



## Level of Knowledge, Handling Sports Injuries, using the RICE Method, at the Banjar Regency Sports Teachers Association

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### Abstract

The research aims to determine and describe the level of knowledge of handling sports injuries using the RICE Method at the Banjar Regency Sports Teachers Association. The method used in this research is a descriptive method, namely describing or illustrating events that are currently occurring using non-experimental methods using survey techniques (Hasan Syahrizal, 2023). An overview of the level of knowledge of handling sports injuries using the RICE method at the Banjar Regency Sports Teachers Association was 158 respondents, with details of a very high classification of 44 people with a percentage of 28%, a high classification of 105 people with a percentage of 66%, 9 people in the medium classification with a percentage of 6%, and 0% in the low and very low classification. The high results were because previously the Banjar Regency Sports Teachers Association had taken training in handling injuries and first aid in accidents. The Banjar Regency Sports Teachers Association, apart from being physical education, sports and health teachers, also has other professions such as coaches, referees, personal trainers, athletes, sports instructors and therapists. This research provides information to the Banjar Regency sports teacher association about handling Sports Injuries so that they can understand and apply injury treatment and prevent further injuries using the RICE Method. In addition, this research activity can improve and expand understanding of the treatment of sports injuries, as well as contribute to scientific studies in the field of sports science.

### How to Cite

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## INTRODUCTION

Sports injuries are various types of injuries that can occur in the realm of sports, either during activities, during sports, during training, matches, or after matches. It is important to promptly and effectively treat these sports injuries to avoid potential complications that can cause physical impairment and limitations (Sucipto et al., 2022). Injuries have a detrimental impact on the well-being, health and lifestyle of people who suffer sports injuries, including increased risk of distress, anxiety, sleep disturbances, depression, cognitive impairment and financial costs due to job loss. Injuries are multifactorial with inherent risk factors that cannot be changed, for example: age, gender and can be modified, for example: strength, flexibility (Griffin et al., 2019)

According to (Shintya et al., 2024) injuries can occur due to various factors, namely: First, External Violence comes from outside, which includes sports equipment, sports facilities, supporting facilities. Second, internal violence comes from within, pain experienced after exercise can be caused by inappropriate physical activity, negligence in stretching muscles adequately, and failure to warm up and cool down properly. Third, overuse injuries, namely injuries due to overuse that occur due to excessive, fast and prolonged repetitive movements. Fourth, traumatic injuries, namely traumatic injuries that arise as a result of direct impact or trauma, or as a result of sudden movements that exceed a person's physical capabilities.

As for according to (Ridha & Rachman, 2023) persistent or excessive use of muscles and self-inflicted excessive exercise Practicing beyond your limits to achieve your target can also be the cause injury occurs.

If a sports injury occurs, it is necessary to provide appropriate first aid so that the condition does not get worse, one first aid method that is often used to treat sports injuries is the RICE method. RICE is a simple method and can be done alone without the help of medical personnel. The RICE method is a sports injury treatment method that is easy to do and effectively treats bleeding and swelling in injured blood vessels, providing relief and potentially reducing pain (Oktavian & Roepajadi, 2021).

The RICE method, which previously stands for Rest, Ice, Compression, and Elevation, is a simple and effective first aid measure for dealing with sports injuries, especially soft tissue injuries, such as sprains and strains. The explanation and benefits of applying sports injury treatment using the RICE method are as follows Rest is the most important thing to do when experiencing a

sports injury (Oki Candra, Dupri, Novri Gazali, Muspita, 2021) Rest will help reduce pain, swelling, and bleeding. The injured body part should be rested for 24-48 hours or until the pain disappears (Yogi Adi Damara, 2021)

Ice (Cold Compress) can help reduce pain, swelling and inflammation (Trio Hardianto, Sapti Ayubbana, 2022). Cold compresses can be done using ice cubes wrapped in cloth or towel. Cold compresses are applied for 20 minutes, three times a day.

Compression can help reduce swelling. Compression can be done using an elastic bandage or special ankle tapping splint, elastic bandage, air cast, can be done by wrapping it in a special ankle tapping boot, elastic bandage, air cast. on the injured body part tightly, but not too tightly (Yogi Adi Damara, 2021)

Elevation is a part of the body that is injured which can help reduce pain and improve blood circulation in the affected area, can reduce inflammation so that it can reduce swelling by elevating the injured body part, for example the feet and hands. The injured body part can be elevated by placing it on a pillow or support (Fajar Sidik Siregar, 2022).

