



ISSN: 2456-0057
IJPNPE 2022; 7(1): 225-228
© 2022 IJPNPE
www.journalofsports.com
Received: 16-11-2021
Accepted: 19-12-2021

S Tamilselvan
Ph.D. Scholar, Department of
Physical Education, Annamalai
University, Chidambaram,
Tamil Nadu, India

Dr. MA Hassan
(Research Guide), Professor,
Department of Sports Sciences,
Annamalai University,
Chidambaram, Tamil Nadu,
India

Impact of SAQ versus skill based training adaptations on agility performance of male kabaddi players

S Tamilselvan and Dr. MA Hassan

Abstract

The purpose of the study is to investigate the relative effect of SAQ training versus skill based training on agility performance of kabaddi players. To achieve the purpose of the study, forty five male kabaddi players from Annamalai University, Chidambaram, Tamil Nadu, India were selected as subjects. Their age ranged from 18 years to 23 years. The selected subjects were randomly assigned into three equal groups of 15 subjects each. Group-I underwent SAQ training, Group-II underwent skill based training and group-III acted as control. The selected dependent variable agility was assessed by shuttle run test before as well as after training. The assessed data of the three groups was analyzed through paired 't' test. Additionally, magnitude (%) of changes was also calculated. To abolish the early mean disparity, the three groups data (pre & post) were calculated through ANCOVA statistics. When the 'F' (adjusted) score in ANCOVA was high, the post hoc (Scheffe's) test was followed. The confidence level 0.05 was set. Due to the effect of SAQ and skill based training the agility performance of male kabaddi players were notably progressed however, SAQ training was much superior to Skill based training in developing agility performance of male kabaddi players.

Keywords: SAQ training, skill based training, agility and kabaddi players

Introduction

In the modern competitive sports, seriousness towards work and workouts plays important role in achieving high performance in competitions. Outstanding players have been found to be more sober, disciplined, practical, and tough-minded. Competitions now a day are so tough that only those achieve high performance who trains for long hours. Kabaddi is although game requiring high physical fitness and quick reflexes, one has to work hard and tolerate mental strain besides physical stress of training. There is no place for a tender minded person in competitive kabaddi. Self-discipline and confidence are other qualities that are required to obtain high performance in kabaddi. The kabaddi players face more man-to-man combats and hence require physical and mental toughness.

SAQ training is fast becoming the most popular exercise in the world today. Even in the sports world, many players and coaches did not emphasize the importance of SAQ training if their particular sport did not require them to have high levels of muscular power in order to be competitive. However, in recent years the amount of information and research on SAQ training has exploded. Players of all types, from the professional to the weekend enthusiast now understand the potential benefits of partaking in SAQ training program.

Sport skills are voluntary, coordinated tasks with sport-specific goals. Learning basic movement skills is the first step toward learning sport-specific skills for athletic performance. There are broadly two categories of skills that a kabaddi player needs to learn are offensive skills and defensive skills. Sports Specific Trainers can help improve strength, flexibility and stamina to improve performance in specific sports. Skill training is all about developing physical conditions to improve performance and skills at a particular sport. Understanding the needs of the game, training and practicing at the correct pace is essential in order to meet sports requirements.

Among sport conditioning coaches, there is considerable discussion regarding the efficiency of Training methods that improve agility performance. But the best method for achieving improvement in agility performance is disputed.

Corresponding Author:
S Tamilselvan
Ph.D. Scholar, Department of
Physical Education, Annamalai
University, Chidambaram,
Tamil Nadu, India

SAQ training and skill based training are well-established training method and vital necessary for kabaddi players; however, there is a lack of information regarding SAQ training and skill based training impact on agility performance of kabaddi players.

Methodology

To achieve the purpose of the study, forty five male kabaddi players from Annamalai University, Chidambaram, Tamil Nadu, India were selected as subjects. Their age ranged from 18 years to 23 years. The selected subjects were randomly assigned into three equal groups of 15 subjects each. Group-I underwent SAQ training, Group-II underwent skill based training and group-III acted as control. All the subjects selected for this study were subjected to medical evaluation and certification from a doctor ensuring their health capacities to undergo the training programme. The requirement of the project was explained to all the subjects and all of them agreed voluntarily to undergo the testing and training programme. The selected dependent variable agility was assessed by shuttle run test before as well as after training.

