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## Survey of Knowledge on Injury Treatment in Students of State High School of Sports East Java

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### ABSTRACT

**Introduction:** Students in educational settings, especially at Sports State High School, frequently experience injuries due to various field types (cement, grass, sand) with different risks. It is essential for students to understand these risks to enhance their safety during training. **Purpose:** This study aimed to evaluate the injury management knowledge of students at SMA Negeri Sports East Java. **Methods:** A descriptive quantitative approach was used, with a 31-item multiple-choice questionnaire adapted from previous research. The entire population of 78 students was sampled. **Results:** Analysis showed that all students from classes XI MIPA 1, XI MIPA 2, XI IPS 1, and XI IPS 2 had a "low" level of knowledge about injury management. Specifically, 92.3% of students were "deficient," and 25.6% had "high" knowledge. Overall, students' understanding of first aid for sports injuries was low. **Conclusions:** The results suggest inadequate education on first aid for injuries, with most students possessing limited knowledge in this area.

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## 1. INTRODUCTION

Safety and comfort is the desire of every human being because the arrival of danger, no one knows and cannot predict its appearance. Therefore, body health must be maintained as it should be; if the body's immune system weakens, then a person's safety will also be affected (Batubara, 2021). Considering that humans carry out walking, running, climbing, and driving activities, such as learning activities at school, safety is an essential thing to prioritize. Safety is a state of security in the sense of being comfortable in terms of social, spiritual, physical, financial, emotional, occupational, political, psychological, or educational conditions that can keep you away from threats (Morrey et al., 2020). However, many people still ignore the importance of maintaining safety in their activities.

The factors that affect safety are two factors that affect safety, including external factors, for example, the environment, such as field conditions, and internal, for instance, awareness emotional if we panic too much, serious injury will occur (Qonitah, 2017). Humans neglect vigilance in maintaining safety due to a lack of insight into anticipating and handling injuries. Injury is damage to one of the not standard bodies, for example, pain, fractures, swelling, etc., which hinders the function of these body parts (Mallas et al., 2021). The definition of sports injury is an injury experienced by an athlete during sports training or competition; it can hinder an athlete's activity (Artanayasa & Putra, 2014). After knowing the problems that occur, it is essential to provide a briefing to children from a young age because risks can threaten safety and human life when carrying out activities. Therefore, everyone is expected to understand first aid in the event of an accident.

First aid is the most important thing to do when the condition is critical. First aid is the provision of immediate help to someone who is injured (Toccalino et al., 2022). Therefore we must anticipate ourselves to avoid dangers that occur, for example, such as house fires, so everyone close to the location must rush out and save items that can be brought and call the fire department to help put out the fire. Unfortunately, some of these incidents did not escape from any factors resulting in injury. Here are some factors for injuries; there are two types of damage, namely external and internal. Extrinsic injury factors are injuries that occur due to external influences such as abrasions, bruises, etc. As for intrinsic, namely damages that come from oneself, such as tearing muscles and joints (Pasaribu et al., 2022). There are various ways to avoid injury from these factors, including wearing jewelry, glasses (which can be replaced with a lens case), and warming up to flex muscles (Haqqy et al., 2021). From this incident, it is hoped that everyone will learn about it because the only savior is ourselves for ways to disseminate information about how to respond to injuries in the community to minimize severe injuries to these victims.

Injuries will also cause sufferers to experience obstacles in their daily activities. In sports, injury is common for athletes, and even international athletes have experienced injuries. Injuries that often occur in athletes include minor, severe, and even fatal injuries to death (Subrata et al., 2022). These injuries also have their treatment, and there are even special tools to measure them. The tools used to treat injuries include first aid kits, stretchers, rigid collar support (for neck injuries), etc. (Artanayasa & Putra, 2014). Likewise, there are still many injuries experienced by students in education. As is the case at the Sports State High School, there are various kinds of fields, some of which are made of cement, grass, sand, etc.; each area has different injuries from one student to another; therefore, students must know more about the impact and risks from the field so that students can be more anxious when carrying out the training program. At the school there are two kinds of activities, namely in the morning

before school routine training is carried out for 2 hours after that at 08.00- 12.00 academic learning, then continued training at 15.00-17.00. The school has health facilities, including UKS, a massage team to treat injuries, and a clinic for minor injuries. Judging from the bustling activity, students are expected to gain more knowledge about handling injuries. Some of the things above can be concluded that students at senior high school Sports need knowledge of damage because learning about the first treatment of injuries experienced by students is minimal. Based on this description, the researcher desires to conduct a research entitled Survey of Knowledge About Injury Management in East Java Sports High School Students.

