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Effect Of Ladder Drill And Saq Training (Speed, Agility, And Quikness) On Speed Running For Unimed Female Athletes Hockey Club

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ABSTRACT

The aim of this research was to determine the effect of Ladder Drill and SAQ (Speed, Agility and Quikness) training on running speed in UNIMED Hockey Club athletes. The problem with this research is that there are still many athletes who are slow in their game. After observing that when athletes play games, many athletes are still slow to chase the ball, when carrying the ball and still slow to run when chasing opponents. The research method used is the experimental method and data collection techniques as well as using tests and measurements. The research design used was Pretest - Posttest Control Group Design. The number of samples in this study was 18 athletes. This research was carried out at the Unimed Multipurpose field. After carrying out the pre-test, the researcher then gave Ladder Drill and SAQ (Speed, Agility and Quikness) training in 18 meetings. This research instrument uses a 30 m running speed test. The data analysis technique used in this research uses the t-test. From the results of statistical tests using the t-test at a significant level (α=0.05), the pre-test and post-test values for the 30 meter running speed from the calculated results show that the value of tcount = 292.105 > ttable = 1.7530, so Ha is accepted and Ho is rejected. The conclusion from the results of this study is that there is a significant effect of Ladder Drill and SAQ (Speed, Agility and Quikness) training on running speed in female athletes from the UNIMED Hockey Club.

Keywords: *Ladder Drill, SAQ (Speed, Agility and Quikness), Running speed*

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INTRODUCTION

Hockey is generally played in a more dynamic and fast way. Predicting player movements, both with the ball and without the ball, becomes difficult and complicated. Hockey is a competitive and dynamic sport that requires players, to use game strategies to move players and move from one place to another.

(Primadi Tabrani (2002) in Dwika Yuli, dkk (2014)said that hockey is a very interesting sport and requires a lot of skill and physical ability to play, so it requires a combination of knowledge and direct physical effort, one of which is speed. Speed is important for hockey players

because it allows players to overcome opponents' obstacles or hinder their opponents' movements when carrying the ball. Speed is the ability to move the body in one direction as quickly as possible. The definition of Velocity by (Harsono (2001) in Nilhakim (2022) the ability to perform similar movements in succession in the shortest possible time or the ability to cover a distance in a short time. (Ompa & Haff, in Irawadi (2011: 62) that speed is the ability to complete a certain distance quickly. Speed is related to time, frequency of movement, and distance moved. (Sajoto in Johan Cahyo B, dkk (2012) states that speed is a person's ability to carry out continuous movements in the same form in the shortest possible time. Based on the concept of speed and its application in sports, the speed element is a key factor in achieving optimal results. Speed is in the form of partial reaction speed, while speed is the speed of movement of all body parts in covering a certain distance, such as running.

Apart from having a good physique to achieve achievements in the sport of hockey. Training also plays a very important role in becoming a necessity in achieving achievement. Because exercise is the systematic application of functional stimulation with the aim of increasing performance. As stated by (Sukadiyanto (2010) in Dodik Triyanto (2023) therefore, to achieve a goal a structured training program is needed so that the body can adapt. (Irianto (2002) also explained that training is a process that is carried out regularly, planned, using certain patterns and systems, methodically and repeatedly, so that movements that were previously difficult to do become easier, automatic and reflective so that the movements become efficient and must be done many times. (Hariono (2006) He stated that training is a process of systematic repetition with increasing load.

From the results of observations, problems were found related to the implementation of running speed training where there were still many athletes who were slow in their game. After being observed when athletes were playing games, many athletes were still slow in chasing the ball, when carrying the ball and still running slowly when chasing opponents, which was done by the UNIMED Hockey Club women's team on the multi-purpose field at Medan State University.

These findings were confirmed by the coach's statement which stated that it was true that there was no focus on speed training so we really needed some form of speed training. From the results of these findings, initial data tests were carried out regarding the running speed of the UNIMED Hockey Club women's team. The initial test results showed that the running speed of the UNIMED Hockey Club female athletes was still in the very poor category so it needed to be

improved by providing forms of speed training that could improve running speed, such as ladder drills and SAQ (speed, agility and quickness).

If Ladder Drill training and SAQ (Speed, Agility, and Quikness) training is a training program designed to improve overall agility, speed and quickness of the legs, then it is related to gaining running speed ability. Better movement skills training must be done with various forms of exercise.

With regard to the conclusions above, the researchers plan to increase the running speed of UNIMED Hockey Club female athletes by offering several variations of speed training from Ladder Drill and SAQ (Speed, Agility, and Quikness).