As for several previous studies regarding the level of knowledge of treating sports injuries using the RICE Method, most of the studies took samples from pupils, students, athletes, and sports enthusiasts:

Analysis of Knowledge Level of First Handling of Sports Injuries (RICE Method) in Semarang City State High School. Aims to determine the level of knowledge of first aid for injuries in Semarang City State High School students (Rizqi Wahyu Nurrokhmah, 2024).

Description of the Level of Knowledge Regarding First Treatment of Sports Injuries in Student Activity Units (UKM) Sports at Jenderal Achmad Yani University Yogyakarta. The aim of the research was to determine the level of knowledge of handling sports injuries among students at the Student Sports Activities Unit at Jenderal Achmad Yani University, Yogyakarta. (Hardyanto & Nirmalasari, 2020).

Level of Understanding Regarding Sports Injury Management Using the Rice Method at the Batu Merah Football Club. The aim is to determine the level of understanding about treating sports injuries using the RICE method at the Batu Merah Football Club (Adriansyah, 2021).

From previous research, there has been no research targeting physical education, sports and health teachers, in particular there have been no research activities on the sports teacher association in Banjar Regency. This research provides information to the Banjar Regency Sports Teachers

Association about handling sports injuries so that they can understand and apply first treatment and prevent further injuries using the RICE method and describe the level of knowledge of handling sports injuries using the RICE method in the Banjar Regency sports teachers association.

In addition, this research activity can improve and expand understanding of the treatment of sports injuries, as well as contribute to scientific studies in the field of sports science. Apart from being able to expand the reader's knowledge and insight, this valuable information can also be a valuable reference for future researchers because it contains the meaning of sports injuries, the impact of sports injuries, causes of injuries, and treatment of sports injuries using the RICE method.

IGORA (Sports Teachers Association) Banjar Regency, South Kalimantan is a combination of the Physical Education, Sports and Health Teachers' Working Group (KKG Education, Physical, Sports and Health) and the Physical Education, Sports and Health Teachers' Conference (MGMP Physical Education, Sports, and Health) Banjar Regency. The Banjar Regency Sports Teachers Association is a forum for friendship between teachers of physical education, sports and health at the Elementary School and Junior High School levels, in addition to developing the skills and abilities of teachers to create healthy, healthy and high-achieving students.

Apart from that, the Sports Teachers Association is also actively involved in developing the skills and abilities of physical education, sports and health teachers through seminars, coaching and training, as well as being actively involved in social activities caring for others. Apart from that, he also plays an active role in the development of football through the 12 Year Banjar Regent's Cup Football Tournament which was attended by Elementary Schools/Madrasah Ibtidayah throughout Banjar Regency in collaboration with the Association of Professional and Similar Skills (APKS) of the Republic of Indonesia Teachers' Association of Banjar Regency, and plays an active role in the National Student Sports Olympiad (O2SN) at junior high school level throughout Banjar Regency in the sports of athletics, swimming, badminton, pencak silat and karate

Physical Education, Sports and Health teachers who are members of the Banjar District Sports Teachers Association have a profession as educators but also have other professions to fill their free time or increase their income such as coaches, referees, personal trainers, athletes, gymnastics instructors and therapists, because sports teachers are very often involved with physical activity/sports, therefore it is important to have

knowledge about the treatment of sports injuries.

One simple, easy and effective way to treat injuries is to use the RICE method. The RICE method is a simple and effective first aid method for treating sports injuries, especially soft tissue injuries such as sprains and strains. Therefore, the Banjar District Sports Teachers Association needs to have adequate knowledge and skills in implementing the RICE method.

Based on the existing background and the absence of research regarding the level of knowledge of handling sports injuries using the RICE Method at the Banjar Regency Sports Teachers Association, the researcher wants to know more deeply about the "Level of Knowledge for Handling Sports Injuries using the RICE Method at the Banjar Regency Sports Teachers Association". This study aims to determine the level of knowledge regarding handling sports injuries using the RICE method and provide information about sports injuries, the impact of sports injuries, and the causes of injuries to the Banjar District Sports Teachers Association and readers.

