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Analisis Komponen Fisik Terhadap Kemampuan Passing Stopping Pada Permainan Sepakbola Club Boya FC Makassar

Analysis Of Physical Components On Passing Stopping Capability In Club Boya FC Makassar Football Games

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Abstract. This research aims to prove: 1) The relationship between leg muscle strength and passing stopping ability, 2) The relationship between balance and passing stopping ability, 3) The relationship between leg length and passing stopping ability 4) The relationship between leg muscle strength, balance, leg length and passing stopping ability. The research method used is a quantitative research method and the type of research is correlational research involving 3 independent variables, namely leg muscle strength, balance and leg length, while the dependent variable is passing stopping ability. The population in this study was the Boya FC Makassar club, with a sample of 30 people taken using simple random sampling. The data analysis technique used is the correlation coefficient. The results of the research conducted show that: 1) There is a significant relationship between leg muscle strength and passing stopping ability with a value of r = 0.795 ($p<\alpha 0.05$). 2) There is a significant relationship between balance and passing stopping ability with a value of r = 0.841 ($p<\alpha 0.05$). 3) There is a significant relationship between leg length and passing stopping ability with a value of r = 0.633 ($p<\alpha 0.05$). 4) There is a significant relationship between leg muscle strength, balance, leg length together with passing stopping ability of 84.60% with a value of R = 0.846 ($p<\alpha 0.05$).

Keywords: Leg Muscle Strength, Balance, Leg Length And Passing Stopping Ability.

1 Introduction

Sport is part of human life. Exercising can improve a person's physical fitness or physical condition so that they can carry out daily activities without experiencing fatigue. Through sport, it can form a human character that is disciplined, has high sportsmanship and generally makes a quality human being (Dinata, 2007).

Football is a sport that is familiar to Indonesian people, especially in South Sulawesi. This sport is known from the upper classes to the lower classes and does not recognize the strata in society. So that this sport can bring unity and brotherhood between individuals (uxbacher, 2016).

In an effort to improve sporting achievements, especially football, every individual has chosen sports as their professional field. Must try as hard as possible to solve problems that are obstacles to the realization of development and improvement of sports performance. Increasing sports performance by applying science and technology in a form of business obtained based on scientific methods, namely through research procedures. The results of research in the field of sports can be used to improve sports performance through research, new things can be put forward or testing the truth of an opinion, so that it can be used in coaching efforts towards achievement, including improving the sport of football (Septi, 2019).

When playing soccer, as a player, of course you have to master several basic techniques in playing soccer, such as dribbling, passing, shooting, heading and several other techniques. Passing Stopping technique of passing or moving the ball from one player to another in a football match (Girsang, 2021). The Passing Stopping technique really needs to be mastered by the football player so that the desired game pattern really needs to be mastered by the football player so that the desired game pattern can be successful, whether in attack or defense or setting tactics for counterattacking the opponent's goal (Supriady, 2019).

A player in good physical condition will have several advantages that will enable players to: increase strength, balance, etc. in the components of physical condition, fast recovery in the body's organs after exercise, a rapid response or response from the organisms in our body. These components of physical condition certainly have different roles in supporting a footballer's ability to kick the ball (Siagian, 2021). Among the physical components that will be examined in this research are leg muscle strength, balance and leg length. Muscle strength is a very important component to improve overall physical condition because the legs are the greatest strength in soccer players, while balance is the ability to maintain the center of gravity in the fulcrum, especially when in an upright position. Leg length is one of the body structures that can support the game Football (Widiastuti, 2019)

Based on the author's observations, it appears that players are still not optimal in carrying out football Passing Stopping techniques. The low ability of Passing Stopping the ball may be due to the player's lack of mastery of the Passing Stopping technique, because the ability to perform Passing Stopping needs to be supported by leg muscle strength, balance and good leg length (Febribarus, 2022).

2 Method

To influence these variables so that there is no variable manipulation. This study aims to determine the contribution of leg muscle strength, balance and leg length to passing stopping ability in the game of soccer.

1. Research Place

This research was carried out at the Hasanuddin Makassar football field

2. Research Variables

The research variables used in this research include:

a.Free variable

1) leg muscle strength

2) balance

3) leg length

b. Dependent variable:

1) passing stopping

Population is a generalized area consisting of objects or subjects that have certain quantities and characteristics determined by the researcher to be studied and then conclusions drawn. Population is not only people, but also objects and other natural objects. The population in this study is all Club Boa FC Makassar players.

