



Management of sport injury using the concept of "do rice, don't harm"

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ARTICLE INFO	ABSTRACT
<p>Article history Received: 2021-05-09 Revised: 2022-01-04 Accepted: 2022-01-05 Published: 2022-02-24</p> <p>Keywords Community service School health unit Sports injury</p>	<p>Increasing physical capacity or performance after injury to students is a procedure that is in accordance with the commitment to achieving the Sustainable Development Goals (SDGs) in the health sector. This service activity aims to increase the active participation of teachers and students in overcoming sports injury health problems. The approach method used in this service activity is to use a synergistic partnership improvement to increase the participation of partners. The approach was carried out with the school health unit (Unit Kesehatan Sekolah/UKS) officers and students. The implementation of this activity received positive support from the principal and sports teachers and is an activity that has never been done in this place. This activity is the result of collaboration between the Faculty of Health Sciences UMM and SMPN 26 Malang City. Based on the results of the evaluation of the training activities carried out, it was found that the participants were able to take part in this activity well and enthusiastically as indicated by an increase in knowledge of 75%. This means that there is an increase in the active participation of teachers and students in overcoming sports injury health problems.</p>
<p>Kata kunci Cedera olahraga Pengabdian Unit kesehatan sekolah</p>  	<p>Penatalaksanaan cedera olahraga menggunakan konsep "do rice, don't harm". Peningkatan kapasitas fisik atau performa setelah cedera pada peserta didik adalah prosedur yang sudah sesuai dengan komitmen pencapaian Sustainable Development Goals (SDGs) bidang kesehatan. Kegiatan pengabdian ini bertujuan untuk meningkatkan partisipasi aktif dari guru dan peserta didik dalam mengatasi masalah kesehatan cedera olahraga. Metode pendekatan yang digunakan dalam kegiatan pengabdian ini adalah dengan menggunakan peningkatan kemitraan yang sinergis guna meningkatkan peran serta dari mitra. Pendekatan dilakukan dengan pihak petugas unit kesehatan sekolah (UKS) dan murid. Pelaksanaan kegiatan ini mendapat dukungan positif dari pihak Kepala Sekolah dan guru olahraga dan merupakan kegiatan yang belum pernah dilakukan di tempat ini. Kegiatan ini merupakan kegiatan hasil kerjasama antara Fakultas Ilmu Kesehatan UMM dengan SMPN 26 Kota Malang. Berdasarkan hasil evaluasi terhadap kegiatan pelatihan yang dilakukan, diketahui bahwa peserta dapat mengikuti kegiatan ini dengan baik dan antusias ditunjukkan dengan adanya peningkatan pengetahuan sebanyak 75%. Ini berarti ada peningkatan partisipasi aktif dari guru dan peserta didik dalam mengatasi masalah kesehatan cedera olahraga.</p> <p>Copyright © 2022, Rosadi and Wardojo This is an open access article under the CC-BY-SA license</p> 

How to cite: Rosadi, R. & Wardojo, S. S. I. (2022). Management of sport injury using the concept of "do rice, don't harm", *Journal of Community Service and Empowerment*, 3(1), 32-37. <https://doi.org/10.22219/jcse.v3i1.16509>

INTRODUCTION

School health unit what is so called *Unit Kesehatan Sekolah* or UKS is one of the existing government programs and is implemented in schools in service and health education or healthy living habits at schools and is applied in the surrounding environment (Hidayat & Argantos, 2020). The existence of UKS in each school is expected to help improve the health status of students (Fery Fadly & Fadilla, 2020; Putra & Wahyuni, 2018; Susana, 2018). One of the UKS tasks in each school

is to provide health services for sports injuries to students. Several types of sports injuries experienced by students are muscle and ligament injuries (Meikahani & Kriswanto, 2015; Sanusi et al., 2020).

One of the schools that has UKS is SMPN 26 Malang, East Java. SMPN 26 Malang is located at Jl. Gourami, Tunjungsekar, Malang. The school building that looks beautiful because it is located in a rice field area makes the students and teachers who occupy the building in this new teaching area very conducive. SMPN 26 Malang is relatively new in the Malang City Education Office, based on interviews conducted in August 2014 this school was inaugurated by the Mayor of Malang Drs. Peni Suparto, MAP in 2012. Based on 2014 data, the total number of students at SMPN 26 Malang is 298 students and there are 23 teachers in it and Dra. Hj. Pancayani Dinihari, M.Pd is a person who is believed to be the school principal of SMPN 26 Malang. There are 2 sports teachers who teach Physical Education and Health subjects. The sports schedule for grade 7 is on Tuesdays at 1-4 period, for grade 8 on Thursdays at 1-4 period, while in grade 9 on Fridays at 1-4 period.

