

FIRST AID EDUCATION DURING INJURY IN CHILDREN WITH RICE METHOD AT SEKOLAH INDONESIA SINGAPURA (SIS)

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ABSTRACT

First Aid is an aid for emergency treatment of victims before help is provided by medical personnel. Injuries can occur anywhere, the location of injuries often occurs especially in the home and school environment. School-age children are a group that is vulnerable to injury, especially when entering elementary school. Injuries can become an emergency case and cause serious injuries and even death if not handled properly. To prevent injuries in children from getting worse, one of the methods that can be used to treat is the RICE (Rest, Ice, Compression, Elevation) method, which can first rest the injured part, apply an ice pack to reduce swelling, bandage the injured skin and elevate the injured area above the height of the heart area. First Aid community service with the RICE method at Sekolah Indonesia Singapura (SIS) is a positive activity that aims to increase children's knowledge and ability to perform first aid when injured or when children know other people are injured. The method used is counseling about first aid for injuries using the RICE method, demonstrating and distributing leaflets. The results of the analysis of children's ability to understand first aid material when injured with the RICE method before and after education is 30 (with an average pre test score of 70 and post test 100). The increase in participants' knowledge proves that with this counseling participants become more aware of what is related to first aid during injuries that can be treated with the RICE method to prevent more severe injuries.

Keywords; First Aid, Emergency, RICE, Children

INTRODUCTION

Education is the provision of knowledge about certain things in an effort to increase public understanding. A good understanding will create a good mindset. One of the efforts that must be made for education is first aid when injured in children (Umasugi, 2021). First aid is an aid which provides emergency care to victims before help is provided by medical personnel. Injuries can occur anywhere, the location of injuries is more common especially in the home and school environment. This suggests that children spend a lot of time where injuries are most common (Ekaprasetia et al. 2018). Activities that often result in injuries in children are during play, walking, cycling, sports and other activities. The most commonly injured body parts are the hands, feet and head (Jufrizal & Rahmawati, 2023). School life is the most important part of a child's life that has a direct impact on physical and mental health in children (Tse et al. 2023). Students are a high risk group for emergencies because of the many options that can occur.

Children also spend a lot of time at school which puts them at higher risk of injury (Lenson and Mills 2016). Emergencies can happen unexpectedly and anywhere such as at home, on the go, even at school (Griffin et al. 2020). Providing first aid is very important in the event of an injury. First aid is an act of help or a form of care that is given quickly and precisely to a victim with the aim of preventing worsening conditions,

disability and even death before the victim gets treatment from authorized medical personnel so that first aid is not an actual treatment of a diagnosis of disease so that the sufferer recovers from the disease experienced. An emergency can be defined as a serious and sometimes dangerous situation that occurs suddenly and unexpectedly which requires immediate action to save lives (Tzimpoulas et al. 2020).

School-age children are a group that is prone to injury, especially the age of entering elementary school. The age of entering elementary school is usually children aged 6-7 years where at this time it is a transition period from kindergarten to elementary school (Silva et al. 2023). In this phase, children are still in the happy stage of playing so that the possibility of health problems that are often experienced by school-age children is injury. Injuries can occur anywhere. The World Health Organization (WHO) knows that 5.8 million deaths worldwide are due to injuries, and more than 3 million of them are in developing countries including Indonesia. Pediatric injuries have become a common health problem whose incidence continues to increase and requires high attention (Pratiwi et al. 2024). Injuries worldwide are responsible for approximately 950,000 deaths each year in children under the age of 18. Almost 90% of these are unintentional. About 230,000 deaths occur in children aged 1-5 years. Every year, tens of millions of children require treatment for non-fatal injuries, many with lifelong disabilities. Half of all unintentional injury deaths are caused by traffic injuries and drowning (WHO, 2014).

There is a majority female gender (57.90%), seen from the gender of women more careful in doing everything compared to men (Singletary et al. 2020). Where injury cases most often occur in men during rest hours, in women it often occurs during sports hours. The results of Riskesdas in 2018 reported that, injuries that often occur in children aged 5-14 years are at home and the environment as much as 58.9%. Injuries at school were also common for 18.5% and on the road for 17.4%. It is clear that places that are considered safe and comfortable (home and school) are not necessarily protected from hazards. Schools are the most common place for injuries to occur, because schools are places where children spend a lot of time playing (Abelairas-Gómez et al. 2020).