Training Programme

The experimental group-I performed SAQ training, group-II performed skill based training. The SAQ and skill based training groups participated in a 12-week training program performing a variety of exercises designed. After the initial measurements the specially designed training programme was given to the subjects of the experimental group-I named as SAQ (speed, agility and quickness) training. The training sessions were conducted three days a week i.e. (Monday, Wednesday, and Friday) over a period of twelve weeks. Each experimental session was of 30-45 minutes duration excluding warm-up and warm-down. After one week of general physical conditioning the training was administrated to the experimental group, which includes speed, agility, and quickness drills. The SAQ training sessions were supervised

by experienced coaches. The experimental group undertook three SAQ training sessions in a week. Sessions were progressively structured to gradually increase intensity over each of the 12 weeks. The subject's training zone was fixed at 65%HRmax to 90%HRmax. The training intensity was increased progressively from first week to proceeding week. The frequency of training was thrice in a week. The duration of warm-up and warm-down were fixed at ten minutes respectively.

To fix the training load for the experimental group-II (skill based training) the subjects were examined for their exercise heart rate in response to different work bouts, for proposed repetitions and sets, alternating with active recovery based on work-rest ratio. The subject's training zone was computed using Karvonen formula and it was fixed at 65%HRmax to 90%HRmax for skill based training. They performed eight exercises per session with proposed repetition and sets and the intensity of exercise was increased once in two weeks. The work rest ratio of 1:1 between exercises and 1:3 between sets was given.

Statistical Technique

The data collected from the experimental and control groups on agility was statistically analyzed by paired 't' test to find out the significant differences if any between the pre and post test. Further, percentage of changes was calculated to find out the changes in selected dependent variables due to the impact of experimental treatment.

The data collected from the three groups prior to and post experimentation were statistically analyzed by Analysis of Covariance (ANCOVA). Since three groups were involved, whenever the obtained 'F' ratio value was found to be significant for adjusted post test means, the Scheffe's test was applied as post hoc test. In all the cases the level of confidence was fixed at 0.05 level for significance.

The kabaddi player's agility performance was analyzed statistically and presented in table- 1.

Table 1: Paired 't' Test Results and % of Changes on Agility of Chosen Three Group's

Group	Test	N	Mean	SD	DM	't' - ratio	%
SAQ Training	Pre	15	11.13	0.54	0.95	13.65*	8.57
	Post	15	10.18	0.35			
Skill Based Training	Pre	15	11.06	1.02	0.55	6.73*	4.90
	Post	15	10.52	0.75			
Control	Pre	15	11.02	0.50	0.06	0.46	0.57
	Post	15	11.08	0.56			

Table value for df 14 is 2.15(*significant)

The pre and post values of both training groups differ considerably since the 't' values of SAQ (13.65) as well as skill based training (6.73) groups were greater than the table value (df14=2.15). After 12 weeks of treatment, SAQ (8.57%)

and skill based training (4.9%), group's agility performance enhanced considerably.

By using ANCOVA statistics, the agility performance of all 3 groups were analyzed and exhibited in table-2.

Table 2: ANCOVA Statistics Output on Agility Performance of Chosen Three Group's

	SAQ Training	Skill Based Training	Control	SoV	SS	df	MS	'F' ratio
Adjusted Mean	10.14	10.52	11.12	B	7.30	2	3.65	38.54*
				W	3.88	41	0.095	

(Table value for df 2 & 41 is 3.23)*Significant (.05 level)

The ANCOVA result proved that the adjusted final means (SAQ=10.14, SBT=10.52 & CG=11.12) on agility performance of all 3 chosen groups significantly differs, as the derived 'F' value (38.54) is better than the required value

(df 2 & 41 =3.23).

As the adjusted final means is significant, the follow up test was applied as put on view in table-3.

Table 3: Scheffe's Test Outcome on Agility Performance of Three Groups

Variable	SAQ Training	Skill Based Training	Control	MD	CI
Agility	10.14	10.52		0.38*	0.28
	10.14		11.12	0.98*	0.28
		10.52	11.12	0.60*	0.28

*Significant (.05)

It proved that due to SAQ (0.38) and skill based training (0.98) the agility performance was greatly enhanced. Though, SAQ training was much better than skill based training (0.60)

since the mean differences (0.38, 0.98 & 0.60) are higher than CI value (0.28). Chosen three group's agility performance scores are illustrated in figure-1.

