



IDENTIFICATION OF SPORTS INJURIES IN FOOTBALL PLAYERS

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ABSTRAK

Penelitian ini merupakan penelitian deskriptif dengan metode survei. Penelitian ini bertujuan untuk mengetahui bagian tubuh dan jenis cedera yang sering terjadi pada Pemain Sepakbola BKMF FIKK UNM dengan jumlah sampel 30 orang dengan pengambilan sampel menggunakan teknik *sampling* jenuh dimana *sampling* jenuh merupakan teknik penentuan sampel bila semua anggota populasi digunakan sebagai sampel. Adapun teknik pengumpulan data pada penelitian ini adalah dengan memberikan angket kepada sejumlah responden dan responden mengisi angket, setelah itu angket di kembalikan kepada peneliti. Dari hasil analisis deskriptif dapat diketahui cedera pada bagian tubuh yang dominan terjadi pada Pemain Sepakbola BKMF FIKK UNM yaitu bagian tungkai dan kaki dengan persentase 53,11 %, kemudian bagian lengan dan tangan sebesar 27,55 %, bagian kepala 8,87 % , bagian tulang belakang sebesar 6,09 %, dan bagian badan sebesar 4,37 %. Adapun jenis cedera yang paling dominan terjadi pada Pemain Sepakbola BKMF FIKK UNM yaitu memar 27,54 %, kemudian sprain/strain sebesar 21,39 %, fraktur sebesar 17,51 %, dislokasi 13,90 %, lecet sebesar 10,70 %, Kram sebesar 6,68 % , dan jenis cedera kepala (pingsan) sebagai jenis cedera yang paling jarang dialami, yaitu sebesar 2,27 %.

Kata kunci: Identifikasi, Cedera, Olahraga, Sepakbola.

ABSTRACT

This research is a descriptive study with a survey method. This study aims to determine the body parts and types of injuries that often occur in BKMF FIKK UNM Football Players with a sample size of 30 people with sampling using saturated sampling techniques where saturated sampling is a sampling technique when all members of the population are used as samples. The data collection technique in this study was by giving questionnaires to several respondents and the respondents filled out the questionnaires, after which the questionnaires were returned to the researcher. From the results of the descriptive analysis, it can be seen that injuries to the dominant body parts that occur in BKMF FIKK UNM Football Players are the legs and feet with a percentage of 53.11%, then the arms and hands by 27.55%, the head 8.87%, the spine by 6.09%, and the body by 4.37%. The most dominant types of injuries that occur in BKMF FIKK UNM Football Players are bruises 27.54%, then sprains/strains 21.39%, fractures 17.51%, dislocations 13.90%, abrasions 10.70%, cramps 6.68%, and head injuries (fainting) as the type of injury that is least experienced, namely 2.27%.

Keywords: Identification, Injury, Sports, Football

PENDAHULUAN

Sport is a human activity that aims to achieve well-being that includes the physical and spiritual well-being of humans themselves (Hammado et al., 2020). The development of a person's physical, spiritual, and character potentials can be formed through games, competitions and sports matches. Sports activities aimed at achievement are divided according to their respective levels, from student level to club level (Sudirman et al., 2022). Achieving maximum achievement requires preparation in the form of training (Muslim et al., 2023). Training is a systematic sports activity over a long period (Burhanuddin et al., 2022), progressively and individually improved which leads to the characteristics of human physiological and psychological functions to achieve predetermined goals (Ishak et al., 2023).

Exercises carried out to achieve the desired performance certainly contain risks (E. C. Putri, 2020). The risk of sports activities is injury (Samsudin, 2018). Injury is an abnormality that occurs in the body that causes pain, heat, redness, and swelling, (Taufik Hidayat, Ramadi, 2016) and does not function properly in muscles, tendons, ligaments (Ilham et al., 2021), joints, or bones due to excessive activity or accidents (Ali and Bambang, 2009). According to Paul and Taylor (2002), there are 2 types of injuries



based on the time of occurrence, namely acute trauma and protracted syndrome. Acute trauma is an injury that occurs suddenly (Prastya et al., 2019), and protracted syndrome is a syndrome that begins with abnormal strength (Riyan Hidayatullah et al., 2021) at a low level but lasts repeatedly for a long time (Kamadi et al., 2019). Several factors cause injuries, namely: (1) internal factors including body posture (malalignment), excessive load, physical condition, muscle imbalance, incorrect movement coordination, and lack of warm-up (Drifanda et al., 2020)., (2) external factors including sports equipment, environmental conditions, body contact sports (Pratama et al., 2020) and (3) overuse due to excessive muscle use or too tired (I. R. R. Putri, 2019). The percentage results that allow injuries to occur in body contact sports are 45% consisting of rugby 20%, soccer 23% and judo 2%, non-body contact sports 16% consisting of tennis 9%, gymnastics 3.5%, athletics and weightlifting 11%, and 9% other sports (Hardianto, 1994).