Sometimes children are also accustomed to playing with violence as they are modeled from cartoons so that they think it can be imitated when in fact it is very fatal and is the beginning of injury and can even make children's social and emotional disturbances (Nekada and Wiyani 2020). In managing injuries, there are several methods, namely the RICE method (Rice, Ice, Compression, Elevation). This is an emergency event that requires first aid after an injury to a child. Media tools that can be used in carrying out the RICE method are first aid tools such as; gauze, handsaplast / elastic bandage, betadine, and cold compresses (Sumadewi et al. 2022). These tools can be a medium in handling injuries so as to reduce the occurrence of swelling and more serious injuries .

Likewise, based on the description above, education is needed about First Aid When Injuring Children with the RICE Method (Sumadi et al. 2020). The purpose of this community service is that participants will pass on the information and even practice it if they know or experience an injury, so that this can be used as an effort to prevent injuries by increasing the information that participants have obtained from presenters related to First Aid Education When Injuring Children with the RICE Method (Rest, Ice, Compression, Elevation). Thus the application of the RICE method in dealing with injuries is able to become an effort in first aid to prevent more severe injuries

(Oktaviani et al. 2020).

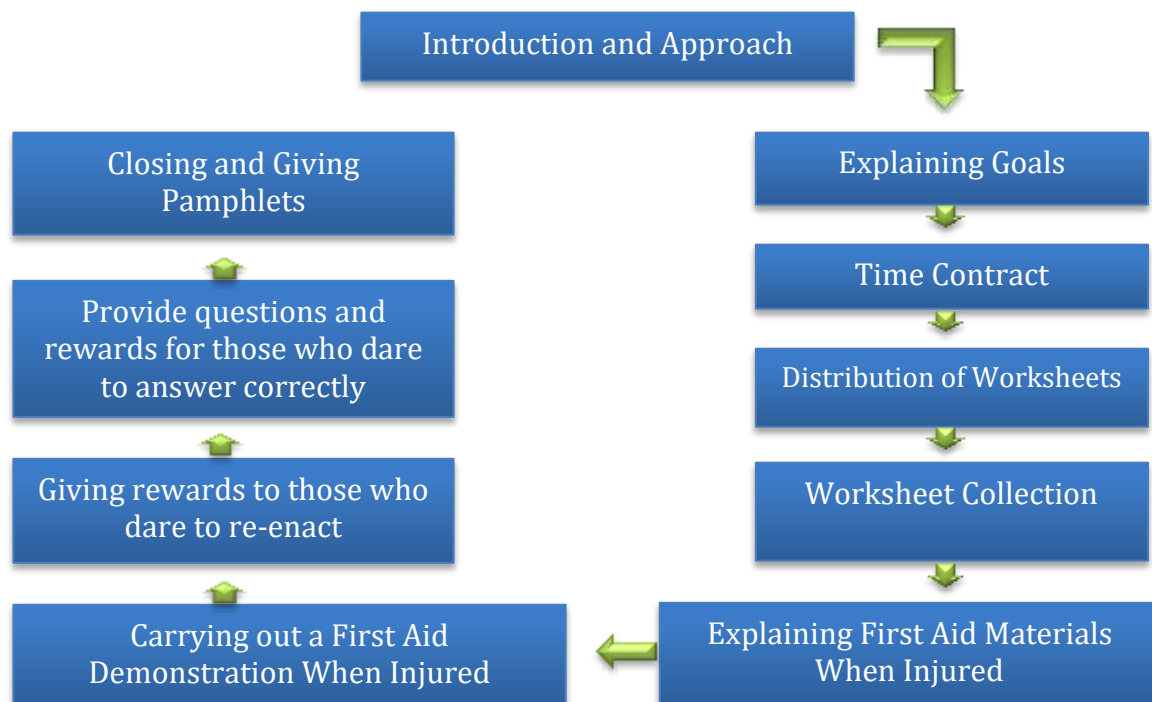
ACTIVITY METHODS

The method of community service at the Singapore Indonesian School (SIS) is by providing education/lectures regarding material explanations to children accompanied by demonstrations so that children can understand better after seeing the procedures for providing first aid when injured, which are practiced by the presenters (Agusman et al. 2024). Providing first aid education is very important to introduce first aid knowledge for parents or children to use when encountering injured victims (Wu et al., 2018). Educational media that is considered interesting for children of productive age is leaflets. The advantage of leaflets is that they are a type of printed media that contain summaries of educational material and users can learn according to their own learning pace (Saputra et al., 2018). Students at the Singapore Indonesian School (SIS) have never received education regarding correct injury management, namely using RICE Management. So, the First Aid material for Injuries using the RICE Method will be very useful as an educational theme that will be discussed together with students at the Singapore Indonesian School (SIS), where children are very vulnerable to injury at school.