METHOD

This research uses an experimental method, with a "Pretest - Posttest Control Group Design" research design, namely research that contains an initial test (pretest) before being given treatment and a final test (posttest) after being given treatment. In this way, the results of the treatment can be known more accurately, because it can be compared with the situation before the treatment was given (Sugiyono, 2008). The aim of this research was to determine the effect of Ladder Drill and SAQ (Speed, Agility and Quikness) training on running speed in UNIMED Hockey Club athletes. This research was carried out at the UNIMED multipurpose field, which is located at Jalan Williem Iskandar, Pasar V Medan Estate, Percut Sei Tuan District, Kab. Deli Serdang, North Sumatra. According to (Gurning, dkk (2018) Population consists of all the qualities that make up the subject of research, where these characteristics apply to each collection of individuals, events, or things that are the focus of investigation. The population in this study were all 30 female athletes at the UNIMED Hockey Club. The sample is a portion or representative of the population studied according to (Arikunto.S. (2017) *Purposive sampling is the sampling technique used in this research*. (According to Sibona & Walczak (2012) in Mulya (2020) states that purposive sampling is a technique in which the researcher determines the specific characteristics of the sample itself. So the sample for this research was 18 people. In this study, the test used was a 30 meter running speed test. (Subagyo Irianto,1995) which has validity and reliability. The reliability of this instrument is 0.879 and the validity is 0.812. The tool used for measurement is a meter.

RESULTS AND DISCUSSION

Result

The results of the speed data (30 meter sprint) of the UNIMED Hockey Club female athletes in this study were measured using tests. The speed data results (30 meter sprint) of UNIMED Hockey Club female athletes can be seen in the table below:

Table 1. Pre test speed data statistics (30 meter sprint) for female athletes from the Unimed Hockey Club

No	Description Data	30 Meter Running	
		Pre-test	Post-test
1.	Sample	18	18
2.	Fastest value	4,89	4,55
3.	Oldest value	6,36	5,51
4.	Average value	5,5	4,5
5.	Standard Deviation	0,4	0,3
6.	Average Difference	0,548	
7.	Standard Deviation is Different	0,16	

From the pre-test results of the 30 meter run, the fastest score was obtained from the 30 meter run test, namely 4.89 and the longest score was 6.36. The mean value is 5.5 and the standard deviation is 0.4. From the post-test results, the fastest score for the 30 meter run was 4.55 and the longest score was 5.51. For an average value of 4.5 and a standard deviation of 0.3. From the average of the pre-test and post-test, the average value is 0.54 different with a standard deviation of 0.16 and tcount.

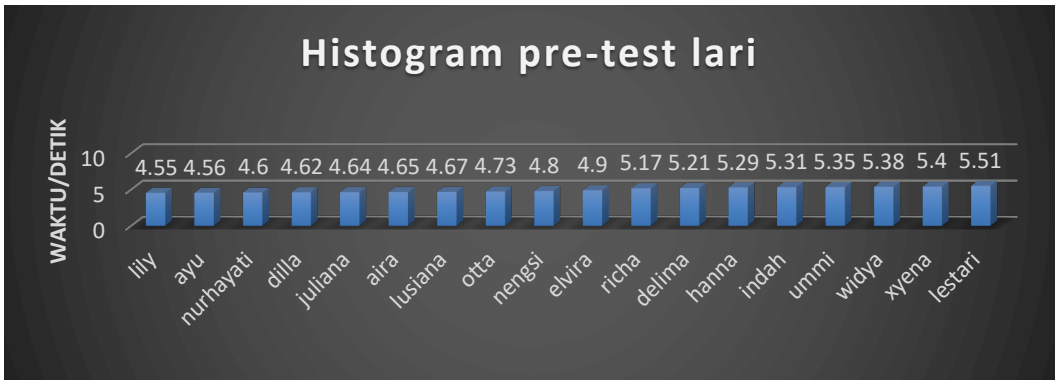

Figure 1. Histogram of Pre-test Values for 30 Meter Running

Data from the pre-test results are processed using a histogram diagram, producing the following results: athlete's name, pre-test results and time/seconds of test implementation.