Football is a sport full of physical contact. It is not surprising that some injuries occur due to "body contact" (Pasek et al., 2022). This mainly occurs during tackles (Amroellah & Santoso, 2022). From these physical contacts, the most common injuries are bruises and fractures (Ari Wibowo, Kurniawan, 2021). But it's not just physical contact that can cause injury. The forces that occur in muscle structures during activity, as mentioned above, can also cause indirect injuries. This usually occurs in the muscles, tendons, ligaments, joints, and bones (Mega Widya Putri et al., 2021). Meanwhile, indirect injuries usually occur either at the beginning or end of the match. This is due to errors in warming up (or even not warming up), poor flexibility, or fatigue factors. Apart from physical contact and indirect injuries, other factors that cause injury are due to excessive load, or repetitive load (Fahrizqi et al., 2021). This type of injury is also caused by errors during training, biomechanical abnormalities, poor sports equipment (shoes) or fields (Yuliawan & Indrayana, 2021). Errors in training include warming up, excessive training load, too long training duration, frequency or intensity of training, and errors in injury rehabilitation (Sahabuddin, 2022). Meanwhile, abnormalities in biomechanics include different leg lengths between the right and left feet, inflexible soft tissue (muscles and tendons), biomechanical misalignment, and joint stiffness (Ita et al., 2022). Problems with match equipment are problems that occur in vibration damping and grip (too tight or too loose) (Juliansyah et al., 2022). The field can also be a cause of injury. Some things that affect the quality of the field are the type of surface, the slope of the field, and the hardness of the field. Metatarsal, fibula, and shin injuries are the focus of injuries caused by field quality (Ilahi et al., 2022).

METODE

This research is a descriptive study with a survey method. In this study, the researcher wants to know what injuries and types of injuries occur in BKMF FIKK UNM Football Players using a questionnaire. The population in this study were all BKMF FIKK UNM Football Players totaling 30 people. This study used saturated sampling. Saturated sampling is a sampling technique in which all members of the population are used as samples. So the sample in this study was 30 BKMF FIKK UNM Football Players.

Operationally, the identification of sports injuries to body parts and types of injuries is the process of collecting as much data as possible about injuries. The variables in this study are injuries to Football Players. The injuries in question are things related to injuries when doing football activities, both in training and in matches, defined as follows:

1. Mild head injury is an injury caused by direct impact, for example, falling with a head hit or collision between players, this can cause: cuts, dizziness, nausea, vomiting, and fainting.
2. Bruises are damaged tissue under the skin, and small blood vessels rupture. This is indicated by: calor (hot), rubor (red), dolor (pain), and tumor (swelling).
3. Sprains and strains are injuries that occur to ligaments and tendons. The signs are pain when moved, pain on touch, decreased function, and decreased strength.
4. Dislocation is the release of a joint from its proper place. The signs are: bones shift from the joint, change in shape, swelling (tumour), and abnormal function.



- 5. A fracture is a condition of cracking, breaking or breaking, either in bones or cartilage. This is indicated by changes in skin colour, changes in shape, pain, and swelling.
- 6. Muscle cramps are continuous contractions experienced by a muscle or group of muscles and result in pain and soreness in the muscles.