The lecture method aims to explain what the RICE method is, how to apply it, and what types of injuries require the RICE method as the first treatment. Apart from that, the lecture method is also used to evaluate the results of service activities that have been carried out previously by interviewing and observing the implementation of the training that the participants have participated in. Meanwhile, the demonstration method is used to present and teach how to practice the stages of the first treatment using the RICE method, starting from rest, ice, compression, and elevation (Herlina et al., 2023). This time, the community service is for students in grades 1-2 at the Singapore Indonesian School (SIS). The number of participants in this service activity was around 13 children.

The initial activity that we carry out is to introduce the participants so that the participants get to know and get closer to the presenters. So, when the material starts, children can feel safe and comfortable. Next, make children focus first before entering material they have never received at school by counting in English, guessing, and saying the names of animals in English. Before entering the material, we first explain the purpose time contract and distribute worksheets that children need to do with honest answers. These are used to see how much children understand about first aid when injured using the RICE method. The children have finished answering several questions on the answer sheet. Then, we enter into the material that will be discussed together by demonstrating/demonstrating how to provide first aid when injured using the RICE method.

Do notRemember also to ask questions to find out how much the child understands after being given the material as a comparison and allow the child to re-demonstrate it. The child will be given the opportunity to carry out the demonstration in front of his friends and be given a prize as a form of reward for his bravery. The speaker will also give prizes to children who answer questions correctly so that children will be more enthusiastic about answering the next question. After community service, children will be distributed pamphlets with pictures so that children can remember them or study them again at any time.



RESULT AND DISCUSSION

Education on first aid when injured children using the RICE method at the Singapore Indonesian School (SIS) was carried out on May 14, 2024, which was attended by elementary school (SD) class 1 2 participants with a total of 13 children attending. The number of male students is eight children, and female students are five children. The series of implementation of this program goes through several stages, before carrying out community service for children in their respective classes. One of the teachers from the Singapore Indonesian School (SIS) first gave a welcoming welcome to our presence at the school, which the pupils and students warmly welcomed—introducing our team one by one in the division of material groups. After that, we were able to spend time together with the 1st and 2nd grade students.

Continuing implementation when we enter the room, do not forget to prepare the equipment that we will use in explaining the material, such as installing banners, preparing rewards, preparing tools for demonstrations, worksheet answers, and leaflets. Then, we started implementing community service regarding First Aid for Injuries in Children using the RICE Method in classes 1 and 2 of the Singapore Indonesian School (SIS). There are several implementation methods in delivering material that we use, namely:

- ✓ Introduction and Approach : Every time a meeting occurs, what we need to do first is an introduction, the same as when we met with the students of classes one and two at the Singapore Indonesian School (SIS). Make introductions using the child's language, make a time contract, explain the purpose, and remember to raise a few shouts to create a pleasant atmosphere in the room for the child. So that children feel comfortable and at home in the room is one way to approach participants.
- ✓ Bringing up children's focus and readiness to receive new material : Before entering the material, we also made guesses about numbers in English, and various kinds of animals in English with the aim of making participants

focused and ready to receive the material, where the material we will give to participants is indeed beyond what they often learn at school together with teachers. So, we do this with the hope that children/participants will have full readiness and focus in receiving new material.

- ✓ Providing Answer Sheets : Give a piece of paper containing several questions that must be answered by children according to their experiences and thoughts honestly, namely several questions that we ask in the answer sheet as follows.