Based on the results of interviews with the principal, sports teachers, and students on January 10, 2019, students at this school during sports subjects several times experienced sports injuries such as sprains while playing ball, collisions with opponents while playing ball, falling on when running, overstretching during long jumps and so on. These types can be described or classified as (1) Bruises/Contusions; As a result of direct trauma to intact skin, effects can vary from hematoma to severe cases of compartment syndrome. (2) Sprains; Indirect pressure injury to the joint capsule or ligament. It requires support for proper healing. In severe cases, longer support is required and possibly surgery. (3) Tension; Occurs in muscles and myotendinous junctions. Treatment is the same as treatment for sprains (Rosadi et al., 2019; Rosadi & Wardojo, 2017).

The most interesting idea when the interview took place, both teachers and students were still confused when asked how to deal with sports injuries. They answered that they did not understand and even the handling led to things that could worsen the condition of the injury such as massage and given balm or the like. These problems can be minimized by increasing the knowledge of sports teachers, students and UKS officers to minimize the consequences of incorrect handling when experiencing sports injuries (Susko & Fitzgerald, 2013).

The classic initial treatment for soft tissue injuries is DO RICE or rest, icing, compression, and elevation and DON'T HARM or heat, alcohol, run, and massage. Based on the results of previous experimental studies, it is known that this technique has optimal effectiveness if applied in the early stages after the injury occurs. Rehabilitation is the key to recovery and returning to regular activities (Levinger et al., 2011; Lun et al., 2015).

Increasing physical capacity or performance after injury to students is crucial because it is in accordance with the commitment to achieving the Sustainable Development Goals (SDGs), one of which is ensuring the level of health and education (Andreoni & Miola, 2016; BAPPENAS, 2019; WHO, 2017). According to some observational research results, if students get injuries that make it difficult to carry out activities due to school activities, it can cause a decrease in the academic performance of students (Rosadi, 2021; Rosadi et al., 2021).

Therefore, based on the results of discussions between teachers and the service implementation team from the Faculty of Health Sciences, UMM, an agreement was reached that the problem that became a priority and urgent to find a solution was the lack of knowledge in post-sport injury management. In addition, this service is crucially done as it is in line with one of the SDGs points, namely the existence of health and education guarantees. This service activity aims to increase the active participation of teachers and students in overcoming sports injury health problems. Other than being useful in helping to solve partner problems, this activity is expected to be an inspiration for other health and sports service activities carried out by university lecturers at lower education levels.

METHOD

Problem solving framework

Our problem solving framework is to increase the active participation of students and UKS cadres in the target school environment in overcoming problems that arise after sports injuries. The activities that we carried out were (1) Training and mentoring on sports injury management and (2) Training programs and preventive and promotive management assistance for sports injuries.

Realization of problem solving

Realization of problem solving was training and mentoring the sports injury management at SMPN 26 Malang. This activity was carried out for 1 week with 3 meetings and each meeting were 2 hours of face-to-face material presentation and practice, including an introduction to the types of sports injuries, the risk of mistreatment in sports injuries, the provision of training materials for sports injury management of DO RICE DON'T HARM, and implementation of these exercises on students and teachers. The activity was carried out on 1-7 June 2019.

Target audience

In this activity, the target audience were 36 students representing grades 7, 8, and 9, as well as 6 UKS cadres at SMPN 26 Malang. Surely, the involvement of UKS cadres is an important part of this training and mentoring, this is because they are one of the milestones for the realization of health and health promotion in the school environment.

The method used

The method of training and mentoring activities in SMPN 26 Malang City was carried out in several stages, namely the delivery of material was carried out in 2 sessions, where session 1 was the delivery of material related to the types of injuries and the theory of how to manage them which was carried out for 30 minutes, while the second material was given for 45 minutes, was related to the practice of how technically manage sports injuries using the RICE and HARM methods. After the presentation of the material, the agenda was continued with providing training and practice on the technique of stretching the leg muscles and installing kinesio taping to the participants. In the implementation of this activity, an evaluation of the achievement of the program's success was also carried out, through pretest and posttest activities.

RESULTS AND DISCUSSION

The activity was carried out at SMPN 26 Malang City, before doing community service, we as a team coordinated with the school principal and sports teachers in the form of pre-planning to determine targets, methods and systematics of activities, and places of activities. The presentation of the material was divided into 2 parts. The material in the first part was related to medical cases of sports injuries, while the second material was related to training in the management of acute sports injuries.

Characteristics of participants

The characteristics of the participants in this activity were 42 participants divided into 36 students representing grades 7, 8, and 9, as well as 6 UKS cadres, while as an illustration of the characteristics of the participants are as shown in Table 1.

Table 1. Gender characteristics

Gender	Total	Percentage (%)
Male	32	76
Female	10	24
Total	42	100

It can be seen from Table 1 that from the total number of participants in this activity, the majority were male as many as 32 people (76%), while the rest were female as many as 10 students (24%). The results of the pre-test and post-test can be seen in Figure 1.

