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N Suresh
Assistant Director,
Department of Physical Education, Kongunadu College of Arts and Science, Coimbatore, Tamil Nadu, India

Dr. PK Kavithashri
Director of Physical Education, Department of Physical Education, Kongunadu, College of Arts and Science, Coimbatore, Tamil Nadu, India

Corresponding Author:
N Suresh
Assistant Director,
Department of Physical Education, Kongunadu College of Arts and Science, Coimbatore, Tamil Nadu, India

Effects of SAQ with resistance training on physical and skill performance of Tribal football players

N Suresh and Dr. PK Kavithashri

Abstract
The study was designed to investigate the effects of SAQ with resistance training on physical and skill performance of tribal football players. In order to achieve the purpose of the study, forty (N = 40) Academy teams were Sathyakathi football academy, Lotus Soccer Academy and Sree Krishana Soccer Academy as subjects were randomly. The subject age ranged from 14 to 18 years. The subjects were divided into two equal groups. The group – I was underwent to SAQ with resistance training (SAQWRT) for the period of 12 weeks and group II acted as control Group (CG), they did not participate any specific training programme. Each group consists of 20 subjects. Physical fitness components leg explosive power was assessed by standing broad jump and unit of measurement was in meters and the skill performance kicking was assessed by Warner's Soccer Test and unit of measurement was in meters. The result of the present study explores that SAQ with resistance training produced significant improvement over agility and dribbling ability among tribal football players.

Keywords: SAQ with resistance training, agility, dribbling and tribal football players.

Introduction
The SAQ training method consolidates speed, agility, and quickness through the range of soccer specialized exercises. All exercises are performed with optimal biomechanical movement structures, and consequently, energy and time savings are made. Power performance aside from major abilities has the need for optimal joint mobility, dynamic balance, appropriate locomotor system, and energy production among others. It is well known that soccer players rarely achieve maximal speed during play, but the initial starting phase and acceleration phase have a higher value in a soccer performance. Also, elite soccer players have greater values of high-intensity running when compared with total distance covered during a game. Agility is very important when it comes to soccer players. Not only do they use it to outmaneuver the opposition but it also helps in preventing injuries. Optimal activation and inhibition of muscle fibers can prevent muscle tears and even more prevent the joints from injuries.

Resistance exercise is also known as strength training, and it is performed to increase the strength and mass of muscles, bone strength and metabolism. It is important for you to gain sufficient muscle strength, because it can help you perform daily activities with ease. Resistance exercise stimulates the development of small proteins in muscle cells, which will in turn enhance your muscles' ability to generate force. Strength training is a type of physical exercise specializing in the use of resistance to induce muscular contraction which builds the strength, anaerobic endurance, and size of skeletal muscles.

When properly performed, strength training can provide significant functional benefits and improvement in overall health and well-being, including increased bone, muscle, tendon and ligament strength and toughness, improved joint function, reduced potential for injury, increased bone density, increased metabolism, improved cardiac function, and elevated HDL (good) cholesterol. Training commonly uses the technique of progressively increasing the force output of the muscle through incremental weight increases and uses a variety of exercises and types of equipment to target specific muscle groups. Strength training is primarily an anaerobic activity, although some proponents have adapted it to provide the benefits of aerobic exercise through circuit training. Sports where strength training is central are body building,

weightlifting, power lifting, strongman, Highland games shot put, discus, and javelin throw. Many other sports use strength training as part of their training regimen, notably football, wrestling, rugby, track and field, rowing, lacrosse, basketball, and hockey. Strength training for other sports and physical activities is becoming increasingly popular.

Methods

The purpose of the study is to find out the effects of SAQ with resistance training on physical and skill performance of tribal football players. Forty tribal men football player were selected randomly Academy teams were Sathyakathi football academy, Lotus Soccer Academy and SreeKrishana Soccer Academy. The selected subjects were divided into two equal groups consisting of 20 each. Experimental Group I (n=20) underwent SAQ with resistance training, Group II (n=20) acted as control group as not given any sort of training.

Experimental design

Physical fitness components agility was assessed by 4810m Shuttle run and unit of measurement was in seconds and the skill performance Dribbling was assessed by Warner's Soccer Test and unit of measurement was in seconds.

Training programme

Training programme is lasted for 60 minutes a day for a session, 3 days in week for a period of 12 weeks. Those 60 min consists f 10 minutes warm-up, 40 min respective training and 10 minutes for warm-down. Each two week's 5 % of load was increased from 50% to 80% of load.

Collection of data

The subjects of the two groups namely SAQ with resistance training Group and control group were tested on selected physical variables (agility), and skill performance variables (dribbling)were tested before the treatment and the score was recorded with their respective units as pre-test scores. On completion of pre-test, they were treated with the respective training programme for a period of twelve weeks. At the end of the twelve weeks, all the subjects belonging to the various treatments the three groups were tested again on selected variables. It was considered as post test score. The collected data were processed with appropriate statistical techniques.

