

# Knowledge and it's Mental Awareness Toward the Incidence of Sports Injuries Among Participants of Student's Football Team

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**Abstract-** There are internal and external factors affecting the occurrence of sport injuries, in which psychological aspect can be considered as one of the factors. This study aimed to analyze the correlation between the knowledge and mental responses of sports injuries among participants of student's football team in Universitas Pendidikan Ganesha. This research used quantitative method, using questionnaires, observation, and interview with 78 samples. The t-test was used to determine the association between knowledge and mental responses of sport injuries. Results indicated that majority of the students of football players who had poor mental stability with low level of knowledge in sport injury had the highest risk of incidence of injuries. This implies that knowledge and mental toughness can be used as one of the psychological predictors of injuries. It is recommended that athletes, coaches, managers, and officials attend collaboration programs to evaluate mental and physical sport injury problems of athletes.

**Keywords**—*knowledge; mental responses; sport injury.*

## I. INTRODUCTION

The university deals with student not only in academic curricular activities but also in extracurricular activities. There are many choices of extracurricular activities available in universities, depending on the interests of the students, for example arts (including traditional and contemporary dances), music (i.e. traditional music, popular music and choirs), and sports (i.e. football, futsal, karate, basketball, volleyball, tennis, and others). Sport extracurricular clubs are favorites among students majoring in the field of physical health sciences and sports medicine.

The implementation of the exercise training programs should emphasize the guidance of training according to sport medicine science. One of the rules related to the program which is set as a guideline for adequate dose of training to avoid over-training and other health issues resulted from over-training. Students in sports faculties in general are experienced as athletes, or at least they are talented in sports with a very high

interest in sports. The students have high need of achievement to improve their skills of sports, other than trying to achieve the main goal of being teachers or lecturers in physical education and sports science. Among these students, those who are professional athletes are those subjects with intensive individual trainings in order to gain sports achievements.

However, behind all these tasks there are health problems as a risk for professional athletes's activities. In the matter of carrying out athletes' activities, athlete needs full support from their own physical's body components in order to achieve maximum performance. Agility, flexibility, speed and endurance are some of the physical components that athletes need while exercising [1]. Active athletes have a very high risk of sports injuries, both from within the body and stimuli from an external factor. Injuries are involuntary, physically disruption where injuries usually happen accidentally and result in an experience of the sufferer's physical discomforts [2].

The competitive atmosphere between junior or younger athletes with senior athletes contributes significantly to the pattern of their trainings. The rising of amount of achievements in sports tournaments by young athletes encourages senior athletes to train harder. The same goes to young athletes when senior athletes keep giving out exemplary performance, the younger athletes would be inspired to train harder. The beliefs that the achievements of the senior athletes and their skills and endurance in difficult circumstances as a result of experience could trigger younger athletes to train harder. This competitive atmosphere often inspire both younger athletes and senior athletes to an impose physical training that bring risks to the body. Because the body has a certain limit of endurance and ability to recover from fatigue, imposing training regiments can be forceful to the body and may make the body vulnerable to injuries. The importance of warm up and cooling down also needs to be socialized to athletes because there are still many athletes who consider this less important and there are still a number of coaches who pay less attention to this process and pay more attention to the core of training with targets to be achieved.

Injuries caused by factors of overtraining. Long-term physical exercise and exercise that exceeds the body's capacity can cause injury. That is because the body is not prepared to carry out severe activities for long periods of time and does not have enough time to recover from the physical condition after the training activity. There are some conditions of the injured athlete who are not getting his time to join the recovery rehabilitation program becomes one of the factors that it caused aggravates of the injury. Injuries caused by repetitive movements in the form of pressure on the joints, for example in football, it requires the ability to understand the risk of injury and the psychological awareness of the athlete to protect joint resistance against injury as a risk of the movement.

The first considerations in preventing injury is to accept the fact that injury cannot be avoided during training [3]. Factors causing injury in the form of stimuli or stimuli from external side is physical contact. Some sports involve the physical contact of athletes in it, such as football. Football includes body contact that is very susceptible to injury, both head, torso, arm or leg injuries. The risk of injury to a sport involving higher physical contact than does not involve physical contact between athletes. This is due to the stimulus and impact arising from the athlete's movement cannot be predicted and the repeated contact can also aggravate the injury without being realized by the athlete [4]. The athlete's attitude in case of mental responses towards injury is an individual. Different athlete responses to injuries experienced as well as responses to the process of rehabilitation of injuries determine the level of mental responses among athletes to re-engage in competition. Once an athlete faces an injury, there are several possible attitudes that himself will develop including denial, distress and determined coping. Distress can be manifested in several forms of emotional responses that arise such as shock, anger, anxiety, depression, guilt, withdrawal and feelings of helplessness. Denial relates to the feeling of not believing in the failure received so that it leads to rejecting the occurrence of an injury experienced. Determined coping is the phase of acceptance of an injury condition and understanding the short-term and long-term effects of an injury experienced on an athlete's career [5].

