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THE EFFECTIVENESS OF THROWING AND RACKET DEFENSE TRAINING MODELS ON THE DEFENSE ABILITY OF MEN'S SEPAKTAKRAW ATHLETES

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Abstract This research aims to determine the increase in defensive ability with a throwing training model and to determine the increase in defensive ability with a training model using a racket. Used an experimental method with a population of 6 male PPLP sepaktakraw DKI Jakarta athletes. In sampling, a saturated sample technique or (total sampling) is used, that is, all members of the population are used as samples. The results of data analysis are as follows: the defensive training group with throws obtained an average value of 3.67. The standard deviation value of the difference is 0.94, the standard error value of the mean of difference is 0.67 and the calculated t value is 5.50. The defensive training group with a racket got an average score of 8.33. The standard deviation value of divergence is 1.25. The standard error value of the mean of difference is 0.88 and tcount is 9.45, ttable 2.78. These two groups got a standard deviation value from defensive training with a throw of 2.05 and defensive training with a racket of 0.47. The standard error value of the mean difference is 1.22, tcount 3.29, ttable 2.78 with a significance level of $\alpha = 5\%$ so that the tcount is greater than the ttable. From the results of the research conducted, it can be concluded using statistical calculations that there is a significant increase in ability after being given throwing defense training and defensive training using a racket.

Keywords: sepaktakraw; defense training model; athlete



INTRODUCTION

Sepak takraw is a sport originating from Southeast Asia, it is a mixed sport of football and volleyball played on a double badminton court and players are not allowed to touch the ball with their hands (Hasim et al. 2024). The game sepak takraw is a game played on a rectangular field, both open and closed, and free from all obstacles except the net as an obstacle (Abdul Gaffar, Maulidin, dan Intan Kusuma Wardani 2021).

The sport sepak takraw is a competitive sport played by 3 players on a field measuring 13.40 m long x 6.10 m wide and a net height of 145-155 cm (Kahar et al. 2022). As the sport of sepak takraw develops, nowadays it is not only contested three against three but is divided into four contested numbers, namely two against two, three against three, four against four and also hoop Takraw (Rijalul Fikri 2022).

In the sepaktakraw game, each athlete has their own task, the tekong who stands in the middle between the right and left flanks is tasked with kicking or serving to the opponent's area, this is the first attack carried out by a team (Armelia, 2008). Meanwhile, the left flank stands on the left, as does the right flank. The right flank's job is

usually as a feeder and the left flank as a spiker. However, it does not rule out the possibility of the coach making a strategy of using the right flank as a spiker and the left flank as a feeder.

Mastery of technique is one of the aspects that determines the improvement of sepak takraw performance (Yudanto et al. 2022). To start the sepaktakraw game, the first time the ball is served or crossed over the net to the opponent's court, then through a pass from foot to foot or using the thigh and head of the ball, then crossed again towards the opponent who serves using the smash technique until one of the teams cannot return the ball. The serve in the sepak takraw game can be the key to victory if the serve cannot be reached by the opponent so that it can result in a score (Yudanto and Fatimah 2022).

When the opponent serves, the main task of all players is to receive the ball first or defend. Receiving the first ball, or service ball from an opponent, is a very important exercise for every player, considering that this technique is not only important in the game but is one of the most difficult techniques to master (Hanafi, 2020).

Defending is also the first step before a player makes a pass and can

then counterattack via Smesh (Pratama et al., 2022). This sepak takraw game really requires a strong defense so that it is difficult for the opponent to score points (Tanzila et al., 2023).

Defending is the application of the basic techniques possessed by athletes. These basic techniques must be continuously practiced, starting from sila kicks, thighs, heads, badek gouges and others (Afrina and Nur 2023). The practice of receiving the first ball or defending is a very important exercise, this technique is not only important in the game but is a technique that is very difficult to master considering that the opponent's serve is getting harder and can vary. So it takes a long time to perfect it, so an athlete must gradually train this defensive technique (Muin, 2023).

The sport of sepak takraw is a branch of achievement sports that can be fostered from an early age both in school institutions and in the community (Rengge, Natal, and Wani 2022). The school age period or during PPLP is the main key for coaches in forming athletes' basic techniques and advanced techniques. Coaches must be careful in providing technical material to their athletes, because if during PPLP the

athlete makes the wrong movements and does them repeatedly, it will mistakes continue to occur, but if at that time the athlete is given the correct technique it will make it automatic for the athlete. Achievement of peak performance will be achieved if it is placed on a solid foundation, starting training that is placed on a strong foundation and carried out as early as possible so that it can run well in accordance with the planned program (Dewi et al., 2023).

If players do not have the ability to receive the first ball or defend, the opposing team will win the match more quickly and the match will be fast and boring. It is because there is no fierce resistance from the opponent, and a game like this will not be fun for the players or the spectators present (Rifqi & Sudarso, 2020).

Mistakes that often occur when defending are when athletes are careless when receiving the ball near the net and are not ready when receiving a very hard serve from their opponent. When an athlete fails to defend or the ball is too wild to be controlled automatically the feeder cannot make a good pass so it cannot be smashed by the spiker and become a point for the opponent. The role of defensive techniques in the game

of sepak takraw is very important, because receiving a defensive service is a form of technique in an effort to defend the area from an opponent's service attack, and is also one of the starting points for a counter attack (Lestari, 2020).