Statistical techniques

Table 1: Computation of 't' ratio on physical and kill performance of SAQ training and control group

Group	Variables	Pre-test mean	Post-test mean	Pre-test std. dev	Post-test std. dev	't' ratio
Experimental group	Agility	13.78	13.37	0.65	0.37	5.42*
	Dribbling	18.76	18.15	0.66	0.40	6.95*
Control group	Agility	13.85	13.66	0.59	0.56	1.94
	Dribbling	18.68	18.52	0.61	0.58	1.14

*Significant at 0.05 level

Table1datashow that the 't' ratios on agility and dribbling ability of SAQ training and control group. Mean value were 13.78, 13.37, 18.76, 18.15, 13.85, 13.66, 18.68 and 18.52 respectively. 'T' ratio were 5.42*, 6.95*, 1.94 and 1.14. Since, these t values of experimental group were higher than there quired table value of 2.09, it was found to be statistically significant and the t value control group were lesser than there quired table value of 2.09, it was found to bestatistically insignificant at 0.05 level of confidence for the degrees off reedom 1 and 19.

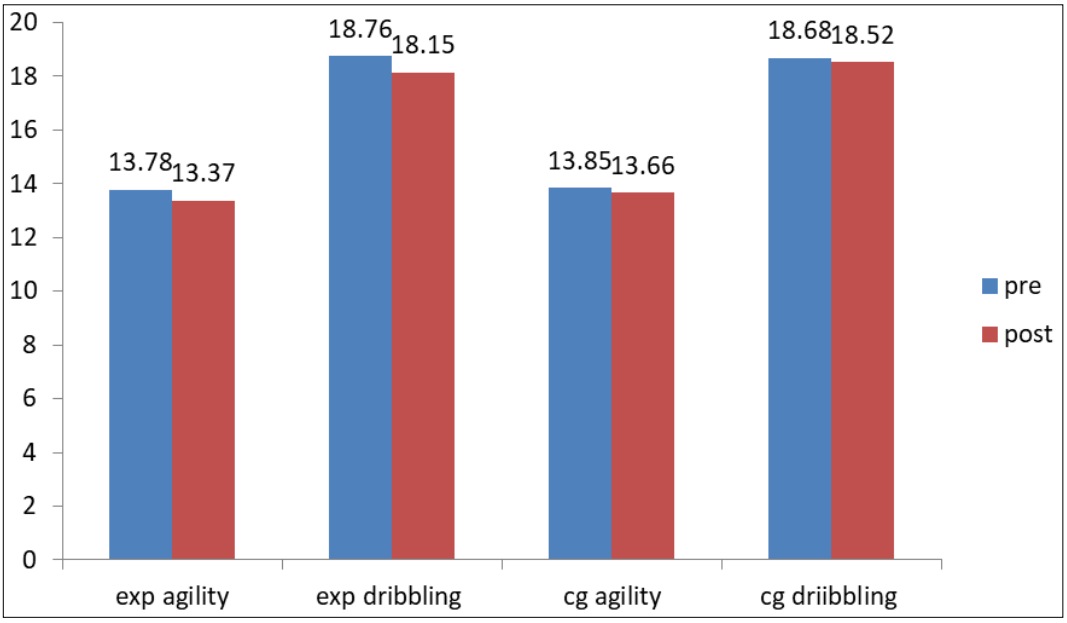

Fig 1: The bar diagram shows the mean value of agility and dribbling ability of experimental and control group

Discussion on findings

The results of this study showed that the subjects participated in SAQ training for the period of twelve weeks were able to improve their performance in physical, and skill variables. After analyzing the results the researcher found that there were significant differences among the experimental and control group and there was a significant improvement over leg explosive power and kicking ability of experimental group.

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 young soccer players. They also confirm Bloomfield *et al*., (2007) [21] viewpoint that the SAQ regimen is an important training method for the improvement of speed and quickness. Furthermore, Weineck, (2000) suggested that agility along with quickness and speed during the first three steps represent the most significant motor ability of a soccer player. Whilst recent studies (Bloomfield *et al*., (2007) [21], Polman *et al*., (2004) [22] have tended to show that SAQ training methods have a positive impact on power, speed and quickness these did not consider agility with and without the ball. This result is in agreement with Polman *et al*., 2004 [22] who found that SAQ training was effective in the physical conditioning of female soccer players 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 and Wiliams (2006). Dermot *et al*., 2016 [15] The purpose of this study was to perform an 8-week intervention program in order to provide a recommendation of the most suitable training program for young soccer players for improving sprint performance, agility and jumping parameters (strength and power). Vahan Moradians *et al*., 2016 evaluate and compare the effectsof eight-week aerobic, resistance, and interval exercise routines on respiratory parameters in non-athlete women. Ozaki *et al*., 2013 undeniable fact that resistance training (RT) is a potent stimulus for muscle hypertrophy and strength gain, but it is less understood whether RT can increase maximal aerobic capacity (VO2max). Sekhon examined the effect of aerobic training, resistance training and concurrent training on Vo2max among college boys. Aghajani *et al*., examines the effects of plyometric and resistance training on the explosive power and the amount of young male volley ball players' strength in Guilanprovince. Sciberras (2017) [17] the aim of the study was to investigate the effects of two strength training methods, weight training (WT) and ballistic training (BT) on speed, agility, vertical jump height and passing skill. Silva *et al*., 2015 [18] suggest that a high level of performance requires well-develop endure muscular function (NF). Taheri *et al*., 2014 [19] investigated the effect of plyometric and resistance training on agility, speed and explosive power in soccer players

Conclusions

1. Based on the findings and within the limitation of the study it is noticed that practice of SAQ with resistance training helped to improved agility of tribal football players.
2. Twelve weeks of SAQ with resistance training program significantly improved dribbling ability of tribal football players.
3. Further it was concluded that SAQ with resistance training will be suitable to bring the desirable changes over physical and skill performance of tribal football players.

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