The sample is part of the number of characteristics possessed by the population. If the population is large and it is impossible for researchers to study everything in the population (Sugiono, 2018:118). A sample is a part of a population taken using certain techniques that are needed to determine the number of samples using random sampling techniques or at random. The number of samples in this research was 30 Boya FC Makassar players

Data Analysis Techniques

After all the research data has been collected, the next step is analyzing the data. This allows researchers to draw conclusions about the data through analysis. Computer-assisted statistics using the SPSS version 21 program to find out whether there is a relationship between the independent variable and the dependent variable. Results of passing stopping and three independent variables: leg muscle strength, balance and leg length.

3 Result

Based on the results of research conducted on Boya FC Makassar football players. The results of statistical analysis relating to the score of leg muscle strength, balance and leg length on passing stopping ability in the game of football are presented in the following table:

Table 1. Summary of results of descriptive analysis of data

Statistik	leg muscle strength (X1)	balance (X2)	leg length (X3)	passing stopping (Y)
N	30	30	30	30
Mean	30.77	13.8763	98.53	14.47
Median	30.00	14.1550	99.00	15.00
Std. Deviation	4.994	1.14177	4.032	1.479
Variance	24.944	1.304	16.257	2.189
Range	19	5.03	17	6
Minimum	21	11.23	86	11
Maximum	40	16.26	103	17

Sum	923	416.29	2956	434

Data Normality Test

1. In testing the normality of leg muscle strength data, the values obtained were KS-Z = 0.575 and P = 0.896 which was greater than α = 0.05. Thus, the leg muscle strength data obtained is normally distributed.

2. In testing the normality of balance data, the values obtained for KS-Z = 0.630 and P = 0.823 are greater than α = 0.05. Thus the balance data obtained is normally distributed.

3. In testing the normality of leg length data, the values obtained were KS-Z = 0.807 and P = 0.532 which was greater than α = 0.05. Thus the hand eye coordination data obtained is normally distributed.

4. In testing the normality of passing stopping ability data, the values obtained were KS-Z = 1.136 and P = 0.151 which was greater than α = 0.05. Thus the passing stopping ability data obtained is normally distributed.

Correlation Analysis

After carrying out data normality tests on the hypothesis to be tested, the hypothesis is tested to prove its correctness.

Table 2. The first hypothesis, leg muscle strength on passing stopping ability

Correlation	N	r	P_{value}	Description
X_1. Y	30	0,795	0,000	Significant

Based on the results of the correlation analysis of data on balance leg muscle strength and leg length on passing stopping ability, a correlation value was obtained (r) = 0.795, with a probability level (P) = 0.000 which is smaller than α = 0.05. so HO is rejected and H1 is accepted (significant correlation coefficient), or leg muscle strength has a significant relationship to passing stopping ability. Thus it can be concluded that there is a relationship between leg muscle strength and passing stopping ability

Table 3. The second hypothesis, balance against passing stopping abilty

Correlation	N	r	P_{value}	Description
X_2. Y	30	0,841	0,000	Significant

Based on the results of the correlation analysis of balance data (X2) on passing stopping ability, a correlation value (r) = 0.841 was obtained, with a probability level (P) = 0.000 smaller than α = 0.05. So HO is rejected and H1 is accepted (significant correlation coefficient), or balance has a significant relationship to passing stopping ability. Thus it can be concluded that there is a significant relationship between balance and passing stopping ability

Table 4. The third hypothesis is the relationship between leg length and passing stopping ability

Correlation	N	r	P_{value}	Description
X_3. Y	30	0,633	0,000	Significant

Based on the results of the correlation analysis of leg length data (X3) on passing stopping ability, a correlation value (r) = 0.633 was obtained, with a probability level (P) = 0.000 smaller than α = 0.05. So HO is rejected and H1 is accepted (significant correlation coefficient), or leg length has a significant relationship to passing stopping ability. Thus it can be concluded that there is a significant relationship between hand eye coordination and passing stopping ability

Table 5. The fourth hypothesis is, the relationship between leg muscle strength, balance and leg length on passing stopping ability

Correlation	N	R	R^2	P_{value}	Description
X_1.X_2. X_3. Y	30	0,846	0,717	0,000	Significant

Based on the results of the correlation analysis of data on leg muscle strength, balance, and leg length on the passing stopping ability of Kartika XX-1 Makassar High School students, a correlation value (r) = 0.846 can be obtained, with a probability level (P) = 0.000 which is smaller than α = 0 .05. So HO is rejected and H1 is accepted (significant correlation coefficient), or the relationship between leg muscle strength, balance and leg length has a very significant effect on passing stopping ability. Thus it can be concluded that there is a significant relationship between leg muscle strength, balance and leg length on passing and stopping ability in the Boya FC Makassar football club.