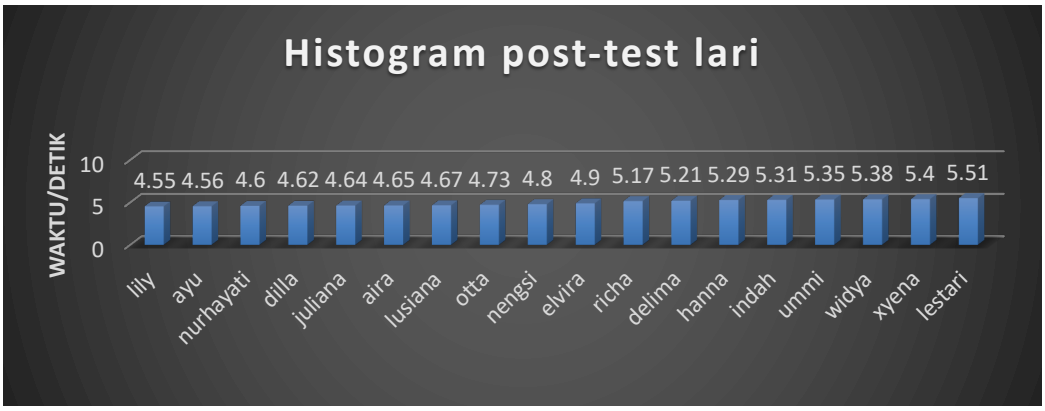

Figure 2. Histogram of 30 Meter Running Post-test Values

Data from post-test results are processed using a histogram diagram, producing the following results: athlete's name, pre-test results and time/seconds of test implementation.

Table 2. Hypothesis testing

Data Description	Unimed hockey club female athlete's running speed		Df	Information
	Pre test	*Post test*	15	Significant
t count	183,33			
t table	1,753			

From the results of calculating the pre-test and post-test running speed of UNIMED Hockey Club female athletes using the t test, it is known that the value of t = 183.33 and this value is compared with the value of t table = 1.753 with a significant level (α = 0.05), thus it is obtained the result of tcount (183.33) > ttable (1.753) which means Ho is rejected and Ha is accepted. So it can be concluded that there is a significant influence between Ladder Drill training and SAQ (Speed, Agility and Quikness) on the running speed of UNIMED Hockey Club female athletes.

Discussion

From the results of pre-test and post-test hypothesis testing, it can be explained that Ladder Drill and SAQ (Speed, Agility and Quikness) training had a significant influence on increasing the running speed of UNIMED Hockey Club female athletes. This shows that Ladder Drill and SAQ (Speed, Agility and Quikness) training really has an influence on increasing running speed. Ladder Drill and SAQ (Speed, Agility and Quikness) exercises are forms of exercise that involve several body organs, especially the leg muscles. Ladder Drill and SAQ (Speed, Agility and Quikness) training can increase running speed. Speed is a person's ability to carry out continuous movements in the same form in the shortest possible time (Sajoto (1995) in Khairul Iqbal, dkk (2015). Ladder Drill is a form of physical training tool that resembles steps placed on a flat plane or floor (Tony Reynolds (2010).

Ladder drill is a modification of several forms of training to help improve speed and skills by practicing the speed and accuracy of running in the form of stairs. The goal is to increase running speed. Likewise, SAQ (Speed, Agility and Quikness) training is a modified form of training variation to increase speed and by using the athlete's running speed. The goal is to improve speed, skills in changing direction and reaction time quickly. Using Ladder Drill and SAQ (Speed, Agility and Quikness) exercises are several variations of running speed training that can increase the running speed of UNIMED Hockey Club female athletes.

There are several things that can influence the improvement of hockey athletes' performance, apart from implementing the training program that has been implemented in training, there are several other variables including the athlete's talent, the athlete's interest in training, the athlete's activities outside of training, the food intake consumed by the athlete and the athlete's motivation. The 18 meeting sessions showed the effectiveness of the meetings in conveying information related to running speed training, providing special experiences for athletes which had a good impact, especially on their running speed abilities. There are several studies that state the same thing, namely research conducted by (Jendry Alvin Tefu (2019) in his journal said that ladder drill training had a good effect on improving running speed and agility. Other things have also been stated by (Koncoro Darumoyo (2021) which states that SAQ (Speed, Agility and Quikness) training has a very good effect on increasing running speed in playing soccer.

Menurut Emral (1996:181-191) To obtain results that can increase an athlete's running speed, training program planning must be based on the principles of speed training, namely:

1) Maximum intensity

2) Short distance
3) Short travel time
4) Recovery time and complete interval
5) Activities are always explosive

Speed is a component of the physical conditions required to carry out movements in succession or move the body from a certain position to another at a certain distance in the shortest possible time.

CONCLUSION

Based on the results of discussions and research in the field, the conclusion was obtained that there was a significant influence from Ladder Drill and SAQ (Speed, Agility and Quikness) training on the running speed of female athletes from the UNIMED Hockey Club.

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