	0.20*	
---	7.05	7.35	0.30*	

* Significant at 0.05 level of confidence

The multiple comparisons showed in Table 2 proved that there existed significant differences between the adjusted means of plyometric training and SAQ

training (0.10), plyometric training and control group (0.20), SAQ training and control group (0.30) at 0.05

level of confidence with the confidence interval value of 0.08.

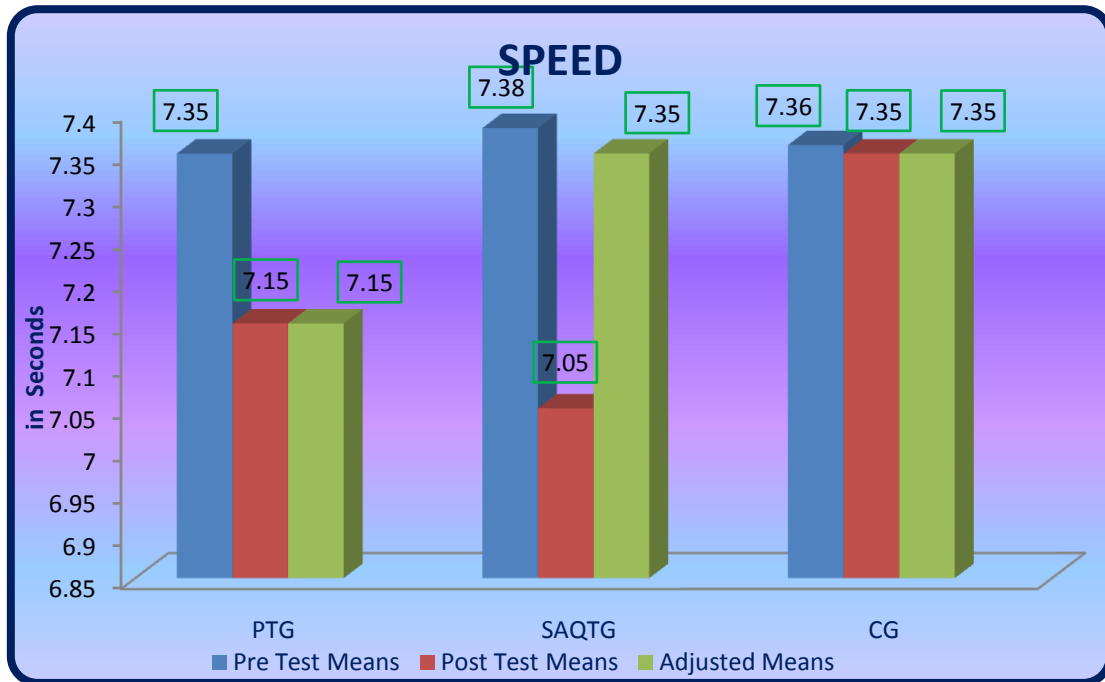


Figure 1. Graphical illustration of speed

Table 3. Calculation of ANCOVA on back and leg strength

	PTG	SAQTG	Control Group	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
Initial means	90.60	89.26	90.73	BG	19.733	2	9.867	0.850
				WG	487.467	42	11.606	
Final means	101.73	101.66	90.20	BG	1322.533	2	661.267	52.935*
				WG	524.667	42	12.492	
Adjusted Final means	101.73	101.67	90.19	BG	1306.999	2	653.500	51.069*
				WG	524.654	41	12.796	