Research instruments are tools or facilities used by researchers in collecting data so that their work is easier and the results are better, in the sense that they are more accurate, complete, and systematic so that they are easier to process (Suharsimi Arikunto 2006: 160). According to Sutrisno Hadi (1991: 7), three steps must be taken in compiling an instrument, the three steps are:

- 1. Defining the Construct; Defining the construct is a stage that aims to provide a definition of the meaning of the construct to be studied so that later there will be no deviation from the objectives to be achieved in this study.
- 2. Investigating Factors; Investigating factors is a stage that aims to mark the factors that are suspected and then believed to be components of the construct to be studied. Giam, C.K. and Teh. K.C (1992: 202-241) argues that injury factors include: head injuries, indicators of concussion, bruising, bleeding, fractures; spinal injuries, indicators of dislocation, fracture, sprain/strain; body injuries, indicators of bruising, fracture, cramps; arm and hand injuries, indicators of bruising, sprain/strain, dislocation, fracture; leg and foot injuries, indicators of bruising, sprain/strain, dislocation, fracture, bleeding, cramps, abrasions.
- 3. Compiling Question Items; The third step is to compile the questionnaire items based on the factors that make up the construct. The questionnaire items must be an elaboration of the content of the factors. To compile the questionnaire items, a questionnaire grid is first made. The questionnaire trial grid can be seen in Table 1. After the questionnaire trial grid has been tested for validity, the questionnaire grid can be used for research. The research questionnaire grid can be seen in Table 1 as follows:

Table 1. Research Questionnaire Grid

Factor	Indicator	Number Item	Total
Head injury	a. Head injury	1	4
	b. Bruise	2,3	
	c. Fracture	4	
Body part injury	a. Bruise	5	3
	b. Cramps	6	
	c. Fracture	7	
Spinal injury	a. Dislocation	8	3
	b. Sprain/Strain	9,10	
Arm and hand injuries	a. Bruise	11,12,13,14	13
	b. Abrasions	15,16	
	c. Sprains	17,18	
	d. Dislocations	19,20,21	
	e. Fractures	22,23	
Cedera bagian tungkai dan kaki	a. Bruise	24,25,26,27	20
	b. Cramp	28,29	
	c. Abrasions	30,31	
	d. Sprain/Strain	32,33,34,35	
	e. Dislocation	36,37,38	
	f. Fracture	39,40,41,42,43	
Total		43	43

In this study, the technique used to collect data using a questionnaire. This questionnaire technique is used to find out what injuries and types of injuries occur in BKMFF FIKK UNM Football Players. The method of data collection is as follows: (1) The researcher gives a questionnaire to several respondents, (2) The respondents fill out the questionnaire given, and (3) The questionnaire is returned to the researcher after being filled out by the respondents.



The instrument trial is intended to determine whether the instrument that is prepared is truly good. The good or bad of the instrument is indicated by its validity and reliability. The analysis of the instrument trial includes validity and reliability. To determine the level of validity of the instrument in this study, the person product moment correlation formula can be used as follows:

$$r_{xy} = \frac{\sum(X-\bar{X})(Y-\bar{Y})}{\sqrt{(\sum(X-\bar{X})^2)(\sum(Y-\bar{Y})^2)}}$$

Item reliability analysis is only carried out on valid items (which are considered to meet the criteria of the question items), not all items that have not been tested for validity. According to Suharsimi Arikunto (2006:276) to state the reliability of the instrument, the interpretation of the correlation coefficient is used as follows:

- Between 0.800 to 1.00: High
- Between 0.600 to 0.800: Enough
- Between 0.400 to 0.600: Slightly Low
- Between 0.200 to 0.400: Low
- Between 0.000 to 0.200: Very low (not correlated)

Determining the respondent's perception predicate by calculating the percentage. To calculate the percentage included in the category in each aspect, the Anas Sudijono formula (2005: 40) is used as follows:

$$P = \frac{F}{N} \times 100$$

RESULTS And DISCUSSION

Description of Body Part Injuries

1. Head Injury

Head injuries consist of head injuries, bruises, and fractures. The percentage of head injury achievements is presented in Table 2 as follows:

Table 2. Head Injury Questionnaire Results Data

No	Ever had an injury			Never
	Weight	Medium	Light	
1	0	1	16	13
2	1	3	17	9
3	0	0	18	12
4	0	0	11	19
Total	1	4	62	53
%	0.83	3.33	51.67	44.17

Based on the table above, it can be seen that the percentage of head injuries is as follows: (1) Players who have experienced serious head injuries reached 0.83% (2) Players who have experienced moderate head injuries reached 3.33% (3) Players who have experienced minor head injuries reached 51.67% (4) Players who have never experienced head injuries reached 44.17%. Head injuries occur due to collisions with opponents or facilities available on the field.