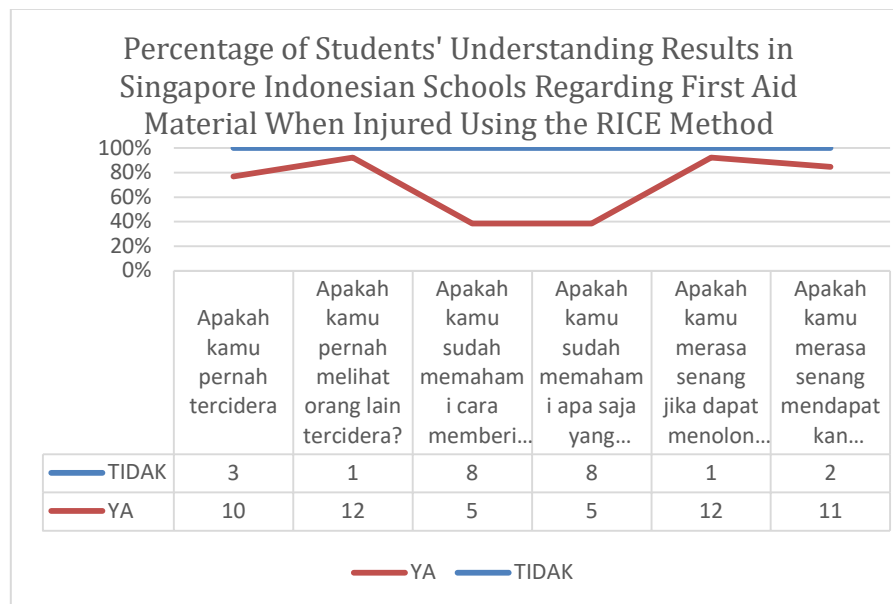


Figure 1. The results of the answers to the question sheet

The results of the answer sheets that we provided show that the participants already have focus readiness and even enthusiasm in accepting the new material that the presenters will present. Apart from that, the answer sheet also shows that there are still many children who do not understand how to provide first aid when or when they see someone else injured. Meanwhile, according to the World Health Organization (WHO), it is known that injuries cause 5.8 million deaths worldwide, and injuries to children have become a public health problem whose incidence continues to increase and requires high attention. Injuries worldwide are responsible for approximately 950,000 deaths each year in children under 18 years of age. Nearly 90% of them are unintentional. Around 230,000 deaths occurred in children aged 1-5 years. Every year, tens of millions of children require treatment for non-fatal injuries, and many suffer lifelong disabilities (WHO, 2014).

Likewise, the 2018 Riskesdas results reported that 58.9% of injuries frequently occurred in children aged 5-14 years, namely at home and in the environment. Injuries at school also often occur in children as much as 18.5% and on the road as much as 17.4%. Places that feel safe and comfortable (home and school) are not necessarily safe from danger (Fitriana, 2022). It is a matter of greater concern apart from adults, namely parents and teachers. Children themselves need to understand how to provide first aid when injured or when children see other people injured. In this case, we will teach you how

to provide first aid when injured using the RICE (Rest, Ice, Compression, and Elevation) method. With the hope of reducing injuries to children, which will become emergency cases that cause serious injuries and even death because injuries are not treated properly.



Figure 2. Filling out the question and answer sheet

- ✓ Explaining the Material : We explain the material at the same time as explaining the material contained in the leaflet which we will later give to participants so they can repeat the material after the community service is complete. The material we present is:
 - ❖ Definition of first aid
 - ❖ The importance of first aid in the event of an injury
 - ❖ The purpose of first aid
 - ❖ Various types of injuries
 - ❖ Examples of cases where someone was injured
 - ❖ RICE method in carrying out first aid for someone who is injured
 - ❖ First aid steps using the RICE method for injured people
 - ❖ Procedures for providing first aid using the RICE method when injured
 - ❖ Benefits and consequences if first aid is not immediately provided when injured using the RICE method.



Figure 3. Material leaflets will be distributed to participants after the material is delivered.



Figure 4. Providing material regarding First Aid for Injuries using the RICE Method as well as leaflet explanations

- ✓ Demonstration of First Aid When Injured using the RICE Method : The demonstration method is a way of presenting lessons by demonstrating or demonstrating to students a particular progress, situation, or object being studied, either actually or imitation, which is often accompanied by an oral explanation. With the demonstration method, the process of students' acceptance of the lesson will be more profound, thereby forming a perfect understanding (Endayani et al., 2020). Some of the tools that will be used are hands last, betadine, gauze, and compresses. We first introduced the tools to the participants as well as the uses of each tool. The participants responded well to this, increasing children's curiosity. Likewise, the presenter demonstrated First Aid When Injured using the RICE Method. In fact, even

without carrying out orders, the children immediately imitated the demonstration to their friends.

The speaker also gave the opportunity to 2 children who dared to come forward to repeat the demonstration of First Aid When Injured using the RICE Method to their friends. After the child dares to demonstrate, the presenter gives a reward as a form of appreciation for the child's courage and intelligence in understanding the material well. So many other participants even helped in correcting their friends' mistakes when performing the demonstration in front. It shows that the material was well received and could be understood by a group of grade 1 and 2 children at the Singapore Indonesian School (SIS).