An assessment of table - 3 point out that the pre test means of plyometric training, SAQ training and control groups were 90.60, 89.26 and 90.73 respectively. The attained F-ratio for the pre-test was 0.850 and the table F-ratio was 3.22. Hence the pre-test mean F-ratio was insignificant at 0.05 level of confidence for the degree of freedom 2 and 42. This established that there were no significant difference between the experimental and control groups representing that the course of action of randomization of the groups was ideal while conveying

the subjects to groups. The post-test means of the plyometric training, SAQ training and control groups were 101.73, 101.66 and 90.20 respectively. The attained F-ratio for the post-test was 52.935 and the table F-ratio was 3.22. Hence the post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 2 and 42. This confirmed that the disparity between the post test means of the focus were significant. The adjusted post-test means of the plyometric training, SAQ training and control groups

were 101.73, 101.67 and 90.19 respectively. The attained F-ratio for the adjusted post-test means was 51.069 and the table F-ratio was 3.23. Hence the adjusted post-test mean F-ratio was significant at 0.05 level of confidence

for the degree of freedom 2 and 41. This established that there was a noteworthy difference among the means owing to the experimental trainings on back and leg strength.

Table 4. The scheffe's test for back and leg strength

Adjusted Final means			Mean Difference	Required CI
PTG	SAQTG	Control Group		
101.73	101.67	---	0.06	3.31
101.73	---	90.19	11.54*	
---	101.67	90.19	11.48*	

* Significant at 0.05 level of confidence

The multiple comparisons showed in Table 4 proved that there existed significant differences between the adjusted means of plyometric training and control group (11.54), SAQ training and control group (11.48).

There was no significant difference between plyometric training and SAQ training (0.66) at 0.05 level of confidence with the confidence interval value of 3.31.

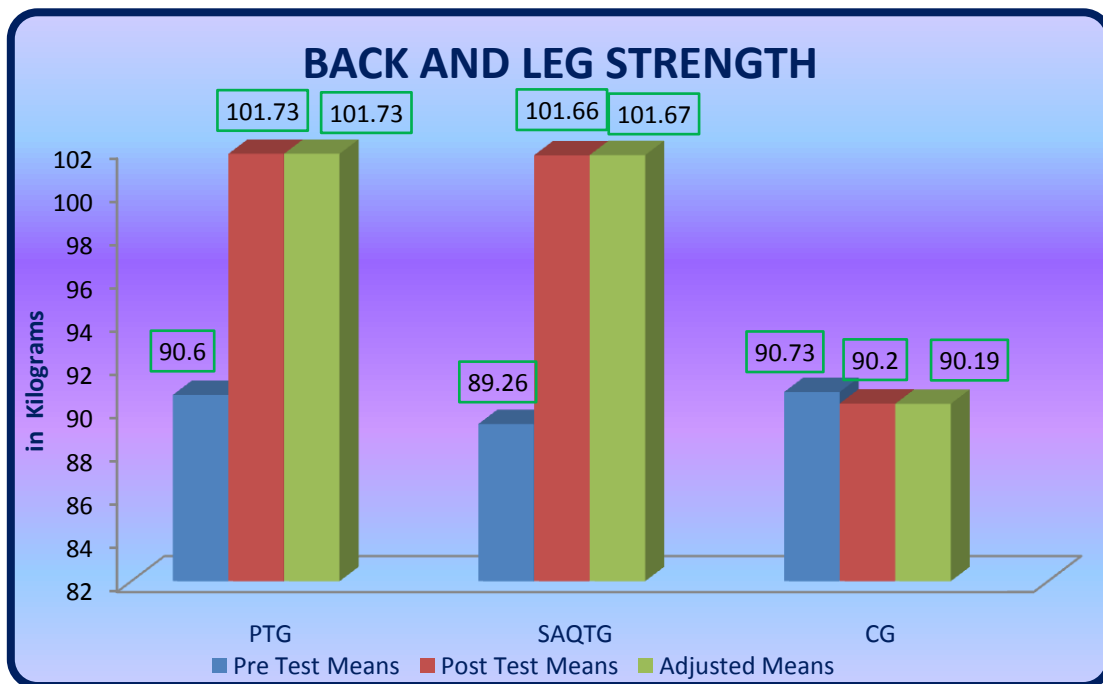


Figure II. Graphical illustration of back and leg strength

Conclusion

1. The SAQ training had shown better performance on speed than the plyometric training and control group.
2. In case of back and leg strength both the experimental groups produced similar effect.

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