

# Dio

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## THE RELATIONSHIP BETWEEN PHYSICAL FITNESS AND SHOOTING ABILITY OF STUDENTS INTERESTED IN FOOTBALL SPORTS TALENTS

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### Abstract

Students of the UMS Physical Education Talent Interest have several problems, namely the different levels of physical fitness of students, which can be seen when playing or practicing, causing inconsistent performance and decreased focus and concentration, which can increase the risk of injury. In addition, students are still less aware of the importance of physical fitness to playing skills, including muscle strength, which can affect their shooting ability. This condition often becomes an obstacle in improving overall game performance. This study aims to determine the relationship between physical fitness and the shooting ability of UMS Physical Education Football MBO students. This study uses a quantitative method with a correlational design to measure the degree or relationship between two or more variables, while data is collected using measurements. The sample in this study were active UMS Physical Education Football MBO students totaling 35 students. This study uses "Purposive Sampling" because this study only took male students of UMS Physical Education Football MBO at least semester 4 and above who had been participating in Football MBO for a long time. The data analysis technique used is Pearson correlation statistical analysis. The results of the study showed a significance result of 0.021 so that it can be said that there is a significant relationship between Physical Fitness and Shooting Ability of UMS Penjas MBO Students with a good level of Physical Fitness of 41% of 35 students. The level of Shooting Ability of UMS Penjas MBO Football Students obtained a very good percentage of 33% and the most 43% had moderate shooting ability.

**Keywords:** Physical Fitness; Shooting Ability; Football

### INTRODUCTION

Football is one of the globally popular sports with the need for an integration of physical fitness, technical ability, and strategic thinking (Bhatti, Bhura, and Bhura 2025). Physical fitness is one of the requirements that every football player must have. A person's physical fitness is very important in improving the quality of competition. Football players who have a fit body will be able to carry out all their physical activities without any significant fatigue. Conditions like this are demands as a player which will be required to be able to compete and produce maximum achievements. Therefore, in order to have good physical fitness, it is necessary to coach and maintain physical fitness on an ongoing basis (Darmawan 2017).

To be able to play football well, good movements and basic techniques are needed. Good football skills will be born through the mastery of the correct basic techniques and mature physical condition, which are all a form of the effect of the right training process. This means that all components programmed in the practice will affect the results of the exercises carried out in order to achieve good playing skills (Usman and Argantos 2020). One of the basic technical skills of the game of football is shooting or kicking. Shooting is the most dominant movement in the running of the football game, the main goal is to score as many points as possible against the opponent's goal (Panggabean 2021).

Students of Interest in Sports Talent Penjas UMS get several problems, namely different levels of student physical fitness, which can be seen during play and practice causing inconsistent performance and decreased focus and concentration so that it can increase the risk of injury. In addition, students are still not aware of the importance of physical fitness to playing skills, including muscle strength that can affect their shooting ability. This condition is often an obstacle in improving overall game performance. Therefore, research is needed to identify the extent of the relationship between physical fitness and shooting ability in football (Bryantara 2016).

Optimal physical fitness improves strength, agility, endurance, and flexibility, all of which play an important role in producing strong, accurate, and consistent shots. Physical fitness is a key factor to support shooting performance in football. Shooting in football is one of the techniques that plays an important role in the game of football. Good shooting skills will determine a team's victory in a match. A football player who does not master shooting techniques perfectly is unlikely to be a good player. Some of the obstacles that often hinder are the ability of individuals who are not consistent when playing, the fitness of each player and the dynamics of the game that are difficult to predict.

This research is expected to provide useful information for coaches, players, and related parties in designing a more effective training program. By understanding the relationship between physical fitness and shooting ability, training strategies can be more focused on improving relevant fitness aspects,

thereby supporting player performance to the fullest. This scientific knowledge is a reference for the process of improving football, especially the achievements of MBO Penjas students. Problems in the world of football need to be studied scientifically so that they can be solved and accounted for. In this case, the author wants to find out more clearly <sup>3</sup> the relationship between physical fitness and the shooting ability of MBO students of Penjas UMS football.

#### **METHOD**

This study uses a type of quantitative research with a correlation design. Quantitative research is a form of research by collecting numerical data and using analytical techniques to test hypotheses, draw conclusions and understand the relationships between the variables being studied. The design used in this study is a correlational design to measure the degree or relationship between two or more variables (Creswell 2018).

<sup>5</sup> The place of this research was conducted at the University of Muhammadiyah Surakarta which is located on Jl. A. Yani, Mendungan, Pabelan, Kec. More precisely, it was carried out in the field of psychology campus 2 of the University of Muhammadiyah Surakarta. This research was conducted for approximately one month, namely February 2025.

In this study, the population is all football MBO students who are still active in MBO activities totaling 56 students. <sup>4</sup> The sample in this study is 35 active students of the UMS Penjas football MBO which totals 35 students. This study uses "Purposive Sampling" because this study only takes male students of the UMS Penjas football MBO at least 4 semesters and above who have been participating in football MBO for a long time. <sup>1</sup> The data analysis technique used is statistical pearson correlation analysis. Where a particular coefficient is interpreted as a measure of the power of influence/relationship in the context of <sup>1</sup> the scientific question being asked (Schober, Boer, and Schwarte 2018).