## 2. METHODS

This research is a descriptive study that uses a quantitative approach regarding the level of knowledge of injury management in class XI students at SMA Negeri Sports East Java. Descriptive research aims to find data from objects that are currently happening, and then the data will be described (Cheron et al., 2020). This research uses a survey method. The survey method is a method that is carried out by interviewing related objects that are informative to the current phenomena (Isamy, 2019). Researchers chose the survey method because it can minimize time and is also easy to use, and is very suitable for this article.

### Participants

The researcher used a population of class XI SMAN Sports East Java with 78 students. The sample is part or choice of part of the population (Isamy, 2019). Because the total population is less than 100, the sample is taken as a whole from the total population, which refers to the actual sampling technique; that is, if the total population is less than 100, the entire population is taken to be a member of the sample.

### Instruments

The researcher uses a method of processing data with the selected instrument in the form of multiple-choice test questions; the scores obtained after taking the test then the data will be processed and analyzed using descriptive statistics. Descriptive statistics is the management of data in statistics by describing the existing phenomena (Dhani & Utama, 2017). In taking the data that will be examined using an instrument in the form of a multiple-choice test, which was adapted from "Asmarita, 2020" research conducted by several 31 kinds of questions that have been tested for reliability and validity and are by the reliability testing criteria that show Cronbach alpha value is 0.936, which is  $> 0.60$ . Hence, it is appropriate if it is used for research. The grid of test questions is arranged based on indicators that include several items, namely: injury prevention, injury management, and injury treatment.

### Statistical analysis

The data analysis technique used by the researcher is a descriptive analysis that uses statistical data to analyze research data, which aims to determine the level of knowledge of class XI students at SMAN Sports East Java 2022 in handling injuries. The data analysis technique is a technique of analyzing the results of the data that has been collected (Satria, 2014). The data obtained is displayed in the form of a frequency table and then grouped and presented in the form of a histogram. The grouping of students' knowledge levels is divided

into four groups, namely deficient, low, high, and the last is very high. The group scale can be seen in the following table:

**Table 1.** Group Scale.

No	Norm	CRITERION
1	0 – 5	Very Low
2	6 – 10	Low
3	11 – 15	High
4	16 -20	Very High

After that, it can be interpreted as a study of the problems proposed in the percentage model. For example, to measure the percentage of the data from the table above obtained from the test questions, if it is true, it gets a score of 1; if it is wrong, it gets a value of 0.

$$\text{Percentage} = \frac{\text{Number of Correct values}}{\text{Number of questions}} \times 100\%$$

### 3. RESULTS

The research data that has been collected is then analyzed using SPSS. The complete results can be seen in the following Tabel 2.

**Table 2.** Description of Statistics.

N	78
Mean	8,42
Median	9,00
Mode	9
Std. Deviation	0,09
Minimum	6
Maximum	4

From the results of the data in table 2. it can be seen the results of the data as a whole with a mean of 8.42 Std. deviation of 0.97.

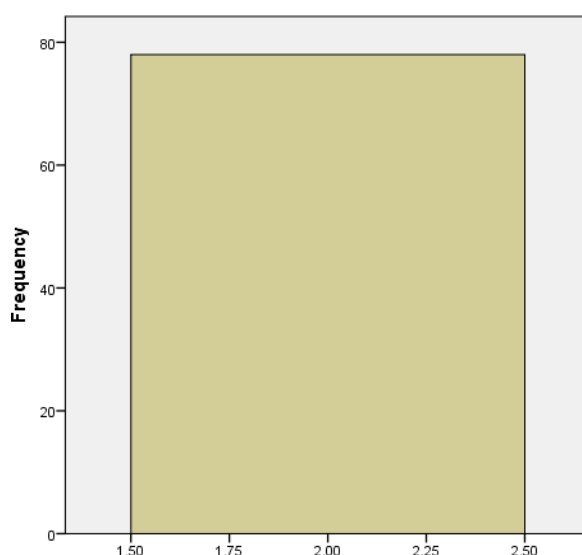
#### Injury Prevention Factors

Knowledge of students in class XI IPS 1, XI IPS 2, XI MIPA 1, and XI MIPA 2 at senior high school Sports East Java. The frequency distribution table is based on injury prevention factors, as follows:

**Table 3.** Frequency Distribution of Injury Prevention Factors

Criterion	f	p
Very high	-	-
High	-	-
Low	78	100,0
Very low	-	-
Total	78	100,0

As for the display in the form of a bar chart, the knowledge of class XI students on first aid for injuries in the Sports High School environment are:

**Figure 1.** Knowledge Bar Chart Based on Injury Prevention Factors prevention category

The table and bar chart above shows that the knowledge of XI IPS and XI MIPA students at SMAN Sports East Java based on injury prevention factors is in the "low" category with a frequency of 100% (78 students).