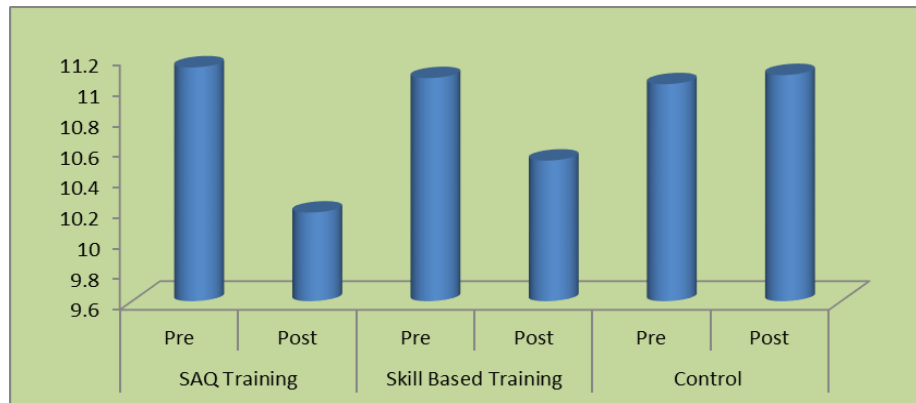


Fig 1: Chart Showing Agility Performance of Chosen Groups

Discussion

Twelve weeks of SAQ and skill based working outs had positive impact on agility performance of the kabaddi players. These results demonstrate that specific speed and agility training (SAQ), as part of the overall training process, can be considered a useful tool for the improvement of speed and agility among kabaddi players. Azmi, & Kusnanik, (2018) [1] found greater increase in speed, agility and acceleration due to speed, agility and quickness training program. This result is in agreement with Polman *et al.*, (2004) [6] who found that SAQ training was effective in the physical conditioning due to a significant improvement in lateral agility. It seems, therefore, that speed, agility and quickness should be viewed as independent motor abilities, which have limited influence on each other, and thus specific training is required for each (Little & Williams, 2006) [5]. Although speed represents a very important component of fitness, quickness (acceleration speed during the first steps) is probably more important.

Previous study conducted by Sakthivel and Kumaresan (2020) [9] also found significant improvement in physical fitness variables like agility and overall playing ability of inter university level male Kabaddi players due to specific kabaddi skill training. Ravindran, (2019) [7] investigated the effect of game-specific training on playing ability among kabaddi players and found significant improvement in kabaddi playing ability. Game-based training is increasingly being used as a means of improving the skill and physical fitness levels of team sport athletes (Reilly & White, 2004; Gabbett, 2002; Gamble, 2004; Sassi *et al.*, 2004a & 2004b) [8, 2, 4, 10, 11] as it allows the simulation of movement patterns of team sports, while maintaining a competitive environment where athletes must perform under pressure and while fatigued (Gabbett, 2003) [2]. Perhaps more importantly, game-based training offers an additional challenge to team-sport athletes that would not normally be present in non-skill related conditioning activities.

Conclusion

Due to the effect of SAQ training (8.57%) and skill based

training (4.90%) the agility performance of male kabaddi players were remarkably enhanced. However, SAQ training was much superior to Skill based training in developing agility performance of male kabaddi players. This study outcome makes obvious that specific SAQ and skill based training can be a useful training tool for the enhancement different qualities of kabaddi players.

References

1. Azmi K, Kusnanik NW. Effect of Exercise Program Speed, Agility, and Quickness (SAQ) in Improving Speed, Agility, and Acceleration. *Journal of Physics: Conf. Series.* 2018;947:012043.
2. Gabbett T. Increasing Training Intensity in Team Sport Athletes, *Strength and Conditioning Coach.* 2003;11:3-6.
3. Gabbett TJ. Training Injuries in Rugby League: An Evaluation of Skill-Based Conditioning Games, *Journal of Strength and Conditioning Research.* 2002;16:236-241.
4. Gamble P. A Skill-Based Conditioning Games Approach to Metabolic Conditioning for Elite Rugby Football Players, *Journal of Strength and Conditioning Research.* 2004;18:491-497.
5. Little T, Williams AG. Specificity of acceleration, maximum speed and agility in professional soccer players. *The Journal of Strength and Conditioning Research.* 2006;19(1):76-78.
6. Polman R, Walsh D, Bloomfield J, Nesti M. Effective conditioning of female soccer players. *Journal of Sports Sciences.* 2004;22(2):191-203.
7. Ravindran SRV. Effect of game-specific training programme on playing ability of kabaddi players, *Journal of Information and Computational Science.* 2019;9(11):1015-1018.
8. Reilly T, White C. Small-Sided Games as an Alternative To Interval Training For Soccer Players (Abstract), *Journal of Sports Sciences.* 2004;22:559.
9. Sakthivel S, Kumaresan G. Effect of specific kabaddi skill training with video feedback instructional training

on physical fitness variables and overall playing ability among inter university level male kabaddi players, Journal of Information and Computational Science. 2020;10(3):976-988.

10. Sassi R, Reilly T, Impellizzeri F. A Comparison of Small-Sided Games and Interval Training in Elite Professional Soccer Players (Abstract), Journal of Sports Sciences. 2004;22:562.
11. Sassi R, Reilly T, Impellizzeri F. Analysis of the Load Imposed on Under-19 Soccer Players During Typical Football Training Drills (Abstract), Journal of Sports Sciences. 2004;22:510.