The density of field activities for football team students makes students have a higher risk of sports injuries. This phenomenon encourages authors to describe the relationship between the knowledge of sports injuries and mental responses among student's football team participants.

## II. METHODS

The type of research used was quantitative observational analytic research with cross sectional approach. The research was conducted at Ganesha University of Education. The subjects of the research were the students of the Faculty of Sport and Health who were enrolled in the Student's Football team. The population of this research covered all students

participating in the Ganesha University of Education student's Football team. The samples in this research were taken through simple random sampling technique, though which 78 students were andomly selected as samples. The data collection was carried out directly to research subjects through interview techniques assisted by questionnaires.

## III. RESULTS AND DISCUSSION

Descriptions of the general characteristics of respondents were conducted in order to obtain a clear picture of the characteristics of respondents in the results of the study.

### A. Experiencing Sports Injury

The experience of experiencing an injury to a respondent was categorized as an experience of having an injury and had never experience injury. Table 1 bellow lists the history of the suffered sports injuries that had been experienced by the samples.

TABLE 1. HISTORY OF SUFFERED SPORTS INJURY

Sports Injury	Frequency	Percentage
History +	33	42.3
History -	45	57.7
Total	78	100.0

From Table 1 above, it can be observed that from 78 respondents interviewed, 33 respondents or 42.3% of them claimed that they had never experienced sports injuries, while 45 respondents or 57.7% claimed that they had experienced sports injuries. This means that more than half of the respondents reported that thet had never endured sports injuries prior to the data collection.

### B. Sport Injury Prevention Subject Course Score of Respondent

The score of Sport Injury Prevention Subject was grouped into 3 categories, namely score 65-78, 79-84, and > 84. The following table lists the scores in their the Sport Injury Prevention Class.

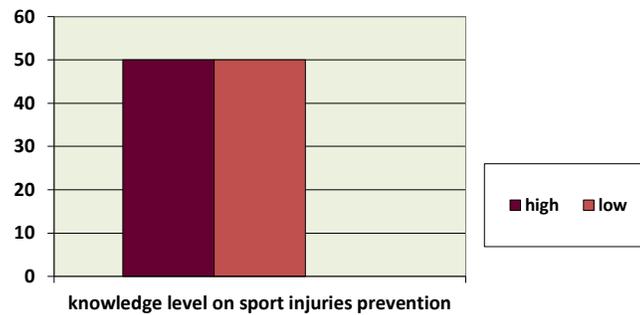
TABLE 2. SPORT INJURY PREVENTION SUBJECT COURSE SCORE

Subject Test score	Frequency	Percentage
60-74	12	15.4
75-84	62	79.5
> 84	4	5.1
Total	78	100.0

From the Table 2 above, it can be observed that among the 78 respondents, 12 students, or 15.4% of the total respondents, scored 60-74 in their Sport Injury Prevention Class; 62 respondents, or 79.5% of them, achieved the score of 75-84 in their Sport Injury Prevention Class' and only 4 students, or 5.1% of the total respondents, achieved the score of above 84. This means that very few students had a very good theoretical understanding about prevention of sports injuries, while the majority of the respondents had good theoretical understanding about prevention of sports injuries, and an alarming 15.4% of the total respondents had only sufficient knowledge about prevention of sport injury prevention.

C. Knowledge of Sports Injuries Knowledge

Know are grouped into 2 categories, namely high-level and low-level knowledge of sports injuries. The following chart shows the data about the knowledge of sports injuries.

