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Analysis of Factors Causing Sports Injuries in Students' Interest and Talent in Football Sports Reviewed from Player Positions (Analysis Study on Students' Interest in Sports Talent)

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ABSTRACT

This study aims to analyze and determine the percentage of sports injuries and the factors causing sports injuries viewed from the position of the players in students of sports talent interest (MBO) football Physical Education, Muhammadiyah University of Surakarta. This study uses a quantitative descriptive approach with data collection techniques using questionnaires. The research sample consisted of 26 MBO students from the 2021-2024 intake who had a history of sports injuries when playing football and were willing to be studied. Data analysis used the chi-square test to determine the relationship between sports injuries and player positions. The results of this study indicate that the most common injury experienced by MBO football students when playing football is ankle injury (65.38% from various positions). While the biggest factor that influences sports injuries in MBO football students is external factors, namely field conditions and contact with other athletes, each of which is 38.46%. The results of the Chi-Square test that has been carried out concluded that there is no significant relationship between sports injuries and player positions.

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1. INTRODUCTION

Football is a popular sport in the world(Sudirman et al., 2021)which can be played by various groups, from children, teenagers, to adults. This game is quite simple and can be played by anyone. So many people who have a hobby of playing football even make it a profession. Football is a ball game using the feet with the aim of putting the ball into the opponent's goal as much as possible to create goals by adhering to the rules that have been set(Sudirman et al., 2021). Therefore, it takes prime physical and mental stamina to support performance when playing football.

In addition to being loved by many people, football itself has another side, namely the risk of injury. The risk of injury in football can also be an important concern for both junior athletes, senior athletes, amateur athletes, and professional athletes. In the game of football, of course, there are various risks, especially sports injuries. Sports injuries are a form of injury experienced during training, competing or after competing. Sports injuries are generally caused by several factors including physical stress, technical errors, collisions, field factors, equipment worn, or physical activity that exceeds the training load. (Hardyanto & Nirmalasari, 2020). Sports injuries are hard to avoid, both for the general public who like to exercise and even professional athletes. The negative impacts that arise from injuries

to athletes are not only detrimental to themselves, but can also be detrimental to the club or team where the athlete in question plays.(Rahman & Warthadi, 2023). Therefore, it is important for us to know what factors can cause injuries, especially in football games, to minimize the negative impacts that harm yourself and your club or team. Every sport must know what a sports injury is and there are also ways to handle it. It is not uncommon for sports enthusiasts to experience injuries during sports, including injuries to muscles, bones, ankles and hands.(President, 2022). No exception in the sport of soccer. According to(Rosi Marcelia Yuliza et al., 2022), the development of football sports has an impact on the high number of lower extremity injuries, it is recorded that 68%-88% of injuries in football or futsal occur in the lower extremities and the majority of these injuries occur in the ankles and thighs. Ankle injuries contribute almost 14%-17% in football or futsal.(Jodi & Kushartanti, 2019).

2. METHODS

Based on the problems raised, this research is a type of quantitative research with a descriptive approach. Quantitative research methods are research methods that are generally used to research populations and samples and have quantitative data in the form of surveys with data collection techniques using questionnaires by giving structured questions to samples from the population to receive information from respondents. Before the questionnaire was distributed, respondents were given directions in filling out the questionnaire.

This study uses a descriptive approach that aims to describe an object of research or research results. A descriptive approach is an approach that describes the results using research results, which aims to provide a description or explanation of the research being studied (Ramadhan, 2021).

This research will be conducted in December 2024 in the psychology field of UMS. The population in this study were all students of the UMS Physical Education Football MBO. A sample is a portion of the number and characteristics possessed by a population. A sample consists of individuals selected from a larger group of people or things, called a population.(Sutama, 2019). The sample in this study were MBO football students who had a history of sports injuries from the 2020-2024 class and were willing to be studied by researchers as many as 26 people. The sampling method in this study used the purposive sampling method. The purposive sampling technique is a technique for determining and taking samples determined by researchers with certain considerations(Nasution, 2017).

The data analysis technique in this study uses descriptive statistical data analysis techniques using a test instrument in the form of a questionnaire. Descriptive statistics are a part of statistics regarding data collection, presentation, determination of statistical values, making diagrams or pictures about something, here the data is presented in a form that is easier to understand or read.(Nasution, 2017). Furthermore, to calculate the percentage included in the category in each aspect, the formula used is:

$$P = \frac{F}{N}\text{X } 100\%$$

3. RESULT AND DISCUSSION

This study aims to determine the percentage of sports injuries and the factors causing sports injuries reviewed from the position of the player in students of sports talent interest (MBO) football. Based on data analysis conducted using statistical calculations and the SPSS 30 application program, the results of this study revealed that there was no significant relationship between sports injuries and the position of MBO Physical Education football players. This finding provides an understanding that sports injuries can be experienced by anyone who does physical activity, especially in football games. This finding also discusses the factors that influence sports injuries in students of sports talent interest (MBO) football.