## **1** RESULT AND DISCUSSION

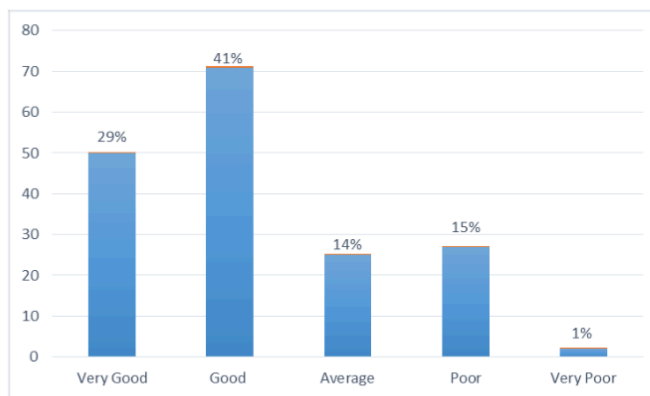
The results of this study include the results of the analysis of the level of physical fitness and shooting ability of the UMS Penjas football MBO using descriptive statistics and a person correlation test. Physical Fitness Level of Students Interested in Sports Talent Football Physical Education University of Muhammadiyah Surakarta.

Every individual needs to have an ideal level of physical fitness. It is adjusted to the demands of tasks and activities in daily life. Physical fitness is a translation of the word physical fitness which can be interpreted as a physical condition that describes physical ability, it can also be interpreted as a person's ability to do something well, without causing significant fatigue (Supariyadi, Mahfud, and Aguss 2022). Physical fitness is the ability of a person's body to perform daily work tasks, without causing significant fatigue. Good physical fitness is the basic capital for a person to carry out physical activities or daily work efficiently for a relatively long time without any significant fatigue so that they can still enjoy their free time (Arifin 2018).

Good physical fitness can be improved by paying attention to the factors needed for the activity, such as endurance, strength, speed, and flexibility. Therefore, physical activity is needed in order to improve and develop physical fitness. Physical fitness or often called physiological fitness is a person's ability to carry out daily tasks and work diligently and alertly without experiencing significant fatigue, and still have energy reserves to fill free time and deal with unexpected emergencies (Rumpoko et al. 2022).

Basically, physical fitness is influenced by two main factors which are divided into internal factors and external factors. Internal factors are factors that are inherent and persistent in an individual, such as genetic, age, and gender factors. While these external factors are factors that exist or are obtained from the outside such as exercise, physical activity, lifestyle, nutritional status, etc. The components of physical fitness include: 1) endurance, 2) muscle strength, 3) muscle strength, 4) flexibility, 5) speed, 6) agility, 7) balance, 8) coordination, 9) accuracy (Syaputra 2020).

A person's physical fitness greatly determines their physical ability to carry out their daily tasks. The higher a person's physical fitness, the higher his physical work ability. In other words, the work is more productive when the physical fitness increases. Among the physical fitness dimensions, balance was the most frequently assessed, followed by muscular strength and muscular endurance. This focus on balance, muscular strength, and endurance aligns with the emphasis of most studies on older adults and individuals with health conditions, for whom these fitness dimensions are particularly critical for maintaining mobility and independence (Klein et al. 2025). So, there is still a residual energy that can be used to do spontaneous activities, where a person who has a low level of fitness cannot do it. The level of physical fitness of students interested in sports talent Football Physical Education at the University of Muhammadiyah Surakarta can be seen in the following graph:



**Figure 1.** Physical Fitness Level of Students Interest in Football Sports Talent Physical Education Muhammadiyah University of Surakarta

Figure 1 shows that most of the UMS Penjas football MBO students have a good level of physical fitness. From 35 students, a good percentage of 41% was obtained, so it can be said that there are many MBO students of Penjas UMS football who have good physical fitness and do not experience fatigue or injury while playing football. This means that students have strong physical endurance.

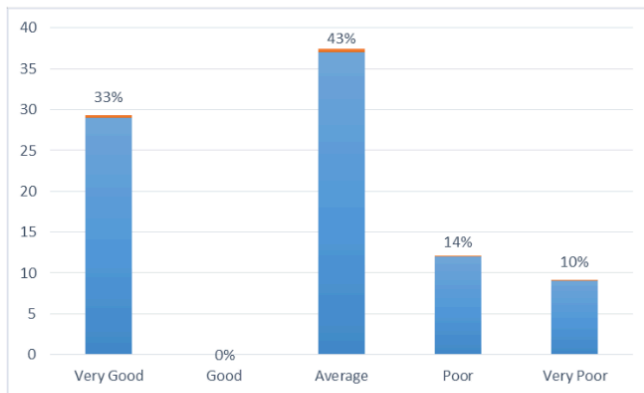
Meanwhile, the results of the percentage are not good at only 1%, so only a few students experience physical fatigue.