2. Body Part Injury

Injuries to the body parts consist of cramps, bruises and fractures. The percentage of achievement of injuries to the body parts can be seen in Table 3 as follows:

Table 3. Body Part Injury Questionnaire Results Data

No	Ever had an injury			Never
	Weight	Medium	Light	
5	1	0	14	15



6	1	0	9	20
7	1	2	5	22
Total	3	2	28	57
%	3.33	2.22	31,11	63.33

Based on the table above, it can be seen that the percentage of body injuries is as follows: (1) Players who have experienced serious injuries to the body reached 3.33% (2) Players who have experienced moderate injuries to the body reached 2.22% (3) Players who have experienced minor injuries to the body reached 31.11% (4) Players who have never experienced injuries to the body reached 63.33%. Body injuries occur due to collisions between players (body contact) or collisions with equipment (facilities) when fighting for the ball.

3. Spinal Injury

Spinal injuries consist of dislocations and strains/sprains. The percentage of spinal injuries is presented in the following table 4:

Table 4. Spinal Injury Questionnaire Results Data

No	Ever had an injury			Never
	Weight	Medium	Light	
8	1	0	9	20
9	1	3	17	9
10	1	0	14	15
Total	3	3	40	44
%	3.33	3.33	44.44	48.89

Based on the table above, it can be seen that the percentage of spinal injuries is as follows: (1) Players who have experienced serious spinal injuries reached 3.33% (2) Players who have experienced moderate spinal injuries reached 3.33% (3) Players who have experienced minor injuries reached 44.44% (4) Players who have never experienced spinal injuries reached 48.89%. According to Giam, C.K. and Teh. K.C (1993: 206) spinal injuries are usually caused by a direct impact, for example falling.

4. Arm and Hand Injuries

Injuries to the arms and hands consist of bruises, sprains/strains, dislocations, and abrasions. The percentage of injuries to the arms and hands is presented in the following table 5:

Table 5. Data from the Arm and Hand Injury Questionnaire

No	Ever had an injury			Never
	Weight	Medium	Light	
11	0	0	14	16
12	1	2	19	8
13	0	1	21	8
14	0	0	14	16
15	1	2	19	8
16	0	2	17	11
17	0	1	21	8
18	0	0	21	9
19	0	0	11	19
20	0	0	10	20
21	0	0	11	19
22	0	0	11	19
23	0	0	9	21
Total	2	8	198	182
%	0.52	2.05	50.77	46.67

Based on the table above, it can be seen that the percentage of injuries to the arms and hands is as follows: (1) Players who have experienced serious injuries to the arms and hands reached 0.51% (2) Players who have experienced moderate injuries to the arms and hands reached 2.05% (3) Players who



have experienced minor injuries to the arms and hands reached 50.77% (4) Players who have never experienced injuries to the arms and hands reached 46.67%.

5. Foot and Leg Injuries

Leg and foot injuries consist of bruises, sprains/strains, fractures, dislocations, and abrasions. The percentage of leg and foot injury outcomes is presented in Table 6 below.:

Table 6. Data from the Foot and Leg Injury Questionnaire

No	Ever had an injury			Never
	Weight	Medium	Light	
24	0	1	15	14
25	1	2	20	7
26	0	2	17	11
27	0	1	21	8
28	0	0	21	9
29	0	0	19	11
30	0	7	12	11
31	0	1	19	10
32	1	2	17	10
33	0	2	20	8
34	0	1	15	14
35	1	2	20	7
36	0	2	17	11
37	0	1	21	8
38	0	0	21	9
39	0	0	19	11
40	0	7	12	11
41	0	1	19	10
42	1	2	17	10
43	0	2	19	9
Jumlah	4	36	361	199
%	0.67	6.00	60.17	33,17

Based on the table above, it can be seen that the percentage of leg and foot injuries is as follows: (1) Players who have experienced serious injuries to the legs and feet reached 0.67% (2) Players who have experienced moderate injuries to the legs and feet reached 6.00% (3) Players who have experienced minor injuries to the legs and feet reached 60.17% (4) Players who have never experienced injuries to the arms and hands reached 33.17%. The legs and feet are the support during exercise and are the most frequently used body parts in football, so it is not uncommon for this part to experience injuries. Collisions, dislocations, and lack of warm-up often occur in football players, while players who do not experience injuries, due to good preparation and high discipline can minimize the occurrence of injuries.