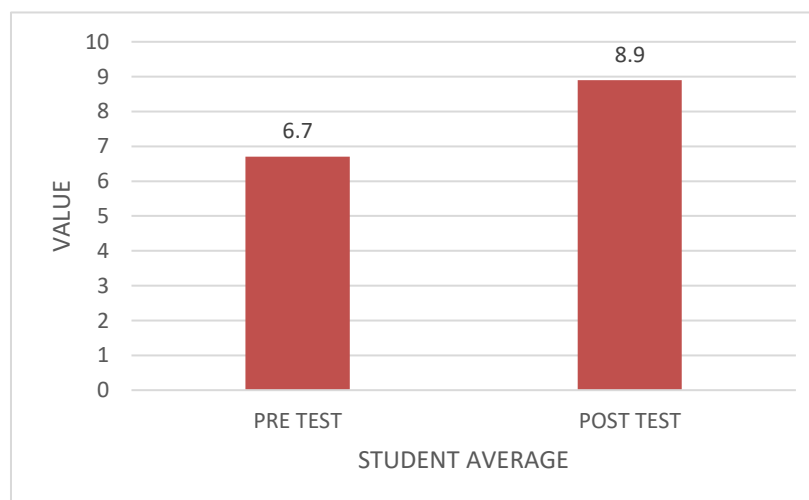


Figure 1. Pre-test and Post-test Results

From the chart, it can be seen that students experienced an increase in understanding of the questions given to them before and after the activity. Before the activity, the average score of the students was 6.7 and the score after the training

increased to 8.9. It can be concluded that this activity can increase students' knowledge related to sports injury prevention and management education.

Material delivery activities

Material delivery activities were divided into 2 stages. The first phase was for 30 minutes, the first material was about the types of sports injuries and the theory of how to manage them, while the second material given for 45 minutes, was related to the practice of technically managing sports injuries using the RICE and HARM methods (Figure 2). The media used were injury treatment equipment in the form of Ice packs, Ethyl Chloride, Kinesio Taping, scissors, mattresses, plasters, and others.



Figure 2. Presentation of Materials

The training activities

The training activities carried out are in the form of training in leg muscle stretching techniques. This training aimed at relaxing injured muscles and aimed at improving muscle structure in patients with sports injuries (Figure 3). In addition, participants also practiced kinesio taping on injured knees, where this therapy aims to reduce pain that occurs in leg muscle injuries (Figure 4).



Figure 3. Limb Muscle Stretching Technique



Figure 4. Kinesio Taping Assembly

In the implementation of education and training activities on sports injury management for SMPN 26 Malang students, it is known based on the results of the pre-test post-test evaluation that participants can take part in this activity well and enthusiastically shown by an increased knowledge as much as 75%. The results of this evaluation showed that the majority of participants had a fairly good understanding of the management of sports injuries using the DO RICE DON'T HARM method. This is an important point as the main goal of implementing this activity, due to the high number of cases of sports injuries in schools. Thus, training activities and sports injury management assistance are very crucial things to be given, especially to students and teachers, to be able to handle injury cases properly, appropriately, and effectively.

Injury is the effect of a force mechanism acting on the body or part of the body which can exceed the body's ability to handle it, while this force on the body can take place quickly or over a long period of time (Emery & Pasanen, 2019; Heaney et al., 2017). In real conditions, it can be explained that the result of a moment of excessive energy or strength that can be delegated to the body or part of the body cannot be accepted by the body or in adaptation (Abernethy et al., 2003; McGlashan & Finch, 2010). Thus, it can be concluded that sports injuries experienced by students can affect health and can have a negative impact on health patterns in these students. The increase in student knowledge can be caused by several factors as a driving force including: 1) the training material delivered is new material using language that is very understandable by students with additional animation, 2) The material presented is mixed in the form of tips or ways to deal with sports injury problems, 3) The training materials are given using the media module and LCD. There is no change or even a decrease in knowledge of the staff due to limitations and obstacles during the implementation of emergency health education.

CONCLUSION

The implementation of this activity received positive support from the Principal and sports teachers and is an activity that has never been done in this place. This activity is the result of collaboration between the Faculty of Health Sciences UMM and SMPN 26 Malang City. Based on the results of the evaluation carried out in this activity, it was found that the majority of participants were able to take part in this activity and understood the material related to sports injury management that was given. The positive implication that can be given from this activity is that sports injury management training can be used as a recommendation for UKS implementers in the school environment, to be included in the mandatory curriculum during UKS cadre training and school health promotion activities carried out for students in general.

ACKNOWLEDGEMENT

Gratitude is conveyed to the Dean of Faculty Health Science Universitas Muhammadiyah Malang and the Principle of SMPN 26 Malang City for their support to this activity so that it can be carried out well.

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