Shooting Ability Level of Students Interest in Sports Talent Football Physical Education University of Muhammadiyah Surakarta. One of the basic skills that is important for players to master is the ability to shoot both from a distance and at close range. Shooting ability is important for players because it is impossible for players to score goals without having these abilities. Shooting ability can be supported by starting when shooting with the right accuracy (Samsudin 2022). Shooting is an attempt to put the ball into the opponent's goal (Gemael 2020). Shooting can be done using the entire leg. Shooting can also use the instep. The most important aspect in forming is the supporting foot, the placement of the supporting foot angle greatly determines the direction, contact of the foot with the ball and the power of the kick. One of the physical conditions that is thought to affect shooting ability is strength, especially leg muscle strength (Arwandi 2020). Shooting is quite easy to do, but high accuracy is required so that the shooting is difficult for the goalkeeper to anticipate so that it can result in a goal (Paisal, Samsudin, and Setiawan 2024).

Without shooting, a team will not be able to create goals and win a match. Shooting is an attempt to move the ball from one place to another using a foot or a part of the foot (Yogi 2018). The objectives of shooting practice are: (a) to improve the sharpness and accuracy of the kick in front of the goal, (b) to improve the quick understanding of taking advantage of opportunities in the opponent's area so that it can result in a goal, (c) to increase composure in the final finish, (d) to improve the goal-scoring instinct. The purpose of kicking the ball is to pass, shoot, and sweep to thwart the opponent's attack.

There are several other basic principles of shooting and must also be used as a guideline when making a kick, namely: (1) The player who will make the kick must have a positive attitude or a high sense of optimism about his kick so that he can do it well and correctly. (2) Players must also have an aggressive attitude or aggressive disposition when kicking. This is intended so that players when executing kicks do not do it softly or half-heartedly. (3) Determine the direction of

shooting as early as possible. Delays in determining the direction of the kick will result in hesitation and make it easier for the goalkeeper to anticipate the kick, (4) when a player is facing with a one-on-one goalkeeper, he has to take a kick while the goalkeeper is still moving. The level of shooting ability of students interested in sports talent Football Physical Education University of Muhammadiyah Surakarta can be seen in the following graph:



**Figure 2.** Shooting Ability Level of Students Interest in Football Sports Talent Physical Education Muhammadiyah University of Surakarta

Figure 2 shows that most of the UMS Penjas football MBO students have an excellent level of Shooting Ability. From 35 students, the results were obtained with a very good percentage of 33% and the most 43% had moderate shooting ability, so it can be said that there are many MBO students of Penjas UMS football who understand how the techniques and principles of shooting and have sharpness for the accuracy of kicks in front of the goal so as to produce goals. Meanwhile, the percentage results are not good at only 10%, so there are only a few students who do not master shooting in football.

The Relationship between Physical Fitness and Shooting Ability of Students Interest in Football Sports Talent, Physical Education, Muhammadiyah University of Surakarta

**1** **Table 1.** Results of the Person Correlation Test of the Relationship between Physical Fitness and Shooting Ability of Students Interest in Football Sports Talent, Physical Education, Muhammadiyah University of Surakarta

		Physical Fitness Ability	Shooting Ability
Physical Fitness	Pearson Correlation	.3	.3
	Sig. (2-tailed)	.90*	.0
		21	
Shooting Ability	Pearson Correlation	.35	.35
	Sig. (2-tailed)	.390*	.021
	N	35	35

**1** Based on the results of the research that has been carried out using the person correlation analysis above, it shows a significance result of 0.021 so that it can be said that there is a significant relationship between Physical Fitness to Shooting Ability, Student Interest, Sports Talent, Football, Physical Education, University of Muhammadiyah Surakarta. The results of this study mean that Physical Fitness has a part in improving Shooting Ability in football. Physical Fitness is an important part of improving Shooting Ability.

The results obtained show that the physical fitness test has the ability to improve the shooting skills used in the game of football. The ability to shoot accurately is needed by football players, so they have a high level of expertise. Shot is a technique used to score goals against the opponent's goal (Nugroho 2024). Based on the findings of the data presented above, it is explained that physical fitness can improve fundamental shooting techniques. Activities for physical fitness are programs that need to be made methodically to improve the body's ecological capabilities and strengthen physical fitness. When we talk about physical fitness, we are referring to the capacity of the human body to perform activities of daily life without experiencing excessive fatigue. A person's level of physical fitness is significantly affected by the type of physical activity they engage in regularly. In carrying out routine activities, a person's physical condition is very important. In order for MBO Football students to be able to carry out activities effectively and not experience undue fatigue, it is very important for students to have a high level of physical fitness.

## CONCLUSION

Based on the results and discussion above, it can be concluded that the significance result is 0.021 so it can be said that there is a significant relationship between Physical Fitness to Shooting Ability of Students, Interest in Sports Talent, Football Physical Education at the University of Muhammadiyah Surakarta. MBO students of Penjas UMS football have a good level of physical fitness of 41% of 35 students. The level of Shooting Ability of MBO students in Penjas UMS football was obtained with a very good percentage of 33% and the most 43% had moderate shooting ability.

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