Description of Injury Type

1. Head Injury (Fainting)

The type of head injury is usually experienced in head injuries, so it can cause fainting. The percentage of head injury achievements can be seen in Table 7 as follows:

Table 7. Head Injury Type Questionnaire Results Data

Item Number	Ever had an injury			Never
	Weight	Medium	Light	
1	0	1	16	13
Jumlah	0	1	16	13
%	0	3.33	53.33	43,33

Based on the table above, it can be seen that no players have ever experienced a type of severe head



injury, while the percentage of moderate head injuries reached 3.33%, mild 53.33% and the percentage of players who have never experienced a type of head injury reached 43.33%.

2. Bruises

Types of bruises commonly experienced are the head, body, arms and hands, and legs and feet. The percentage of types of bruises can be seen in the following Table 8:

Table 8. Questionnaire Results in Data on Types of Bruise Injuries

Item Number	Ever had an injury			Never
	Weight	Medium	Light	
2	1	3	17	9
3	0	0	18	12
5	1	0	14	15
11	0	0	14	16
12	1	2	19	8
13	0	1	21	8
14	0	0	14	16
24	0	1	15	14
25	1	2	20	7
26	0	2	17	11
27	0	1	21	8
Total	4	12	190	124
%	1.21	3.64	57.58	37.58

Based on the table above, the percentage of types of bruises can be seen as follows: (1) Players who have experienced severe bruises reached 1.21%. (2) Players who have experienced moderate bruises reached 3.64%. (3) Players who have experienced light bruises reached 57.58%. (4) Players who have never experienced bruises reached 37.58%.

3. Fracture

The types of fracture injuries commonly experienced are the head, body, arms and hands, and legs and feet. The percentage of types of fracture injuries can be seen in the following Table 9:

Table 9. Fracture Injury Type Questionnaire Results Data

Item Number	Ever had an injury			Never
	Weight	Medium	Light	
4	0	0	11	19
7	1	2	5	22
22	0	0	11	19
23	0	0	9	21
39	0	0	19	11
40	0	7	12	11
41	0	1	19	10
42	1	2	17	10
43	0	2	12	9
Total	2	14	115	132
%	0.76	5.32	43.72	50.19

Based on the table above, the percentage of fracture injury types can be seen as follows: (1) Players who have experienced severe fracture injuries reached 0.76%. (2) Players who have experienced moderate fracture injuries reached 5.32%. (3) Players who have experienced minor fracture injuries reached 43.72%. (4) Players who have never experienced fracture injuries reached 50.19%.

4. Cramps

Types of cramp injuries commonly experienced by the body legs and feet. The percentage of types of cramp injuries can be seen in Table 10 below:

Table 10. Data from the Cramp Injury Type Questionnaire



Item Number	Ever had an injury			Never
	Weight	Medium	Light	
6	1	0	9	20
28	0	0	21	9
29	0	0	19	11
Jumlah	1	0	49	40
%	1.11	0	54.44	44.44

Based on the table above, the percentage of types of cramp injuries can be seen as follows: (1) Players who have experienced severe cramp injuries reached 1.11%. (2) None of the players experienced moderate cramp injuries. (3) Players who have experienced mild cramp injuries reached 54.44%. (4) Players who have never experienced fracture injuries reached 44.44%.

5. Dislocation

The percentage of dislocation injury types can be seen in Table 11 below:

Table 11. Data from the Results of the Dislocation Injury Type Questionnaire

Item Number	Ever had an injury			Never
	Weight	Medium	Light	
8	1	0	9	20
19	0	0	11	19
20	0	0	10	20
21	0	0	11	29
36	0	2	17	11
37	0	1	21	8
38	0	0	21	9
Jumlah	1	3	100	116
%	0.45	1.36	45.45	52.73

Based on the table above, the percentage of types of dislocation injuries can be seen as follows: (1) Players who have experienced severe dislocation injuries reached 0.45%. (2) Players who have experienced moderate dislocation injuries reached 1.36%. (3) Players who have experienced mild dislocation injuries reached 45.45%. (4) Players who have never experienced dislocation injuries reached 52.73%.

