

## First Aid Training for Elementary School Teachers at SD Genta Saraswati Gianyar

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### ABSTRACT

SD Genta Saraswati is a private elementary school located in the center of Gianyar City. Based on initial interviews, it was stated that teachers encountered many student conditions that required immediate treatment, such as sprains, wounds, stomach aches, fevers, nosebleeds, and other conditions. For this condition, teachers have provided simple treatment, but there is still minimal understanding and skills in providing first aid for children's accidents at school. The aim of this community service activity is to empower partners in providing first aid for children's accidents at school. The method of implementing the program is carried out through socialization, training, assistance with first aid equipment, mentoring, and evaluation of activity results by fully involving partners. This program involved 16 participants, consisting of teachers and staff at SD Genta Saraswati. After delivering the program, participants' knowledge increased, which can be seen from the increase in the average pre-test score from 6.56 to 9.06 ( $p < 0.05$ ). After carrying out practical training in providing basic life support and first aid in accidents, it was also seen that the participants were able to practice how to provide first aid in accidents that occurred at school. By carrying out this activity, it is hoped that teachers and staff at SD Genta Saraswati will be able to provide first aid independently for accidents or illnesses that occur at school.

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### ARTICLE INFO

#### **Article History:**

*Submitted/Received 31 Jul 2024*  
*First Revised 9 Sep 2024*  
*Accepted 10 Sep 2024*  
*First Available online 21 Oct 2024*  
*Publication Date 21 Oct 2024*

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#### **Keyword :**

*First aid*  
*Training*  
*Teachers*

## INTRODUCTION

Accidents can occur anytime and anywhere, such as on the road, at home, at the workplace, or at school (Najihah & Ramli, 2019). The most common places where injuries occurred were on the street (45%), followed by at home (30%) and school (16%) (Ishak & Al-shamahy, 2021). Children spend most of their time at school. They participate in many activities that have the potential to cause injury. Playgrounds are the leading location for school injuries, accounting for one-third of all elementary school injuries (Kennedy et al., 2024; Wong et al., 2019).

The incidence of school-related injuries was 2.3% per year. Most of the injured students were in grades 1–4 (63.7%), and 72.6% were boys. Improper school equipment and furniture accounted for 25.3% of injuries. The three most common mechanisms causing injury were falling (50.4%), collision with an object (30.7%), and collision with a person (18.8%). Asphalt (59.5%) and concrete (40.5%) were the most common surfaces in the school environment to contribute to injuries (Al Zeedi et al., 2020).

Accidents often happen to a person or group of people in daily life (Lafia et al., 2021). Accidents generally occur suddenly, without warning, and the consequences vary, ranging from minor to moderate, severe injuries, and even death. Accidents that occur in schools are very diverse, such as children slipping, which causes lacerations or bruises, food poisoning, choking on food, fainting, and so on. According to studies, distal radius fractures and lacerations were the most common moderate or severe injuries in school accidents referred to the emergency department (Özdemir et al., 2022).

It is not uncommon for accidents to result in serious conditions. In case of an accident at school, students should be able to provide first aid. Very often, the first aid given to victims results in more serious injuries or fatal conditions. Therefore, when assisting, it is necessary to know the correct procedures for providing assistance. The facts in the field are often found to be groups of people who are insensitive and tend to be reluctant to assist if they encounter an accident for various reasons. It is essential to be able to help a person in such a situation by giving them first aid before medical help arrives. Through this, it is possible to prevent the death of the victim. (Hosapatna et al., 2019; Zideman et al., 2021).

First aid is the initial care for an acute illness or injury (Zideman et al., 2021). There are multiple goals of first aid, including preventing death or serious disability, preventing further injury or illness, and facilitating recovery. Some key principles of first-aid provision include recognizing, assessing, and prioritizing the need for first-aid care. First aid has to be done using appropriate competencies based on the most optimal available evidence. Another important aspect of first aid is recognizing its limitations and seeking additional care, such as activating emergency medical services or other medical assistance. Compared to other medical interventions, a unique characteristic of first aid is its universal nature. It can be learned and applied by anyone in any situation that requires first aid, including self-care (Vermonden et al., 2023; Zideman et al., 2021).

Elementary school students aged between 6 and 12 years are an age group that still wants to always be active because, at that time, children have excess energy that can be channeled through movement. Large or small accidents often occur when playing, which sometimes causes panic in the school. For this reason, the teacher, as the first person responsible, is expected to be able to provide first aid so that worse consequences do not occur (Arlı & Yildirim, 2017; Olmos-Gómez et al., 2021; Vermonden et al., 2023).

Knowledge and skills of first aid in accidents are important because they teach basic techniques for rescuing victims from various accidents or daily disasters that are commonly encountered (Zideman et al., 2021). With proper preparedness in the form of training in providing basic life support, it is hoped that response efforts can be faster and more precise to minimize the number of victims and damage. Because, in their hands lies the success of developing and fostering very important community participation aimed at creating an optimal level of public health (Vermonden et al., 2023).