The defense training model in the sepaktakraw game is very varied, players can do it against a wall, in pairs with friends or with tools, namely by using wooden rackets or tennis rackets. With various training models, coaches can maximize athletes' ability to defend during a match, therefore all athletes must have good defensive abilities, because if one athlete is not good at defending, it will become a weak point and become the main target for opponents to gain point. By mastering the correct basic techniques and good defensive skills, an athlete can make it easier for a passer to organize strategies and make variations of passes so that Smesh is not easily blocked by opponents.

METHOD

This research aims to:

1. Find out how to improve defensive abilities with throwing training models.
2. Find out how to increase your defensive ability with a training model using a racket.
3. To determine the effectiveness of training models using throws and rackets on the defensive ability of PPLP sepaktakarw DKI Jakarta male athletes.

The method used in this research is the experimental method". Research with an experimental approach is research that attempts to find the influence of certain variables on other variables under strictly controlled conditions. The method that will be used is the experimental method, namely a research design using a Pre-Test and Post-Test Two Group, namely to determine the effect independent variable to the dependent variable.

The experimental method is part of the quantitative method, and has its own characteristics, especially the presence of a control group. The independent variable is the defensive training model for throwing and using a racket, while the dependent variable is increasing the defensive ability of PPLP Sepatkaraw DKI Jakarta male athletes. The sample is a portion of the subjects investigated from all research individuals.

The samples taken were male athletes from PPLP Sepaktakraw DKI Jakarta. Sampling in this research was carried out using Saturated Samples, namely determining the sample if all members of the population are used as samples. Then all samples are given an initial test, then sorted based on the results. From these results, they were divided into 2 groups.

Group A: Those with an even rank received treatment with a defensive training model using throwing. Group B: Ranked odd received treatment with a defensive training model with a racket. This research uses the T Test data analysis technique. The instrument in this research used a modified sepaktakraw skills test from Achmad Sofyan Hanif.

As for this instrument, it is still used in general, so the researcher wants to make this instrument more specific, according to the characteristics of the sepaktakraw game, with the following conditions.:

1. Players are called to enter the sepaktakraw field and take their places according to their respective specialist positions.
2. Once the sample is ready, the test is ready to start.

3. The defense test is carried out 15 times by the tekong across the field.
4. If the first ball rises perfectly and is still within the player's reach to pass then the score is 3.
5. If the first ball rises irregularly but is still in the field and can be passed the score is 2.
6. If the first ball rises irregularly but is outside the field and can be passed, the value is 1.
7. If the first ball cannot be held or dies then the value is 0.

RESULT AND DISCUSSION

1. The results of the initial test and the final test of defensive training with throwing.

The results of the analysis of the initial test and the final test of defensive training with throwing obtained a mean deviation value (MD) = 3.67, a standard deviation value of the difference (SD) = 0.94, a standard error value of the mean of the mean difference (SEMD) = 0.67, $t_{count} = 5.50$ and t_{table} at degrees of freedom (dk) = $N-1 = 2$ with a significance level of 5%, the t_{table} value = 4.30.

Thus $t_{count} > t_{table}$ = then H_0 is rejected, this means that there is an

increase in defense training with throws on the defensive ability of PPLP Sepaktakraw DKI Jakarta male athletes.

2. Results of the initial test and final test of defensive practice with the racket.

The results of the analysis of the initial test and the final test of defensive practice with the racket obtained a mean deviation (MD) value = 8.33, a standard deviation value of the difference (SD) = 1.25, a standard error value of the mean of the mean of difference (SEMD) = 0.88, $t_{count} = 9.45$ and t_{table} at degrees of freedom (dk) = $N-1 = 2$ with a significance level of 5%, the t_{table} value = 4.30.

Thus $t_{count} > t_{table}$ = then H_0 is rejected, this means that there is an increase in defensive training with rackets on the defensive ability of PPLP Sepaktakraw DKI Jakarta male athletes.

3. Final test results of throwing and racket defensive training.

Testing the hypothesis for the two groups using the t-test between the final test results of the defensive training group using throws and with rackets. From the throwing defense training group, an average (M_x) of 24.33 was obtained with a standard deviation

(SDX) of 2.05 and a standard error (SDmx) of 1.19. For the defensive training group with a racket, the average (M_y) was 28.33 with a standard deviation (SDY) of 0.47 and a standard error (SDMY) of 0.27.

From the two groups of data, the standard error of the mean difference (SEMXY) was 1.22. From the results of these calculations, the results of the final test of throwing defense training and with a racket obtained a t_{count} value of 3.29, then tested with a t_{table} at a significance level of 5% and degrees of freedom $(N_1+N_2)-2 = 4$ obtained a t_{table} of 2.78 which This means that the value of $t_{count} > t_{table}$, thus the t test concludes that the results of defensive training with a racket are different (significant), so the null hypothesis (H_0) is rejected and the research hypothesis (H_a) is accepted.

Based on the results of the initial and final tests of the two exercises, defensive training with throws and defensive training with rackets both improved, but defensive training with rackets was better than defensive training with throws on the defensive ability of male athletes at PPLP Sepaktakraw DKI Jakarta.

CONCLUSION

From the results of the research carried out, it can be concluded that there has been an increase in the training carried out in the form of increased defensive abilities in PPLP Sepaktakraw DKI Jakarta male athletes starting from the initial test to the final test. The data obtained was tested with statistical calculations, that:

1. There was a significant increase in ability after being given defensive training with throwing to PPLP Sepaktakraw DKI Jakarta male athletes.
2. There was a significant increase in ability after being given defensive training with a racket to PPLP Sepaktakraw DKI Jakarta male athletes.
3. The defensive training model with a racket is more effective in improving defensive abilities compared to defensive training with throws for PPLP Sepaktakraw DKI Jakarta male athletes.

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