The results of this study indicate that the majority of injuries in MBO football students are ankle injuries with a frequency distribution of 65.38% with the biggest causal factor being the condition of the field at 47.06%. This is appropriate, because according to (Anggriaswati & Sutopo, 2022). Most stadiums and football fields in Indonesia do not have good quality for a match. Poor quality fields can increase the risk factor for ankle injuries, especially fields with uneven soil and grass conditions. In addition, ankle injuries are dominated by attackers, namely 72.73%, where attackers are usually required to run and accelerate quickly. The high percentage of ankle injuries in MBO football students is also due to the dominant movement activities of football players using their feet. The movement activities carried out by football players include running, dribbling, kicking, passing the ball, all of which use their feet. This makes the ankles very susceptible to injury (Hermawan, 2015).

In the description of the data that has been done by the researcher above, various injuries were found from various player positions, including ankle injuries which are the majority of injuries experienced by players from various positions, from the back position (60%), center players (60%), and attackers (72.73%), the factors that dominate the causes of injuries from various positions include,

the back player position is dominated by the field condition factor (50%), center players are dominated by the contact factor with other athletes (60%), attackers are dominated by the field condition factor and contact with other athletes (36.36%). In the case of ankle injuries themselves, there are dominant causative factors, namely the field condition factor (47.06%), followed by the contact factor with other athletes (41.18%) and the last is the recurrence factor of previous injuries (11.76%). In knee injuries, there are only 2 factors experienced, namely the overuse factor and contact with other athletes, each of which has the same percentage (50%). Thigh injuries are dominated by the field condition factor (50%). In shoulder injuries experienced by respondents, there are factors of contact with other athletes, foot injuries with the recurrence factor of previous injuries and lower leg injuries with the overuse factor. The factors causing injuries are classified into two, namely internal factors and external factors, where the internal factors experienced by MBO students only have a percentage of 11.54% while the external factors causing injuries have a percentage of 88.46%.

In the results of data analysis, researchers conducted various tests, including normality tests. Where the normality test is used to determine whether the data has a normal distribution or not. The criteria used to determine the distribution of data are as follows: if the p value> 0.05, the data is considered to be normally distributed, while if p <0.05, the data is considered not normally distributed. Based on the tests that have been carried out, the values of p = 0.014, p = 0.135, p = 0.047 were found, which means that the defenders and attackers are not normally distributed because <0.05 and the midfielders are normally distributed because they exceed the significance limit> 0.05. Therefore, the assumption of normal data is not met. If the assumption of normal data is not met, a non-parametric test can be carried out. The next test carried out by researchers is the Kruskal-Wallis test. The Kruskal-Wallis test is used to determine whether or not there is a difference between 3 unpaired groups. The data scale used is ordinal data, it can use interval/ratio data, provided that the assumption of normality is not met (the data is not normally distributed). From the data that has been tested by the researcher, the Asym. Sig value of 0.861 was found, which means that it is more than the significance limit (> 0.05) concluding that there is no significant difference between the defenders, midfielders, and attackers. The next test is the homogeneity test to determine whether two or more sample groups come from populations that have the same variance. In a statistical context, this is important to ensure that the groups can be compared validly, because significant differences in variance between groups can affect the results of the analysis. In the homogeneity test, the researcher found a sig. (based on mean) value of 0.385, which means that the data variance is homogeneous, the assumption of homogeneity data is met. The last test is the Chi-Square test, which is used to test the relationship or difference between categories in nominal or ordinal data. This test works by comparing the observed frequency with the expected frequency and then calculating the Chi-Square value based on the difference. In the Chi-Square test, the Asymp. Sig value was found to be 0.371, 0.339, 0.858, the value is more than the significance limit of 0.05 (> 0.05) which means there is no significant relationship between player position and sports injury. This is in accordance with previous research from Nurwahida, namely, physical condition is the biggest factor for each athlete that plays a role in determining the athlete's injury risk factor. Where the risk of injury is divided into two factors, namely the internal factor of the athlete's own expertise (intrinsic) and extrinsic factors. Intrinsic factors consist of components owned by the athlete including physical condition and technical skills.Where these components affect the athlete's performance when training and competing and these risk factors can be minimized (Puspitasari, 2019).

4. CONCLUSION

Based on the results of the study conducted on MBO football students of Physical Education, Muhammadiyah University of Surakarta, several conclusions were obtained as follows: ankle injuries are injuries that are often experienced by amateur football players, where uneven field conditions can increase the risk of ankle injuries. In the injuries studied by the researchers, external factors were found to be the highest factor with a percentage of 88.46%. Ankle injuries with field conditions were the highest percentage in this study.

Physical condition is the biggest factor for every athlete that plays a role in determining the risk factors for athlete injury. Where the risk of injury is divided into two factors, namely the internal factor of the athlete's own expertise (intrinsic) and extrinsic factors. Intrinsic factors consist of components owned by athletes including physical condition and technical skills. Where these components affect the athlete's performance when training and competing and these risk factors can be minimized(Puspitasari, 2019). This study also found that there is no significant relationship between playing position and the injury experienced and the causative factors in football sports injuries.

AUTHOR'S STATEMENT

In this study, the researcher has never published in other scientific journals/publications and there is no element of plagiarism. The author wrote this article in a healthy and as-is condition without any interference or pressure from other parties.

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