## METHODS

The method used in this research is a descriptive method, namely describing or describing events that are currently occurring using non-experimental methods using survey techniques (Hasan Syahrizal, 2023). The survey technique is research by collecting information from a sample by asking through questionnaires or interviews to describe various aspects of a population (Maidiana, 2021).

This research is a type of non-experimental quantitative research with an observational type. The research design used is a descriptive survey, namely looking at a description of phenomena that occur in a certain population (Wiwin Yuliani, 2023). The instrument used in this research was a questionnaire. Questionnaires or questionnaires are used with a closed nature, questionnaires are a data collection technique that is carried out by giving a series of questions or written statements to respondents to answer.

The target population is a population that meets the sampling criteria and is the final target of the research. In contrast, an accessible population is a population that meets research criteria and can be reached by researchers, usually in groups (Nur Fadilah Amin, Sabaruddin Garancang, 2023). The population in this study were elementary and junior high school sports teachers who are members of the Banjar Regency Sports Teachers Association. The technique used in this research is purposive sampling, namely the technique of sampling data sources with certain

considerations, for example people are assumed to know or master something to facilitate research (Sugiyono, 2015)

To achieve the objectives of this research, we first need to know the research variables. A variable is something that is the subject of research and plays a role in the events being measured. According to (Sugiyono, 2014) The definition of a variable is basically any form determined by researchers to obtain information about it and draw conclusions from it. The variables of this research are:

1. Variable X: Level of knowledge
2. Variable Y : RICE method

This research describes and describes the level of knowledge regarding the Rice method of sports injury management at the Banjar Regency Sports Teachers Association, South Kalimantan. This research was conducted online via a Google form created and shared in the Banjar Regency Sports Teachers Association WhatsApp group.

The data collection technique for this research is to use a closed questionnaire which contains a number of questions with alternative answers, B (True) and S (False). The data collected in this research is data regarding the level of knowledge of handling sports injuries using the RICE method at the Banjar Regency Sports Teachers Association.

Data analysis uses quantitative descriptive analysis with percentages. Data is analyzed descriptively with percentages that will be categorized first. The steps used are: (1) assessing the answers (2) adding up the answer scores based on the overall factors, (3) making a percentage using a formula. To find the amount (percentage) use the following formula:

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

Information:

P = Percentage number

F = Frequency the percentage is being searched for

N = (number of frequencies/number of individuals)

The number of questions on this test is 30 questions. The score for each correct answer is 1, and for the wrong answer is 0. The classification consists of 5 groups: very high, high, medium, low and very low

Knowing the categorization using the Guttman scale, according to (Sugiyono, 2015) The Guttman scale is used if you want to get a definite answer to a problem, by knowing the level of knowledge of sports injury treatment using the RICE method at the Banjar District Sports Teachers Association.

## RESULTS AND DISCUSSION

Research on the level of knowledge of handling sports injuries using the RICE method at the Banjar Regency Sports Teachers Association was carried out online on 10 – 17 July 2024. The instrument used was a questionnaire in the form of a Google Form distributed via WhatsApp to the Banjar Regency Sports Teachers Association Group with a processing time limit of 40 minutes. Sent to the WhatsApp group of teacher working groups in Banjar Regency, whose participants are elementary school teachers who teach physical education, sports and health, apart from that, it was sent to the teacher deliberation group for physical education, sports and health subjects in Banjar Regency, whose participants are school teachers. junior high school who teaches physical education, sports and health.

Population of the Banjar Regency Sports Teachers Association, following up on a statement letter from the Banjar Regency Education Office number: 000/1216/disdik/2024, regarding the number of Banjar Regency sports teachers as 261 people with details of teachers who teach physical education, sports and health subjects, elementary school teachers totaling 206 people and junior high school teachers totaling 55 people. Meanwhile, the population who filled out the questionnaire was 158 people out of the total number of physical, sports and health subject teachers, 125 people in elementary schools and 33 people in junior high schools.