### Injury Management Factor

Knowledge of students in class XI MIPA and XI IPS at SMAN Sports East Java. The knowledge distribution table based on injury prevention factors is as follows:

**Table 3.** Frequency Distribution of Injury Treatment Factors

Category	f	p
Very High	-	-
High	20	25,6
Low	56	71,8
Very Low	2	2,6
Total	78	100,0

If the table is displayed in the form of a bar chart, then the knowledge of class XI MIPA and XI IPS students on handling injuries is as Figure 2. Based on the bar chart above, it can be concluded that there are categorization factors for handling injuries, including the category "very high" 0% (0 students). the "high" category is 25.6% (20 students), the "low" category is 71.8% (56 students), and the "very low" category is 2.6% (2 students). Therefore, it can be presented that students' knowledge in class XI MIPA 1, XI MIPA 2, XI IPS 1, and XI IPS 2 on handling injuries based on these factors is in a low category.

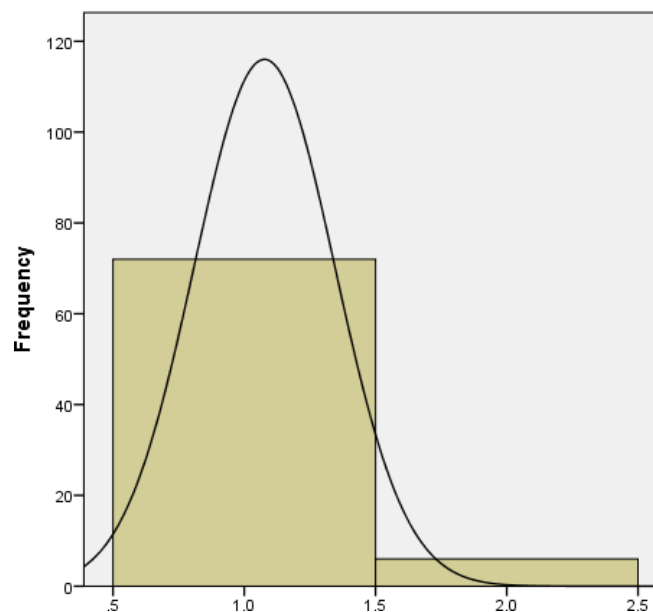
### Injury Treatment Factor

Knowledge of students in class XI MIPA and XI IPS at SMAN Sports East Java. The knowledge distribution table is based on injury treatment factors, as follows:

**Table 3.** Frequency Distribution of Injury Treatment Factors

Citerion	f	p
Very High	-	-
High	-	-
Low	6	7,7
Very Low	72	92,3
Total	78	100,0

If the table is displayed in the form of a bar chart, then the knowledge of class XI MIPA and XI IPS students towards injury care is as follows:



**Figure 3.** Knowledge Bar Chart Based on Injury Treatment Factors care category

Based on the bar chart above, it can be concluded that the injury treatment factor is categorized as "very high" 0% (0 students), the "high" category 0% (0 students), the "low" category 7.7% (6 students), and the "very low" category 92.3% (72 students). Therefore, it can be presented that the knowledge of class XI MIPA 1, XI MIPA 2, XI IPS 1, and XI IPS 2 students on handling injuries based on these factors is a deficient category. This study aims to learn about knowledge ranging from injury prevention, injury management, and injury treatment in class XI MIPA and XI IPS at SMAN Sports East Java.

## DISCUSSION

Based on the data that has been obtained, it can be concluded that the highest category is in the "low" category of 100%, with a frequency of 78 students. The "deficient" category is 92.3% with a frequency of 72 students; the "high" category is 25.6% with 20 students. So it can be concluded that the overall level of students' knowledge of first aid for sports injuries in the school environment can be categorized as low.

The categories in the data are included in the low group. Therefore, students should be deeper into the material about first aid for injuries because the activities of students at the East Java Sports High School itself is a particular school for sports, and activities are mainly carried out outside the classroom. There are routine exercises daily. So knowledge about first aid for injuries is necessary so that students are not wrong in handling injuries both themselves and others. The addition of first aid material for these injuries also needs to be practiced, such as being taught the basics of massage to minimize serious injuries. From some of the data that has been collected, some factors can affect students' knowledge of first aid for sports injuries, including the condition of schools and facilities and infrastructure, the perception of a teacher in helping injuries, students' willingness to understand more deeply about first aid for injuries.

