

CORRELATION BETWEEN LEVEL OF ANXIETY WITH THE RESULTS OF PENALTY STROKE IN FIELD HOCKEY

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Abstract

Anxiety is often considered to be an important factor affecting athletic performance. One of them is ice hockey. This study is about the fear of field hockey penalty kicks. The purpose of this study is to clarify the correlation between anxiety levels and penalty kick results in field hockey games. The survey method used the descriptive correlation method. The survey sample consisted of 25 field hockey players from the activity unit of the Hockey Student Association of Indonesia University of Education and was extracted using a saturated sampling technique. The equipment used is the Sports Competitive Anxiety Test (SCAT) Questionnaire and Penalty Stroke Test to measure anxiety levels. Statistical hypothesis testing was performed using IBM SPSS Statistics version 21 software. Correlation between anxiety level and penalty stroke score using Pearson's statistical analysis. The results of the analysis show the value of sig. of anxiety level is -0.632 , $p < 0.05$, H_0 is rejected at fear level. This means that there is a significant correlation between fear levels and the outcome of field hockey penalty kicks.

Keywords:

anxiety, hockey, penalty stroke

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Introduction

Anxiety is generally considered an important factor influencing sports performance (Kleine, 1990). Psychic factors can be decisive for winning or losing in sports (Kleine, 1990), especially at the time of a stroke penalty-taking situation. *Penalty stroke* is an advantage in a hockey match when a player is able to do it well, because in that situation a player must have good composure in order to score goals to add points for his team. Speaking calm is usually associated with anxiety. High anxiety can result in a decrease in appearance which ultimately leads to failure to perform a *penalty stroke*. This is in accordance with what Raglin (1992) stated, namely increased anxiety is the cause of poor performance in most athletes. Anxiety and stress affect young people as well as adults, both team and individual sports although with different effects (Gaetano et al., 2015).

Anxiety has always been a basic human emotion (Ivanović¹ et al., 2015). In sports there are many psychological factors that influence an athlete to achieve success in sports, One of the psychological factors that play an important role is

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anxiety (Saadan et al., 2015). Sports psychologists have long believed that a high level of cognitive anxiety during competitions is dangerous, worsens performance and even leads to failure (Parnabas et al., 2015). Research shows that anxiety will be seen in athletic or sports situations, resulting in a decrease in physical activity due to concern (Norton et al., 2004). In addition to the nature of anxiety, better team rankings and match locations such as away can generate anxiety (Wolf et al., 2015). Other aspects of anxiety are nervousness, tension, and bodily disorders such as heart palpitations due to autonomic reactions (Kaye et al., 2015). There are several symptoms that affect anxiety, one of which is cognitive symptoms, namely pessimistic self incapacity, worry if the results are bad, not sure about yourself, fear if unable or unsuccessful (Kaye et al., 2015). The importance of the athlete learning to recognize and manage anxiety in himself so that the athlete will be able to better manage competitive anxiety (Gaetano et al., 2015). In addition to being able to control himself during a *penalty stroke*, a player must be able to reduce the level of anxiety so as to cause a sense of calm and confidence to do it. Facing a complicated situation filled with many human eyes paying attention to a hockey player on the court, players must be able to control themselves.

Field hockey is a sport with a long history that has undergone changes quite quickly in the last decade, the game is played on a field with a length of 90 m and a width of 55 m (Reilly & Borrie, 1992), with sixteen players qualified to play per game and eleven players on the field (Linke & Lames, 2017). While indoor hockey or indoor hockey is a new variation of the game of field hockey, where during winter the sport of indoor hockey becomes more popular especially in European states (Hollander et al., 2018). Indoor hockey is the most frequently played six-sided game in sports halls performed on a 44x22 m court with a 0.10 m high board flowing down each line to keep the ball in the game (Vinson & Peters, 2016). This aspect of hockey is unique in that the rules of the game limit where to attack and defend (Marines, n.d.), unlimited substitutions of players during matches (Jennings et al., 2012; Linke & Lames, 2017) and Players are required to pay attention to the position of the half-squat body when controlling the ball or grabbing the ball from the opposing side (Lidor & Ziv, 2015).

The goal of a hockey game is to move the ball to the opponent's defensive area to hit or push the ball into the opponent's goal by using a hockey stick (Lidor & Ziv, 2015), and defending one's own goal from being entered. A match consists of two rounds, 35 minutes each, with a break interval of 5 to 10 minutes, while an indoor hockey game consists of 2 x 20 minutes in one match (Dr. David Collier OBE & Andre Oliviera, 2019). Basic techniques in the sport of hockey according to (B & Hockey, 2013) include *push* (pushing the ball), *hit* (hitting the ball), *stop* (holding the ball), *dribble* (dribbling), *flick* (gouging the ball), *jab* (reaching the ball), *tackle* (snatching the ball), and *scoop* (lifting the ball). Stick speed and ball control are two important skills in the game of hockey (Thiel et al., 2010)

Methods

The research method used in this study is a quantitative approach with a *correlational descriptive* method, what is meant by the descriptive method is a method that serves to describe or provide an overview of the object under study through data or samples that have been collected as it is.

Participant

The participants involved in this research were students who were members of the Unit Kegiatan Mahasiswa Hockey Universitas Pendidikan Indonesia. The number of participants involved in this study was 25 people. UPI Hockey UKM is considered suitable for this research, because the researchers themselves want to know a picture of the level of anxiety in students who are members of UPI Hockey UKM and how it relates to the results of *stroke penalties*.