6. Sprain/Strain

Types of sprain/strain injuries are usually experienced in the spine, arms and hands, and legs and feet. Players who experience sprain/strain injuries are usually caused by sudden changes in the direction of movement. The percentage of types of sprain/strain injuries can be seen in the following Table 12:

Table 12. Sprain/Strain Injury Type Questionnaire Data

Item Number	Ever had an injury			Never
	Weight	Medium	Light	
9	1	3	17	9
10	1	0	14	15
17	0	1	21	8
18	0	0	21	9
32	1	2	17	10
33	0	2	20	8
34	0	1	15	14
35	1	2	20	7
Total	4	11	145	80
%	1.67	4.58	60.42	33.33

Based on the table above, the percentage of types of sprain/strain injuries can be seen as follows: (1) Players who have experienced severe sprain/strain injuries reached 1.67%. (2) Players who have experienced moderate sprain/strain injuries reached 4.58%. (3) Players who have experienced mild



sprain/strain injuries reached 60.42%. (4) Players who have never experienced sprain/strain injuries reached 33.33%.

7. Scratches

Types of abrasion injuries commonly experienced by the arms and hands, as well as the legs and feet. The percentage of types of abrasion injuries can be seen in Table 13 below:

Table 13. Data from the Results of the Abrasions Type Questionnaire

Item Number	Ever had an injury			Never
	Weight	Medium	Light	
15	1	2	19	8
16	0	2	17	11
30	0	7	12	11
31	0	1	19	10
Total	1	12	67	40
%120	0.83	10	55.83	33.33

Based on the table above, the percentage of types of abrasion injuries can be seen as follows: (1) Players who have experienced serious abrasion injuries reached 0.83%. (2) Players who have experienced moderate abrasion injuries reached 10%. (3) Players who have experienced minor abrasion injuries reached 55.83%. (4) Players who have never experienced abrasion injuries reached 33.33%.

Comparison of Each Body Part Injury

Injuries experienced by soccer players on the FREEDOM FC Makassar soccer team consist of injuries to the head, body, spine, arms and hands, and legs and feet. The comparison of each body part injury can be seen in Table 14 as follows:

Table 14. Comparison of Body Part Injuries

No	Body Part Injury	Total			Percentage (%)
		Weight	Medium	Light	
1	Head	1	4	62	8.87
2	Body	3	2	28	4.37
3	Spine	3	3	40	6.09
4	Arms and hands	2	8	198	27.55
5	Legs and feet	4	36	361	53.11

Based on the table above, it can be seen that the injuries to the dominant body parts that occur in BKMFF FIKK UNM Football Players are the legs and feet with a percentage of 53.11%, then the arms and hands at 27.55%, the head at 8.87%, the spine at 6.09%, and the body at 4.37%.

Comparison of Each Type of Injury

The types of injuries experienced by BKMFF FIKK UNM Football Players consist of fainting, bruises, fractures, cramps, dislocations, sprains/strains, and abrasions. The comparison of each type of injury can be seen in Table 15 as follows:

Table 15. Comparison of each type of injury

NO	Types of Injuries	Total			Percentage (%)
		Weight	Medium	Light	
1	Pingsan	0	1	16	2.27
2	Memar	4	12	190	27.54
3	Fraktur	2	14	115	17.51
4	Kram	1	0	49	6.68
5	Dislokasi	1	3	100	13.90
6	Sprain/strain	4	11	145	21.39
7	Lecet	1	12	67	10.70

Based on the table above, the dominant types of injuries to the body parts are bruises at 27.54%,



then sprains/strains at 21.39%, fractures at 17.51%, dislocations at 13.90%, abrasions at 10.70%, cramps at 6.68%, and head injuries (fainting) as the type of injury that is least experienced, namely 2.27%.

Discussion

Injury To Body Part

Injuries that occur in body parts are generally caused by excessive frequency of use of the body part during training and matches. The explanation of each body part that experiences injury is as follows:

a. Head Injury

The percentage of head injuries when compared to other injuries is quite rare, reaching 8.87%. Players who experience head injuries are usually caused by collisions with other players or facilities on the field, as explained by Mary E. Muscari (2005: 417) head injuries can range from minor collisions to severe damage to the head. It was also revealed by Giam, C.K. and Teh. K.C. (1993) head injuries are usually caused by direct collisions, for example falling with the head hitting and the head hitting a hard object, while according to Hardianto Wibowo (1995), head injuries can cause decreased consciousness or fainting for several hours. If you experience a concussion, you will experience symptoms such as nausea (vomiting), and dizziness (headache), and the sufferer is unconscious (fainting). The term head injury covers all disorders from minor lacerations to diffuse brain injuries.