✓ Provide Q&A : The class atmosphere can be controlled by the presenter. We gave several questions and answers to other participants. With several questions as follow:

- a) What is the purpose of first aid when injured?
- b) What does the RICE method stand for and mean in first aid when injured?
- c) Why is it necessary to apply compression in first aid when someone is injured?
- d) What is done in the Elevation step?
- e) Why does an injured person need to have his legs elevated above heart level?
- f) What tools can be used as a medium for providing first aid when injured?
- g) Mention the types of cases that require first aid when injured using the RICE method!
- h) What are the benefits of using betadine in providing first aid when injured?
- i) What are the consequences if an injured person is not treated immediately?
- j) What steps do you need to take if you see someone injured?

From this question, many participants even scrambled to answer. Participants were very enthusiastic about receiving several questions so that they could provide the correct answers. The speaker also gave a reward to anyone who could answer correctly. We are very proud of the various positive responses from the participants that children well received the material we presented. After that, we distributed leaflets in the hope that children could repeat and remember the material we had presented the day. The knowledge can be useful when a child sees or experiences an injury at school or elsewhere and can provide first aid using the RICE (Rest, Aice, Compression, and Elevation) method.

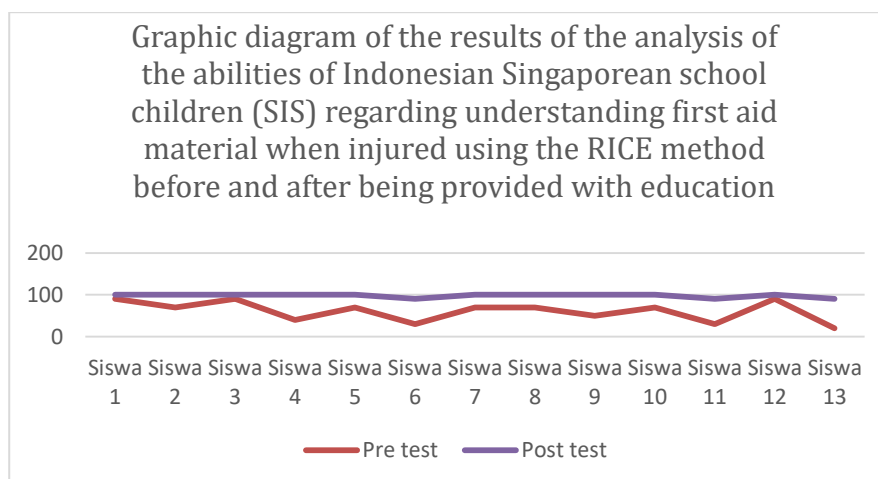


Figure 5. Results of analysis of children's abilities regarding understanding first aid material during injury using the RICE method before and after being provided with education

		Pre Test	Post Test
N	Valid	13	13
	Missing	0	0
Mean		60.77	97.69
Median		70.00	100.00
Std. Deviation		24.311	4.385
Minimum		20	90
Maximum		90	100

The results of providing First Aid Education for Injuries to Children using the RICE Method at the Singapore Indonesian School (SIS) on children's ability to understand the material in the table above prove that before being given education by the presenter, the child's average ability score was 70. After being given education, the middle score increased to 100. It is proven that providing education can increase children's knowledge by 30 about First Aid for Injuries using the RICE Method. It shows that elementary school children generally know how to provide first aid when injured. It is in line with research conducted by Utami in 2019, which explained that school children's knowledge regarding the risk of injury was at good levels. School-aged children are able to understand conditions that threaten their health in accordance with the stages of cognitive development of school children. In contrast, at elementary school age, they already have good cognitive abilities for concrete and real things such as injuries (Fitriana, 2022).



Figure 6. Documentation

CONCLUSION

First Aid Education Activities for Injuries in Children using the RICE Method at the Singapore Indonesian School (SIS) on 13 – 20 May 2024 were carried out well. Participants can contribute well during community service activities and can receive educational material that is delivered actively and in line with expectations. So many participants had high curiosity during the demonstration activities. It is hoped that with this activity, participants can increase and improve their knowledge, insight, and skills in providing first aid for injuries. It can be seen from the participants' abilities and the results of the analysis after and before education, which increased by 30 (from the average pre-test score before education was 70, and after education, the average post-test score was 100). It is hoped that participants will pass on this information and even put it into practice if they know or are injured so that this can be used as an effort to prevent injury by increasing the information that participants have obtained from the presenters regarding First Aid Education for Injuries in Children using the RICE (Rest, Ice, Compression) Method. , Elevation). Thus, the application of the RICE method in treating injuries can be an effort in first aid to prevent more serious injuries.

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