Population & Sample

Fraenkel et al. (2012) explained that the population is a larger group than the group that the data will take in a study. According to Sugiyono (2012) population is defined as a generalization area consisting of: objects / subjects that have certain qualities and characteristics set by the researcher to be studied and then drawn conclusions.

The population used in this study was ukm hockey Universitas Pendidikan Indonesia. The sample in this study was students who were members of the Hockey UKM, Universitas Pendidikan Indonesia. The sampling technique used by researchers is saturated sampling. Because all members of the population are used as samples".

Instrument

The instrument used to measure anxiety levels is a questionnaire from Mackenzie (2005). The questionnaire used is the *Sport Competition Anxiety Test (SCAT)*. Then to measure the results The *penalty stroke* test is a *penalty* shot test based on the range of the goalkeeper based on the Aussie Sport Coaching Program (1991) book "*For the shots to the right the stick and left glove are used and glove save to left*", this statement indicates that a goalkeeper will use a stick and *glove* it is to hold the ball to the right of the goal and the goalkeeper will only use a glove if the ball is towards the left of the goal. It can be assumed that the probability of a goal towards the left of the goal is greater than the right area of the goal, because if the ball is directed to the left area of the goal the goalkeeper will only use a *glove*. This makes his highest score placed on the left of the goal.

Procedure

Participants or samples of seated discussions that have been provided to perform an anxiety test by filling out the questionnaire that has been provided, after visiting the sample anxiety questionnaire are getting ready to do a *stroke penalty* test. After doing an anxiety test, the next step is, all samples perform a *penalty stroke* test for 5 shots.

Data Analysis

Data analysis in this study using the help of the *SPSS program version 21 for windows*. After the data from the anxiety level and *penalty stroke* test results are collected, the first step is to process and analyze the data statistically. The first analysis is a descriptive analysis with the aim of determining the *mean, median, maximum and minimum* values of each variable. Then analyze the normality test to see whether the data used in this study is normally distributed or not. The data is normally distributed then processed using the *Pearson Formula correlation or Product Moment*. Once the correlation numbers are obtained, then part of the two *SPSS outputs* is to test whether the correlation numbers obtained are really



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significant or can be used to explain the variables. The final stage is the calculation of determination, which is to find out the prediction of how much influence or contribution the level of anxiety has with the result of a *penalty stroke* in the game of hockey *field*.

Result

The data of the results of the tests carried out are as follows

Table 1. Descriptive Statistics

Your	Sample count	Mean	Std. Deviation	Minimum	Maximum
Anxiety	25	19.00	3.884	11	25
Penalty	25	16.68	5.551	3	25

From the table above, it can be described: from 25 samples who took the anxiety test, an average score of 19.00 was obtained, a standard deviation of 3,884 a minimum value of 11 and a maximum value of 25. Of the 25 samples who took the penalty stroke test, an average score of 16.68 was obtained, a standard deviation of 5,551 a minimum value of 3 and a maximum value of 25.

The correlation value of *anxiety* with *penalty stroke* in hockey *field* sports is $R = -0.632$, $p = 0.001 < 0.05$, H_0 is rejected. There is a negative and significant association between anxiety and *penalty stroke* in the hockey *field*. The higher the anxiety value, the lower the *stroke penalty* value, on the contrary, the lower the anxiety value, the higher the *stroke penalty* value. The relationship between anxiety levels and stroke penalty of -0.632 has a moderate correlation.

The picture of the results in this study is that there is a significant relationship between anxiety and *stroke penalty* of -0.632 and a contribution of 39% and the remaining 61% is influenced by other factors. This factor can be influenced by the form of *stroke penalty* training during hockey UKM training, then the fitness factor of each player so that they are able to control stress when committing a stroke penalty.

Discussion

The discussion of these findings describes the problems and findings that emerged during the study of the relationship between anxiety levels and the results of a penalty stroke in a field hockey game. The problems that arise are in the form of shortcomings from this study which were still not perfect at the time of the research. However, on the other hand, this research has found useful new things to improve further research. The following are some of the findings formulated by the researchers as follows: An overview of the results of research that has been carried out by researchers who want to know the relationship between anxiety levels and penalty strokes in field hockey games. The results of this study are that there is a significant relationship between anxiety and penalty stroke of -0.632 and a contribution of 39% and the remaining 61% is influenced by other factors. The b factor can be influenced by the form of penalty stroke training during hockey UKM training, then the fitness factor of each player so that they are able to control stress when doing a penalty stroke. Hockey is one of the group sports games where each player will be faced with various external aspects that will at least affect his game

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such as opponents playing and spectators. Basically, some of these factors are very influential on every sport of achievement, even inseparable in the sport of hockey where a *stroke penalty* can be used as a powerful weapon and can be a victory for teams that get a *stroke penalty opportunity* if they succeed in doing so.

The results of data analysis obtained from data processing are that there is a significant relationship between anxiety and penalty stroke in field hockey games. But in addition to anxiety there are other components that affect the *penalty stroke*.

Conclusion

Between anxiety and *penalty stroke* in the game of hockey *field* has a significant relationship. The results of this study were that there was a significant relationship between anxiety and *stroke penalty* of -0.632 and a contribution of 39% and the remaining 61% influenced by other factors.

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