b. Body Part Injury

The percentage of injuries to the body part reached 4.37%. This means that when compared to injuries to other parts, injuries to this body part are very rarely experienced by BKMF FIKK UNM Football Players. The results of the study show that the injuries that occur to the body part are chest bruises and stomach cramps. Players who experience stomach cramps are caused by a lack of warm-up and stretching, as revealed by Hardianto Wibowo (1995) that warm-up is done in two stages, namely: (1) Stretching muscles, joints and ligaments, then followed by small gymnastic movements and jogging. (2) The second stage, is movements that are appropriate for each sport, for example, stretching the iliotibial band to stretch the stomach muscles.

Players who experience injuries to the body are usually caused by collisions between the body and the body of other players, falls, and overuse, as revealed by Giam, C.K. and Teh. K.C (1993) injuries to the body (chest and stomach) that are often found in sports are a feeling of being stabbed in the stomach, and the construction of the chest and stomach. The percentage that shows that players do not experience this injury too often indicates that players have good technical and timing skills when they have to use body balance or when they fall. Coaches must also position athletes in a ready position by training strength, flexibility and endurance because with regular and programmed training, injuries can be prevented, and they can last longer in matches without fatigue.

c. Spinal Cord Injury

The percentage of spinal injuries reached 6.09%. This means that compared to other body parts, injuries to this body part are quite rare for BKMF FIKK UNM Football Players. The results of the study show that injuries that occur in the spine are dislocations and sprains/strains. Players who experience spinal injuries are usually caused by falls and collisions during training or matches, as revealed by Giam, C.K. and Teh. K.C. (1993) spinal injuries are usually caused by direct collisions, such as falling on the spine. This indicates that when players are usually susceptible to such collision injuries. Anatomically, the back of the body is not protected by cartilage, so it is easily injured. Injuries occur because players lose their balance when they fall or move, resulting in dislocation injuries or joint pain. The coach should provide direction for his athletes on how to move the correct body position in basic soccer training and the correct movements when falling. The coach must also know whether his athletes are in good health or not. Although it cannot avoid injury, it can minimize the occurrence of injury.

d. Arm and Hand Injuries

The percentage of injuries to the arms and hands reached 27.55%. This means that compared to other body parts, injuries to the arms and hands are quite common in BKMF FIKK UNM Football Players. The results of the study show that injuries that occur to the arms and hands are bruises, abrasions, dislocations and sprains/strains. Players experience injuries to this part of the body when in contact with the ball, falling or excessive muscle use, as explained by Giam, C.K. and Teh. K.C. (1993) injuries to the



arms and hands are usually caused by falling or excessive use of the muscles of the arms and hands.

e. Leg and Foot Injuries

The percentage of injuries to the legs and feet reached 53.11%. This means that injuries to this part of the body are the most commonly experienced by BKMF FIKK UNM Football Players. Players who experience injuries to the legs and feet because this part of the body is the most dominant part used in sports, especially in football, so the risk of injury is also high. As expressed by Giam, C.K. and Teh. K.C (1993) injuries to the legs and feet are caused by the muscles of the legs and feet getting sudden excessive stress or shocks, for example, landing from jumping, kicking, overuse, impact, and friction.

Types of injuries to body parts

Types of Injuries that occur are generally caused by the frequency of use of body parts during training and matches. The explanation of each type of injury is as follows:

a. Head Injury

The percentage of head injury types reached 2.27%. This means that it is very rare for players to experience this type of injury. Players who experience head injuries are usually caused by a fairly hard impact, such as a head impact or other body parts. A head that is hit can disrupt the cerebellum so that balance and consciousness are lost, while according to Hardianto Wibowo (1995), the symptoms of the brain are: nausea (vomiting), dizziness (headache), and the sufferer is unconscious (fainting).

b. Bruise

The percentage of bruise injury types reached 27.54%. This means that compared to other injuries, this type of injury often occurs in BKMF FIKK UNM Football Players. According to Iskandar Junaidi (2011), bruises are a sign that blood vessels under the skin have ruptured but the blood cannot flow out so that it collects under the skin. The bleeding appears as a soft, blue lump in the part that was hit. As explained by Morgan (1993) bruises are injuries caused by impact or blows to the skin. The tissue under the surface of the skin is damaged and small blood vessels rupture so that blood and cellular fluid seep into the surrounding tissue. An example of a movement that can cause bruising is a collision when fighting for a ball, the elbow accidentally hits the chest.