4 Discussion

1. Relationship between Leg Muscle Strength and Passing Stopping Ability

From the results of hypothesis testing, it shows that there is a significant relationship between leg muscle strength (X1) and passing stopping ability (Y). Based on the calculation results, the correlation coefficient (r) = 0.795.

According to Widiastuti (2017:75) Muscle strength is the ability of a muscle or group of muscles to carry out one maximum contraction against resistance or load. Physiologically, muscle strength is the ability of a muscle or group of muscles to perform one maximum contraction against resistance or load. Muscle strength is important for every person. To achieve optimal performance, muscle strength must be increased as the underlying basis for the formation of biomotor components. other.

Giri Wiarto (2017:75) stated that muscle strength is the maximum contraction produced by muscles, which is the ability to generate tension against resistance. Men have approximately 25% greater muscle strength than women. Muscle strength can be measured with

a dynamometer. So the higher the muscle strength, the better the passing stopping in the game of football.

2. The Relationship between Balance and Passing Stopping Ability

The results of hypothesis testing show that there is a significant relationship between balance (X2) and passing stopping ability (Y). Based on the calculation results, the correlation coefficient (r) = 0.841.

Balance is a component of physical condition that is very necessary for humans, both as athletes and non-athletes, in carrying out daily activities. Balance is a person's ability to maintain the body system both in a static position and in a moving (dynamic) position, where balance is also very important in carrying out a movement because with good balance, a person is able to coordinate movements and perform some dexterity.

According to Muchammad Sajoto in Muhammad Salahuddin's Journal (2018) regarding the ability to control the body's center of gravity, which is better known as balance, that: "Balance or balance is a person's ability to control his muscle and nerve organs during rapid movements with changes in the location of the body's center of gravity. also fast both in static conditions and even more so in dynamic motion conditions."

Balance plays an important role when passing stopping, where when taking the ball you need good balance to be able to pass easily, such as the role of balance in the form of static or balance when passing standing in place, or dynamic balance.

3. Relationship of Leg Length to Passing Stopping Ability

From the results of hypothesis testing, it shows that there is a significant relationship between leg length (X3) and passing stopping ability (Y). Based on the calculation results, the correlation coefficient (r) = 0.633.

According to Amari in Arief Maulana Syamsu (2014: 7) leg length is the measurement of the length of a person's legs from the sole of the foot to the greater trochantor, approximately at the widest part of the bone on the outside of the thigh and when the thigh is moved the greater trochantor can be felt at the top of the thigh. moving femur.

Leg length consists of the upper leg, lower leg and foot. The lower limbs include the thigh bone, shin bone, calf bone and leg bone. The thigh bone is the longest and strongest bone in humans. The tip of this bone has a hemiferous head which articulates with the acetabulum of the hip. The shin bone is the strongest bone of the two lower leg bones, located on the inner or medial side, the fibula bone is a very slender bone compared to the shin bone which is located on the outside of the lower leg, while the tarsal bone consists of 6 bones that form the posterior of the foot, such as: plural bones , navicular, heel, ball of foot, metatarsal bones, toes.

4. The relationship between leg muscle strength, balance and leg length on passing stopping ability

From the results of hypothesis testing, it shows that there is a significant relationship between leg muscle strength (X1), balance (X2) and leg length (X3) on passing stopping ability (Y). Based on the calculation results, the correlation coefficient (r) = 0.846. From this, the researchers found based on the results of data processing that arm muscle strength, balance and hand eye coordination provided a relationship of 84.60%. For the remainder, it is 15.40%.

According to Waite in Abrasyi (2018: 112) Passing is the most frequently used and necessary skill, without passing, the game of football will not run well in the game. Passing technique is a technique for determining the success of the game, if mastered well then in the game you will have the opportunity to win the match. Meanwhile, according to Hidayat (2017:43) passing is a technique of receiving the ball and swinging it back in the desired direction. This technique is a basic technique in the game of soccer and must be mastered by all players.

(Lud Gerus Manek Seran, Longginus Segi 2019) said in his journal that leg muscle strength skills still need to be trained well and of course also assisted by good passing stopping in order to produce a hard kick at a target.

5 Conclusion

Based on the results of data analysis and discussion, the research conclusions are stated as follows:

1. Leg muscle strength has a significant relationship to passing stopping ability in the game of soccer

2. Balance provides a significant relationship to pass stopping ability in the game of soccer

3. Leg length has a significant relationship to passing stopping ability in the game of soccer

4. Leg muscle strength, balance and leg length are significant in passing stopping ability in the game of soccer.

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