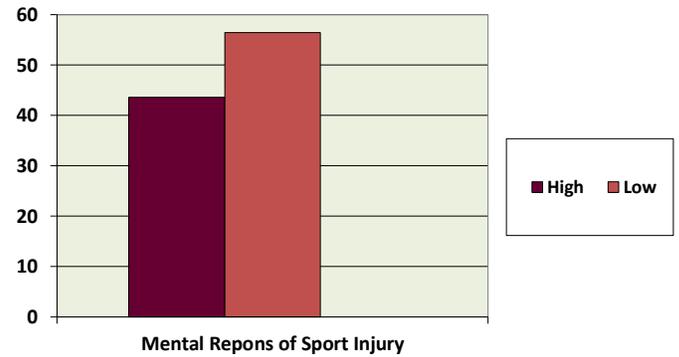


Graph 1. Knowledge level of Respondents

Graphic 1 above shows equal number of students who had high and low knowledge about sports injuries. There were 39 respondents (50%) which could be categorized as having low-level category in knowledge, which was equal to the number of students having with the high-level category of knowledge about sports injury.

D. Mental Response to Facing Sports Injuries

Mental response data from respondents were grouped into good and poor mental responses.



Graph 2. Mental Response of Sport Injury

From Graphic 2 above, it can be seen that there were 34 students or 43.6% of the total respondents were categorized as having a poor mental response in facing sports injuries; while 44 students, or 56.4% of the total respondents, were categorized as having good mental responses.

The relationship between knowledge of sports injuries and student mental responses will be explained in Table 3 below.

TABLE 3. CORRELATION BETWEEN KNOWLEDGE LEVEL AND MENTAL RESPONSE OF FACING SPORT INJURY

Knowledge of Sport Injury	Mental Respon of Facing Sport Injury			
	Good		Poor	
	N	%	N	%
Good	7	9	12	15.4
Poor	1	1.2	58	74.4
Total	8	10.2	70	89.8

Based on the Table 3 above, there is a tendency that students whose knowledge of sports injuries were in good category were also recorder to have a better mental response to be aware in facing sports injuries than students who have a poor level of knowledge about sports injuries. It shows that students who have low-level knowledge of sports injuries had a poor mental response to 7 respondents (9%) and only 12 respondents (15.4%) had a good mental response, while students with knowledge of sports injuries in high-level, as many as 1 respondent (1.3%) with poor mental response of sports injuries and 58 respondents (74.4%) had a good level of mental response.

Based on the table and the correlation test results it is can be shown that the significance value or  $p = 0,001$  or smaller than 0.01, it can be concluded that there is a significant correlation between the level of knowledge of students about sports injuries and mental responses to sports injuries.

The results of this study are matched with relevant theory and research that precedes its implementation. The variable knowledge of students about sports injury as the independent

variable in this study is a variable that has a statistically significant relationship with mental response of facing sports injuries. Knowledge of sports injury is defined by researchers as a result of knowing an athlete in the form of a number of facts about sports injuries. This study describes the level of knowledge of sports injuries possessed by Ganesha University of Education student's football team, which is 74.4% in the high-level of knowledge category where the researchers looked at the results of questionnaire data tabulations. Knowledge of sports injuries among samples shows the following data:

*A. First Aid for Injuries*

It was found that there was a tendency for students to understand the Rest Immobilization, Compression and Elevation RICE method with good implementation.

*B. Management of acute and repetitive sports injury*

Although they have understood the basic knowledge about the initial management of sports injuries, students as respondents in this research is not able to understand the handling of injuries after the RICE method and there are still students who do not understand the RICE method well. The results of the research data tabulation show the importance of efforts to improve the knowledge of sports injury.

Other studies that is relevant to this research is the impact of witnessing athletic injury: a qualitative examination of vicarious trauma in artistic gymnastics where in this study explores the mental response of gymnastic athletes after seeing their colleagues injured in the last 3 years. Their initial response is determined coping which then makes their perception aware to the risk of sports injury. The mental response among students in this study about the coping mechanism has occurred. It was not well categorized because the guideline used in this research. This research used to assess mental response by examining sport anxiety by checking the level of anxiety by using the Hamillton Anxiety Scale. This research is a quantitative research. According to a relevant research, it requires a qualitative explanation on the relationship of knowledge and the correlation between knowledge affects the mental response associated with the athlete's emotions.

Other study is the implementation of the Knee Injury and Osteoarthritis Outcome Score (KOOS) model by Rodriguez-Merchant in 2012. KOOS was an instrument in the form of a questionnaire developed with the aim of assessing symptoms and difficulties experienced by someone after repeated injuries and osteoarthritis of the knee. KOOS consists of 5 subscales namely Pain, other Symptoms, Function in daily living (ADL), Function in sport and recreation (Sport / Rec) and knee related Quality of life (QOL). KOOS is a valid and reliable psychometric assessment instrument that is often used in follow-up in patients in rehabilitation clinics as well as in clinical studies. This study assesses res [on mental using KOOS scale which contains an assessment of psychological factors.