The results of research on the level of knowledge of handling sports injuries using the RICE Method at the Banjar Regency Sports Teachers Association can be seen through a descriptive table which provides classification, frequency and percentage information, **Table 1. Table 2. Table 3.**

**Table 1.** Frequency Distribution of Respondents Based on Gender and Teaching Level at the Banjar Regency Sports Teachers Association.

| Assessment Character | Frequency | Percentage% |
|----------------------|-----------|-------------|
| Gender               |           |             |
| Male                 | 127       | 80%         |
| Female               | 31        | 20%         |
| Teaching Level       |           |             |
| Elementary school    | 125       | 79%         |
| Junior high school   | 33        | 21%         |
| Total                | 158       | 100%        |



**Table 2.** Description of the level of knowledge of handling sports injuries using the RICE method at the Banjar Regency Sports Teachers Association

| Classification | Frequency | Percentage% |
|----------------|-----------|-------------|
| Very High      | 44        | 28%         |
| High           | 105       | 66%         |
| Medium         | 9         | 6%          |
| Low            | 0         | 0%          |
| Very Low       | 0         | 0%          |
| Total          | 158       | 100%        |

**Table 3.** Domain description of the level of knowledge in handling sports injuries with the RICE Method at the Banjar Regency Sports Teachers Association.

| Domain      | Frequency | Percentage% |
|-------------|-----------|-------------|
| Rest        |           |             |
| Very High   | 46        | 29%         |
| High        | 34        | 22%         |
| Medium      | 75        | 47%         |
| Low         | 2         | 1%          |
| Very Low    | 1         | 1%          |
| Ice         |           |             |
| Very High   | 110       | 70%         |
| High        | 38        | 24%         |
| Medium      | 8         | 5%          |
| Low         | 2         | 1%          |
| Very Low    | 0         | 0%          |
| Compression |           |             |
| Very High   | 83        | 53%         |
| High        | 65        | 41%         |
| Medium      | 7         | 4%          |
| Low         | 2         | 1%          |
| Very Low    | 1         | 1%          |
| Elevation   |           |             |
| Very High   | 62        | 39%         |
| High        | 65        | 41%         |
| Medium      | 24        | 15%         |
| Low         | 2         | 1%          |
| Very Low    | 5         | 3%          |
| Total       | 158       | 100%        |

The high achievement of elementary school and junior high school teachers is because previously the Banjar Regency Sports Teachers Association had held training on handling injuries and first aid in accidents (Hidayatullah & Saputra, 2021) that injury management training through the RICE method can provide knowledge and understanding about sports injury management, which was previously unknown

through this training. reinforced by opinion (Denatara et al., 2023) that RICE Method training can broaden your understanding of sports injury management, both benefiting yourself and others.

The high level of knowledge of handling sports injuries in the Banjar Regency Sports Teachers Association is due to the fact that they have professions other than as educators, namely being coaches, referees, personal trainers, athletes, gymnastics instructors and massage therapists. According to (Herdiandanu & Djawa, 2020) The risk of injury is very high in any sporting activity, so usually the skills of teachers (physical education, health, and sports teachers), coaches, athletes and therapists because they often come into contact with physical activities such as sports usually have the understanding and skills in handling sports injuries.

High classification regarding handling sports injuries using the RICE method at the Banjar District Sports Teachers Association, can support the learning outcomes of the independent curriculum for stage D grade 7 – Stage F grade 12 to fulfill learning material about injury management, so as to provide students with an understanding of injury management. (Sutirta et al., 2023) believes that the knowledge and understanding of teachers, especially Physical Education, Sports and Health teachers, is very important in handling injuries to students.

The high level of injury management knowledge classification in the Banjar Regency Sports Teachers Association which has the profession of physical education, sports and health teachers, is in accordance with the opinion (Obi Sugand, Syafrial, Ari Sutisyana, Arwin, 2021) education, physical, sports and health teachers have knowledge and skills in the fields of health and sports, which are very necessary in managing school health efforts. They understand the principles of health, nutrition and sanitation, and have the ability to provide first aid in the event of an accident, and physical education, sports and health teachers can help maximize the use of School Health Business facilities available at the school, such as school health business rooms, equipment health and medicine.

