

IMPACT OF SAQ TRAINING ON SPEED AND AGILITY AMONG INTERNATIONAL SCHOOLS' BADMINTON PLAYERS IN SRI LANKA

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ABSTRACT: The purpose of the study was to find out the impact of SAQ training on speed and agility among international schools' badminton players in Sri Lanka. In order to achieve the purpose of the study 30 male school badminton players were randomly selected from international schools and they were equally divided in to two groups of 15 players as experimental group and 15 players as control group. The experimental group and control group undergone normal routine badminton practices and in addition to the experimental group underwent SAQ practicing for one hour before starting the badminton practice sessions. The control group was not given any special training. The period of training was 15 weeks in a schedule of weekly 3 days for alternate days. The data were collected on the variables of speed and agility before, mid and after completion of the 15 weeks training period. 35 m sprint and T test were used to measure the speed and agility respectively. Collected data were analysed by ANOVA test. Based on the results the study it was concluded that the SAQ training were significantly improved the speed and agility among sports clubs' badminton players.

KEYWORDS: Agility, Experimental group SAQ Training, Speed

INTRODUCTION

In present, respective number of people particularly males and females are interested in sports activities and increasing the number that are representing in the sports. As preventive and curative health habits, it has become more famous throughout the world and, millions of teenagers have chance of involving with sports. Sport is the way which we use our physical capacities to play. Sports is an important in other ways, when one's body works better his mind works better, his brain and his body are interrelated. Sports allows you to blow of tension, to forget your problems for a while and to go out and have a good time no matter what other pressures one may be under in his life. The sport of badminton involved from the ancient game of battledore and shuttlecock, a game played by adults and children for at least 2000 years in ancient Greece, China, Japan and India. The game simply involved two players using bats to hit a shuttlecock back and forth as many times as they could without letting it hit the ground. The players hit the shuttlecock back and forth over the net with the rackets and the rally carries on. However, only the serving side can win a point if at any point during the game the opposition players fail to hit the shot and it falls to the floor or they hit the shuttlecock into the net or over the line markings of the court. However, the serving side fails to play the shuttle cock in a legitimate manner, resulting in a break which gives the opposition the chance to server and there for try to win a point against their opponent in the same manner. The important factors for badminton players are muscle strength, muscular endurance, power, speed, agility, flexibility, balance and coordination. Functional movements are highly dependent on this part of the body, and lack of core muscular development can result in predisposition of injury.

Badminton is one of the games which require lot of movements on the court. The players should have agility to move on the court forward sideward and backward to do many actions with high speed. Systematic training is required to improve the qualities. Broadly speaking badminton training is similar to conditioning for the other racket sports such as tennis and squash. A simple movement analysis however, reveals a few key differences that will affect the competitive badminton players training. Badminton players also rely much more on the wrist flexors for generating power compared to tennis players. As a badminton match lasts at least 45 minutes shorts, intense periods of activity are underpinned by aerobic endurance[2]. Speed and agility play a crucial role, and lateral movements are called upon to even greater extent than in tennis. To improve the physical fitness qualities, they involved is various training programme. Ladder drills are an important part of many team sport workouts. They require athletes to move their feet quickly in a precise and specified motion. Athletes must pay attention to perform the agility ladder drills accurately and quickly. Agility ladder drills benefit an athlete by teaching him to move in a swift yet deliberate fashion[3]. This is important for athletes of every shape and size. Speed ladder and agility ladder exercises help you move quickly in your chosen sport, ahead of the competition. Speed ladder and agility ladder exercises should be your daily homework assignment when you want to be a standout athlete [1]. If you want to get quicker on the court, you need to think about exercises and agility.

Ladder drills, just as with anything, practice does make perfect, so make the time and you'll see the results. SAQ training is a system of progressive exercises and instruction aimed at developing fundamental motor abilities to enhance the capability of athletes to be more skilful at faster speeds and with greater precision[5]. Speed, agility and quickness (SAQ) training has become a popular way to train athletes. Any athlete from school children on a soccer field to professionals can benefit from SAQ training[4]. SAQ training may be used to increase speed/strength, or the ability to exert maximal force during high-speed movements. Some benefits of SAQ training include increases in muscular power in linear, lateral, horizontal, and reaction force and time. Speed, rapidity and instance are all words that have been used in defining quickness[6]. To present study was also with the aim to improve the physical fitness qualities through SAQ training. With analysing various important fitness qualities of the speed and agility were selected as criterion variables[7].