However, in the matter of this research it is different in the aim to know the relationship of knowledge with mental responses and how to face injury. This research assessment was carried out with a test for knowledge so that later we could find out the corrective steps to improve the level of knowledge of athletes because this research relates significantly to their mental responses. The mental problem often faced by an athlete is anxiety.

Mental athletes when participating in a tournament event need to be prepared. In martial arts for example, an athlete's mental preparation can be started from the athletes himself in various ways, depending on each athlete [6]. Coaches, managers and officials can also help prepare athletes both physically and mentally. Coaches can provide physical preparation with regular training. In terms of mentality, it can be done by conducting out and athletes can often be included in various tournaments. Managers and officials can prepare the needs of the athletes. In addition, it can also provide motivation for athletes who will go down in the match. Motivation can help the athletes to relax, so that during the competition the athletes will be more maximal in dealing with their opponents [7]. Although various preparations have been made to solve problems, it does not guarantee that an athlete at the time of the tournament is free from the risks or real problem. This problem can reappear when an event is taking place, depending on how the athlete will response to the problem. Athletes can solve the problem by choosing to use approach strategy or avoidance strategy. Approach strategy is a cognitive effort to understand the causes of stress or stressors and efforts to deal with them by dealing with them. While avoidance strategy is a cognitive effort to deny or minimize stressors that arise in behavior by avoiding it. The ability of athletes to deal with problems or stressors can be seen when athletes are showing performance in matches [7,8]. Stress and anxiety can arise at any time in athlete's mental. In tournament's achievements, stressor and feeling pressure will always come and appear before the match or during the match. Tension or stress is pressure or something that feels pressing in someone. Moreover, stress is a dynamic condition where an individual is faced with opportunities, demands or resources related to what is desired by the individual and whose results are seen as uncertain and important. Stress can also be interpreted as the inability to overcome the threats faced by the mental, physical, emotional, and spiritual human beings, which at one time can affect the physical health of the human being. Thus, it can be interpreted that stress is a condition that puts pressure on an individual, so that the individual is unable to cope with threats or stressful conditions on him [9,10].

Stress is not negative at all. Stress also has a positive value. Positive stress is a situation or condition that can motivate and inspire person. In addition, positive effect of stress is a pleasant situation and is not considered a threat. In contrast, negative effect of stress is a condition that makes a person become angry,

tense, confused, anxious, feeling guilty, or overwhelmed [11,12]. The source of tension or stress is caused by several factors that come from within a person or from outside them. In the matter of athlete, the stress mentally that comes from within him, for example feeling scared, hesitate about his abilities, or feeling less exercise. Stress that come from other aspects, for example: the influence of spectators, coaches, families, or a match in foreign environment [13,14]. Athlete's anxieties and fears can generally be classified into several categories, namely: a) Fear of failing in a match. b) Fear of social consequences or the quality of his achievements. c) Fear of injury or other things that happen to him. d) Fear of physical aggression by both opponents and himself. e) Fear that his physical condition will not be able to complete his task or match properly Through our study fear in athletes is significantly related to his knowledge of sports injuries, with high level knowledge of sport injury, athletes have a better mental response to prevent and deal with sports injuries that occur. This study inline with a study which was mentioned their conclusion as undergraduate students with higher levels of leisure-time Physical Activity (LTPA) showed a better score on Emotional intelligence, specifically in emotional attention and emotional repair. However, these associations and the predictive power of LTPA regarding emotional attention and emotional repair were weak. Men engaged in more LTPA and occupational PA and had higher emotional clarity and emotional repair than women.

According to [15], limitations in this study should be considered, so that there is no bias in the use of research results. Besides, there were some weaknesses in the implementation of this research. Therefore, before the implications of this study were examined, it was necessary to first disclose the limitations and weaknesses. Due to the limitations of the researcher, not all factors that influence the mental response of athletes in dealing with injuries are examined. These confounding factors include a more specific mental response to anxiety, depression and other mood disorders.

#### IV. CONCLUSION

Based on the results of this research, it can be concluded that the level of knowledge among sports injury has a significant positive correlation with mental response in dealing with sports injuries, where students with high level of sport injury knowledge have the higher possibility of a good mental response in injury than students with the low-level of its knowledge.

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