c. Fracture

The percentage of fracture injury types reached 17.57%. This means that it is quite rare for players to experience this injury. Usually, players who experience this injury are caused by a very severe impact, such as an impact on the hand, foot, or other body parts. As revealed by Kartono M, (2001) fractures always occur in every accident due to or hard impact, also explained by Hardianto Wibowo (1995) a fracture is a condition in which the bone experiences a crack, breaks or fractures, both bones and cartilage. The form of a fracture (fracture) can be just a crack or experience until it is shattered into pieces.

d. Cramps

The percentage of cramp injuries reached 6.68%. This means that players rarely experience this type of injury. Muscle cramps occur due to fatigue or lack of fluids and electrolytes (dehydration), especially a lack of potassium and sodium (Jati Wijaya, 2009). Muscle cramps are continuous contractions experienced by muscles or a group of muscles and cause pain. According to Hardianto Wibowo (1995: 31), the cause of cramps is muscles that are too tired, lack of warming up and stretching, and impaired blood circulation to the muscles which causes spasms.

e. Dislocation

The percentage of dislocation injury types reached 13.90%. This means that this type of injury is quite rare in BKMF FIKK UNM Football Players. Players who experience this injury are usually caused by impact or falls that result in joint displacement. Dislocation or slipped joints are conditions where the joint is released from its joint location or where the joint should be. A dislocation occurs because it slips from its place, so the joint becomes stiff, cannot be moved, and also feels painful (Kartono M, 1980).

f. Sprain/strain

The percentage of bleeding injury types reached 21.39%. This means that this type of injury is quite often experienced by BKMF FIKK UNM Football Players. Players who experience sprain/strain injuries are usually caused by sudden changes in the direction of movement. Bambang Priyonoadi (2006) strain is damage to a part of the muscle or tendon due to excessive use or excessive stress. Which is clarified by



Giam, C.K. and Teh. K.C Teh (1992) strain is damage to a part of the muscle or tendon due to excessive use or excessive stress, and sprain is an injury to the joint, with a tear in the ligament, this occurs due to sudden excessive stress or repeated excessive use of the joint. For example, if a player changes direction suddenly, but is not balanced with agility and the correct position, it can cause the joint to be pulled, causing a sprain/strain.

h. Scratches

The percentage of bleeding injury types reached 10.70%. When compared to other types of injuries, this type of injury is quite rare in BKMFFIKK UNM Football Players. Players who experience abrasions are usually caused by collisions with other players and friction with the field due to falling. According to Kartono Muhamad (2008), abrasions are when the surface of the skin is peeled off due to friction with a hard and rough object. Clarified by Giam, C.K. and Teh. K.C. (1993) an abrasion is a discontinuity of the skin and the underlying tissue that causes bleeding and can then become infected or an abrasion is an injury that occurs when the skin is scratched which causes the skin to peel off. An example of a movement that can cause abrasions is friction on the knee when falling causing abrasions.

CONCLUSION

The most common body part injury factors in BKMFFIKK UNM Football Players are the legs and feet with a percentage of 53.11%, then the arms and hands at 27.55%, the head at 8.87%, the spine at 6.09%, and the body 4.37%. The types of injuries experienced most often by BKMFFIKK UNM Football Players are bruised 27.54%, then sprains/strains 21.39%, followed by fractures 17.51%, dislocations 13.90%, abrasions 10.70%, cramps 6.68%, and fainting as the least common type of injury, which is 2.27%.

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JOKER

JURNAL OLAHRAGA KEBUGARAN DAN REHABILITASI

Volume 4, Nomor 2, Bulan Oktober Tahun 2024



E-ISSN: 2798-0928 dan P-ISSN: 2776-3927

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Yuliawan, E., & Indrayana, B. (2021). Sosialisasi Sport Massage Untuk Pencegahan dan Rehabilitasi Cedera Olahraga Pada Siswa SMP 1 Muhammadiyah Kota Jambi. *Jurnal Pengabdian kepada Masyarakat Bina Darma*, 1(2), 164–172. <https://doi.org/10.33557/pengabdian.v1i2.1497>