METHODOLOGY

The purpose of study was to investigate the impact of SAQ training on improvement of speed and agility among international schools' badminton players in Sri Lanka. In order to achieve the purpose of the study 30 male school badminton players were selected randomly and they were equally divided in to two groups of 15 players as experimental group and 15 players as control group. The experimental group and control group undergone normal routine badminton practices and in addition the experimental group underwent and SAQ practicing for one hour before starting the session badminton practices. The control group was not given any special training. The period of training was 15 weeks in a schedule of weekly 3 days for alternate days. The data were collected on the variables of speed and agility before, mid and after completion of the 15 weeks training period. 35 m sprint and T test were used to measure the speed and agility respectively.

METHODS

Speed: 35m sprint

Purpose: 35m sprint is a standard test for athletes, includes forward running

Test setup: 35 m marked with two white colour line endings.

Agility: T- Test

Purpose: The T-Test is a test of agility for athletes, and includes forward, lateral, and backwards running.

Test setup: Set out four cones as illustrated in the diagram above (5 yards = 4.57 m, 10 yards = 9.14 m).

3.1 Procedure: The subject starts at cone A. On the command of the timer, the subject sprints to cone B and touches the base of the cone with their right hand. They then turn left and shuffle sideways to cone C, and also touches its base, this time with their left hand. Then shuffling sideways to the right to cone D and touching the base with the right hand. They then shuffle back to cone B touching with the left hand, and run backwards to cone A. The stopwatch is stopped as they pass cone A. **Scoring:** The trial will not be counted if the subject crosses one foot in front of the other while shuffling, fails to touch the base of the cones, or fails to face forward throughout the test. Take the best time of three successful trials to the nearest 0.1 seconds. The table below shows some scores for adult team sport athletes.

RESULTS

Table 1. Variables, Tests and Measuring units

Variables	Test	Measuring units
Speed	35 m sprint test	Seconds
Agility	T test	Seconds

TABLE 1 shows that the Speed and agility were tested by using the 35m spring test and the T test respectively. The results of the 35m spring test and the T test have been recorded in seconds as the measuring units.

Table 2. Pre test

	Control group	Experimental group
Mean value of speed	6.89 s	6.91 s
Mean value of agility	18.4 s	18.2 s

Table 3. Post test

	Control group	Experimental group
Mean value of speed	6.87 s	4.92 s
Mean value of agility	18.1 s	12.5 s

Table 4. Difference of pre and post-test in control group

Variable	Pre test	Post test	Difference
speed	6.89 s	6.87 s	0.02 s
agility	18.4 s	18.1 s	0.03 s

Table 5. Difference of pre and post-test in experimental group

Variable	Pre test	Post test	Difference
speed	6.91 s	4.92 s	1.99 s
agility	18.2 s	12.5 s	5.7 s

DISCUSSION

The purpose of current study was to examine the impact of SAQ training on improvement of agility and speed in badminton players. Researcher hypothesized that agility and speed would improve in badminton players after 15 weeks of SAQ training program. The results of this study showed that there is effect of SAQ training on agility and speed. The p value of agility and speed score is 0.02 that is significant. Agility T test and 35 m sprint were used to access the agility and speed of badminton players.

According to the results of the pre-test mentioned in the TABLE 2, there was no significant difference of performance between control group and experimental group. After under growing fifteen weeks training program, speed and agility were evaluated by using a standard test and results showed no difference in the control group, but a considerable significant difference was identified in the experimental group (TABLE 3).

CONCLUSION

The results of the study and discussion can be concluded as follows. There is a significant on speed and agility between all the groups. According to current study, there is a significance development on speed and agility due to SAQ training. The study can be continued using different age groups. The time duration can be changed and tested with the current study. The same study can be conducted for females also. Players 'daily activities are the most destructive limitation throughout this study.

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