

Effect of Frequency of Backhand Short Service Exercise between Frequency of Exercise Three Times and Four Times a Week to Improving Short Backhand Service Skills

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Abstract: This study aims to determine the difference in the effect of a short backhand service exercise between three and four times a week training on short backhand service skills in badminton games. The sample was 20 young boy badminton players of PB Champion Comal. The method was experimental study. The result showed that the *t* observed value 2,768 is higher than the *t* critical value 2,262 in 5% significance level and *df*=9. It means that the hypothesis claiming that there is significant difference in the backhand short service between three time and four times a week exercise frequency. The mean calculation results show that the mean experimental group is larger than the control group, i.e. 18,1 > 16,7. This means that four times a week short service backhand exercise is better than the frequency of training three times a week on the short backhand service skills in badminton games.

1 INTRODUCTION

To improve the quality of badminton games, from the beginning a player needs to understand and master basic techniques in badminton games. One of the basic techniques that must be mastered by badminton players is service.

Regarding the short backhand service, PBSI (2010) explains that:

This type of service in general, the direction and fall of shuttle cock as close to the attack line as possible opponent player. And the shuttlecock as far as possible hover relatively close above the net (net), therefore, this type of service is often used by double players.

- The correct standing position is that the right foot is in front of the left foot, with the tip of the right foot pointing to the desired target. Both legs are open as wide as the hips, the knees are bent. With this position, the weight is placed between the legs. The posture remains relaxed and full of concentration;
- The racket swing is relatively short, so the shuttlecock is only encouraged with the help of a weight shift from the back to the front foot, with the rhythm of continuous and harmonious motion. Avoid using excessive

wrist power, as it will affect the direction and accuracy of the shots;

- Before serving, note the position and standing stance of the opponent, so that it can direct shuttlecock to the right target and as expected;
- Get used to practice with the number of Shuttle cock a lot and over and over without boredom, to be able to master the movement and skills of this service with a whole and good / perfect.

The results showed that the kinematics pattern was similar between smash and clear strokes, but different from drop shot (Tsai et al., 2000). The wrist joint exerted the greatest velocity and power in all three kinds of strokes than the elbow and shoulder. We found the extensor muscles of wrist were suffering the eccentric contraction before contact. It is the reason why the new learner is always experience the pain of the wrist extensors. It is realized that the regular training on the wrist extensors will reduce likelihood of injury due to stress the wrist extensor through eccentric contraction during acceleration phase.

Badminton requires a combination of strength, speed and stamina (Mills, 1977). Training of aerobic and anaerobic mechanisms is advised. At a high

level of performance intensive specific conditioning is recommended. For younger players Begg (1973) concluded that there is little value in embarking on intensive training before the adolescent growth spurt. Beggs' report of the death on the badminton court of a 19-year-old girl found to have mitral stenosis underlines the importance of medical screening. This would particularly apply in sedentary adults taking up badminton for recreation. Apart from medical "screening" appropriate medical attention to injury is important. Who to go to is not always obvious to the injured player.

This study described the different biomechanical characteristics between the smash, clear and the drop shot of the elite badminton player (Chatzopoulos et al., 2006). The results showed that the kinematics pattern was similar between smash and clear strokes, but different from drop shot. The wrist joint exerted the greatest velocity and power in all three kinds of strokes than the elbow and shoulder. We found the extensor muscles of wrist were suffering the eccentric contraction before contact. It is the reason why the new learner is always experience the pain of the wrist extensors. It is realized that the regular training on the wrist extensors will reduce likelihood of injury due to stress the wrist extensor through eccentric contraction during acceleration phase.

To be able to master the skills of short service backhand movement it is needed the process of training. To get a good workout results then the right training method is needed.

2 METHODS

The method was experimental study. The experimental method is a research method used to find the effect of certain treatment on another in controlled condition. The instrument used in this research is by using the test. The test used in this research is a placement short service skill test in the game Badminton which has the validity of 0.68 and reliability 0.84. The population in this study is the male badminton player. Of PB Champion Comal Kabupaten Pemalang consisting of 20 players. They are between 13-15 years old. The sampling technique in this study used total sampling technique that is all the individuals in the population were sampled. The sample was all the players of PB Champion Comal Kabupaten Pemalang consisting of 20 players.

On the day following the completion of practice the subjects were given a retention and transfer test (Goode and Magill, 1986). Results replicated

previous findings of contextual interference research by showing a significant group by block interaction between acquisition trials, retention, and transfer. The random group performed better on both retention and transfer than the blocked group. The significant trial block by contextual interference interaction also supports the generalizability of contextual interference effects, as posited by Shea and Morgan (1979), to the teaching of motor skills.

3 RESULTS

The calculation results are entered into the t-test formula to obtain the value of t, the result of the calculation can be seen in appendix 12. The observed value was 2,768 in 5% significance level and $df=9$ and the critical value was 2,262. This means that t observed is greater than the value of t critical value.

It means that the alternative hypothesis claiming that: There is a significant difference in the effect of a short backhand service exercise between three and four times a week training on short backhand service skills in badminton games. In PB Champion Carnal Kabupaten Pemalang" was accepted.

4 DISCUSSION

From the means difference analysis, the means of experimental group 18,1 is better than that of the control group 16,7. This means that four times a week short service backhand exercise is better than the frequency of training three times a week on the short backhand service skills in badminton games for PB Champion Kabupaten Pemalang players. The result of the analysis, it was found out that four time a week exercise is better than the tree time a week exercise for PB Champion Kabupaten Pemalang players. Skill exercises including a short serve backhand exercise with a frequency of four times a week will be better than three times a week. The intensity for four time a week exercise is relatively high. Because skills training requires technical oversight and remediation of the techniques themselves, Skills training requires considerable time and practice, in contrast to physical exercise (Côté, et al., 2007; Strecher et al., 1986). Frequent training will lead to better motor enhancement that will facilitate the autonomous movements. Thus, doing backhand short service shot will find no significant problem. Skill training with three time a

week exercise result in less effective result. Exercise three times a week to provide skill training is rare, because skill training requires a high frequency of exercise. Kraemer and Ratamess (2004) said that A relatively high exercise frequency in skill training will lead to improved motor training. Nevertheless, three times a week exercise is very good for physical exercise. Three times a week for physical exercise has a very good recovery cycle, so the day of practice to the next exercise day the energy has recovered. Thus, it can avoid fatigue and injury.

5 CONCLUSIONS

Based on the statistical computation the t observed of 2,768 is higher than the t critical 2,262 in $df=9$ and 5% significance level. It can be concluded that there is a significant difference in the effect of a short backhand service exercise between three and four times a week training on short backhand service skills in badminton games of PB Champion Kabupaten Pemalang players.

From further analysis, it was discovered that the means of experimental group 18,1 outscore the control group 16,7. It means that: Four times a week short service backhand exercise is better than the frequency of training three times a week on the short backhand service skills in badminton games for PB Champion Kabupaten Pemalang players.

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