## 4. CONCLUSION

Furthermore, to find out which of the two test items contributed the most to the results of futsal playing skills, the authors carried out data processing and analysis using the multiple correlation formula. From the three test items, it can be concluded that Kinesthetic Intelligence and Motor Ability strongly contribute to Futsal Playing Skills. Based on the results of data analysis, a description of the research results, and the discussion above, it can be concluded that the knowledge level of students in classes XI MIPA 1, XI MIPA 2, XI IPS 1, and XI IPS 2 at the senior high school Sports East Java is in the "low" category." 100% with a frequency of 78 students. the "deficient" type is 92.3% with a frequency of 72 students, the "high" category is 25.6% with a frequency of 20 students. So it can be concluded that the overall level of students' knowledge of first aid for sports injuries in the school environment can be categorized as low. The statement above shows that students at schools have not been entirely taught about first aid for injuries. Still, students have started to know a little about first aid for damages, as evidenced from the data results above that the category of students receiving learning about first aid for injuries is low.

## Conflicts of interes

The authors have no conflicts of interest with the content of this review.

## 5. REFERENCES

- Artanayasa, I. W., & Putra, A. (2014). Cedera pada pemain sepakbola. seminar nasional FMIPA UNDIKSHA IV, 345–353.
- Batubara, R. W. (2021). Pengaruh keselamatan, kesehatan kerja (K3) dan gaya kepemimpinan terhadap produktivitas kerja karyawan dimediasi dengan disiplin pada bagian operasional ptpn iv balimbingan. *Nuevos Sistemas de Comunicación e Información*, 2013–2015.
- Cheron, C., Salvagni, J., & Colomby, R. K. (2020). The qualitative approach interview in administration: a guide for researchers. *Journal of Contemporary Administration*, 25(1), 181–196.
- Dhani, I. P., & Utama, A. . G. S. (2017). Pengaruh pertumbuhan perusahaan, struktur modal, dan profitabilitas terhadap nilai perusahaan. *Jurnal Riset Akuntansi Dan Bisnis Airlangga*, 2(1), 135–148. [https://doi.org/10.1007/978-3-540-72816-0\\_6068](https://doi.org/10.1007/978-3-540-72816-0_6068)
- Haqqy, sayyid muhammad, Imansyah, F., & Hermansah, B. (2021). Strategi guru dalam pembelajaran pjok di smp negeri 2 muara enim pada masa pandemi covid-19. *Gelombang Pendidikan Jasmani Indonesia*, 5(2), 123–131.
- Isamy, I. (2019). Penelitian survei dalam pembelajaran dan pengajaran bahasa inggris izzul. *Japanese Society of Biofeedback Research*, 19, 709–715. [https://doi.org/10.20595/jjbf.19.0\\_3](https://doi.org/10.20595/jjbf.19.0_3)
- Mallas, E. J., De Simoni, S., Scott, G., Jolly, A. E., Hampshire, A., Li, L. M., Bourke, N. J., Roberts, S. A. G., Gorgoraptis, N., & Sharp, D. J. (2021). Abnormal dorsal attention network activation in memory impairment after traumatic brain injury. *Journal of Neurology*, 144(1), 114–127. <https://doi.org/10.1093/brain/awaa380>
- Morrey, L. B., Roberts, W. O., & Wichser, L. (2020). Exercise-related mental health problems and solutions during the covid-19 pandemic. *Current Sports Medicine Reports*, 19(6), 194–195. <https://doi.org/10.1249/JSR.0000000000000725>
- Pasaribu, M., Irvan, & Amir, A. (2022). Pengetahuan cedera olahraga pada siswa mtsn barito selatan kalimantan tengah. *Jurnal Pemikiran Dan Pengembangan Pembelajaran*, 4(1), 145–152.
- Qonitah, ratu amanda. (2017). Analisis penerapan k3 dan faktor-faktor yang mempengaruhi kecelakaan kerja pada kapal bouke ami di pelabuhan perikanan nusantara muara angke. Universitas Brawijaya. repository.ub.ac.id
- Satria, D. (2014). Teknik analisis data dalam research and development. UNY : Fakultas Ilmu Pendidikan, 6, 11.
- Subrata, T., Rusni, N. W., & Lestarini, A. (2022). Pelatihan teknik imobilisasi cedera leher kepada pelatih dan official cabang balap motor di koni kabupaten badung keterbatasan pengetahuan pelatih dan pertolongan pertama pada cedera olahraga balap motor tidak memiliki sarana dan peralatan. *Warmadewa Minesterium Medical Journal*, 1(1), 1–6.
- Toccalino, D., Haag, H., Estrella, M. J., Cowle, S., Fuselli, P., Ellis, M. J., Gargaro, J., & Colantonio, A. (2022). The Intersection of Intimate Partner Violence and Traumatic Brain Injury: Findings from an Emergency Summit Addressing System-Level Changes to Better Support Women Survivors. *Journal*