There are several methods for treating injuries according to (Fondy, 2016) namely, cold method, hot method, water spray method and massage, of several injury treatment methods, the RICE (Rest, Ice, Compression, Elevation) method has the advantage of being widely known because of its simplicity and effectiveness in treating acute soft tissue injuries such as strains and sprains. The four steps (Rest, Ice, Compression, Elevation), are easy to understand and implement without requiring special equipment or ad-

ditional costs (Muhammad Tri Fauzi, Bernadeta Suhartini, 2023). Because the RICE method can reduce pain, swelling, and speed up recovery in a practical and affordable way, RICE has become the main choice for many people in treating initial injuries. (Savitri et al., 2022).

With the results of this research, the level of knowledge about treating sports injuries using the RICE method at the Banjar Regency Sports Teachers Association is highly classified, it is hoped that it will be able to create fit, healthy and high achieving students. In this research, physical education, sports and health teachers in other areas were able to increase their knowledge and understanding of injury management through training and seminars as carried out by the Banjar Regency sports teacher association, in line with the opinion (Muspawi, 2021) Involving teachers in seminars and training activities provides benefits such as knowledge, skills, experience, abilities and development in various fields

The Banjar Regency Sports Teachers Association is an educator at the elementary school level and junior high school level in Banjar Regency, South Kalimantan who teaches physical education, sports and health subjects. The main aim is to build relationships between elementary and middle school teachers who teach physical education, sports and health subjects. Another aim is to improve the quality and abilities of teachers and be able to create students who are healthy, fit and achieve.

Apart from working as an educator or teacher, he also has other professions to fill his free time or increase his income such as Coach, Referee, Personal Trainer, Athlete, Gymnastics Instructor and Massage Therapist. Because the Sports Teachers Association is very often involved in physical sports activities both at school and outside school, it is important to have knowledge and understanding about treating sports injuries, both for students, themselves and others. The RICE (Rest, Ice, Compression, Elevation) method is appropriate for treating soft tissue sports injuries such as sprains and strains.

From the results of the research description, positive results were obtained with high results regarding the level of knowledge of handling sports injuries using the RICE method at the Banjar Regency Sports Teachers Association.

The strong reason for the high level of knowledge of treating sports injuries using the RICE Method among sports teachers is due to several factors: First, the Banjar Regency sports teacher association previously took part in training in handling sports injuries and first aid for accidents held by the Banjar Regency sports teacher association together with the Indonesian Red

Cross, Banjar Regency, secondly, the relationship between sports teachers is very intensely related to sports activities because they have a sports activist profession, apart from being physical education, sports and health teachers, they also have other professions such as coaches, athletes, gymnastics instructors and massage therapists.

Injury Treatment using the RICE (Rest, Ice, Compression and Elevation) Method, which is a simple method without the help of a medical nurse, can be done independently, is cheap, easy to understand, easy to apply and effective in treating sports injuries. This is also the reason why the RICE method has advantages over other methods.

Apart from the level of knowledge in treating sports injuries using the RICE method, it must also be balanced with having adequate skills in applying the RICE method in treating sports injuries. From the results of research on the level of knowledge of handling sports injuries using the RICE method at the Banjar Regency Sports Teachers Association, it can be used as a reference to continue to develop oneself by learning about knowledge in handling sports injuries using the RICE method through various sources, such as books, articles, seminars or training.

It is hoped that this research can provide information about sports injuries, causes of sports, the impact of sports injuries, treatment of sports injuries using the RICE method, and can enrich and increase knowledge about the treatment of sports injuries. Apart from that, it is also hoped that it can provide scientific studies in the field of sports science, can increase insight and knowledge for readers and become a reference for future researchers.

## CONCLUSION

The level of knowledge of handling sports injuries using the RICE method at the Banjar Regency Sports Teachers Association (IGORA Banjar Regency) amounted to 158 respondents with a very high classification of 44 people with a percentage of 28%, a high classification of 105 people with a percentage of 66%, a medium classification of 9 people with a percentage of 6 %.

The reason these results are strong is because they dominate high and very high because previously the Banjar Regency Sports Teachers Association had participated in first aid for accidents and handling sports injuries. Apart from that, the Banjar Regency Sports Teachers Association has a profession as a teacher of physical education, sports and health, there are also other professions such as coaches, referees, athletes, gymnastics instructors and masseurs who often

come into contact with the physical body. sports activities/activities, therefore have knowledge in the field of sports injury management. These results are very influential in enabling injury management more effectively, minimizing the impact of injury, and speeding up the recovery process.

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