SD Genta Saraswati Gianyar is an elementary school in central Gianyar Regency, Bali. Based on an interview with the principal at SD Genta Saraswati, it was stated that teachers encountered many conditions that required immediate medical response, such as sprains, wounds, stomach aches, fevers, nosebleeds, and other conditions. The teachers have provided simple treatment for this condition in accordance with the available facilities. The teachers have never received training in first aid for school accidents. This program aims to increase the knowledge and skills of teachers at Genta Saraswati Elementary School in providing first aid for school-related accidents.

## METHOD

This activity was carried out in February 2024 in one of the classrooms at SD Genta Saraswati Gianyar. The methods used to achieve the objectives in this activity are:

1. Increase partner knowledge and skills  
Partners are educated about how to properly and correctly manage and monitor drug use, as well as education about first aid for children's accidents at school. Education is provided through lectures and questions and answers. Knowledge was measured using a pretest and posttest before and after the lecture and question-and-answer session. The media used to give lectures is PowerPoint, accompanied by examples of interesting images.
2. Provide first aid packages  
Packages are given for each class so that they can be used immediately if conditions arise that require first aid assistance.
3. Provide assistance  
Assistance is provided by simulating the management and supervision of the proper and correct use of medicines and training in skills in providing first aid for children's accidents at school.
4. Conduct an evaluation  
This activity is evaluated on partners through pre- and post-test using a questionnaire containing true and false statements. The results of knowledge measurement are presented in the form of a frequency distribution. Knowledge is categorized into good, sufficient, and poor.

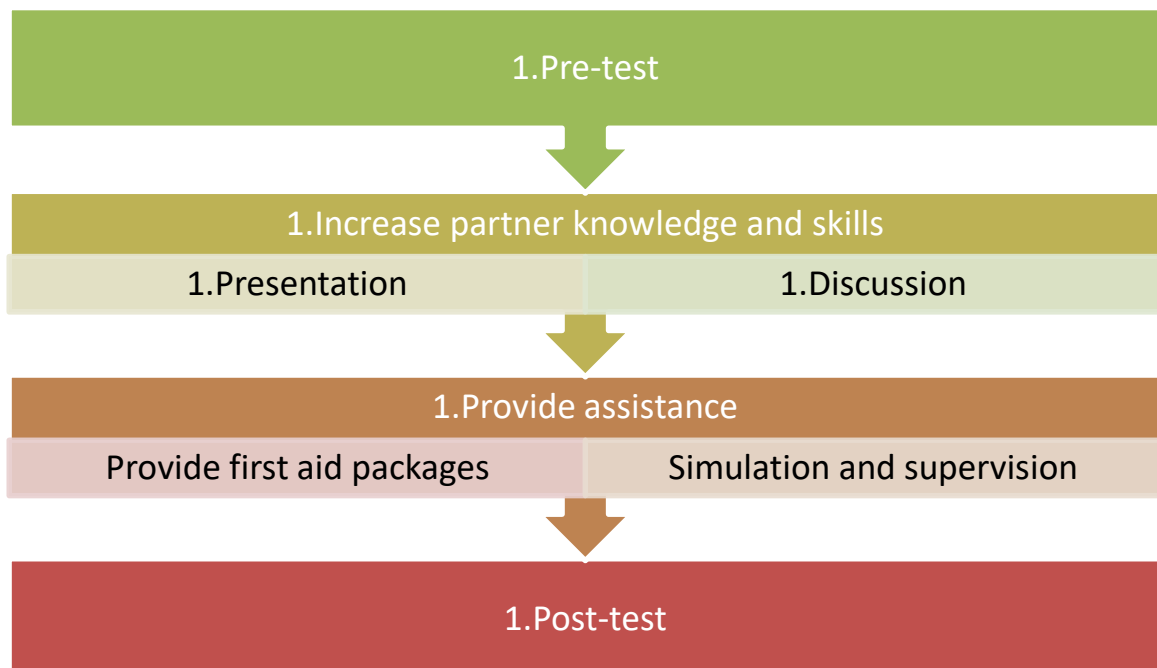


FIGURE 1. Method used in the activity

## RESULTS AND DISCUSSION

Preparation coordination begins with a meeting with the implementation team to divide each team member's tasks and start preparing for the program's needs. Coordination was also carried out with the principal at SD Genta Saraswati Gianyar. Based on the discussion, it was agreed that the activities would be carried out in several stages.

This first phase of activity was carried out on February 16th, 2024 in one of SD Genta Saraswati's classrooms. A total of 16 teachers and administrative staff attended the activity. The activity begins by pre-testing the participants before the material is presented. The pre-test consists of 10 questions regarding providing first aid for illnesses and accidents that occur at school. The presentation of the material is carried out after the pre-test has been completed and collected by all participants. The material was presented for approximately 50 minutes, followed by a discussion and question-and-answer session. Participants enthusiastically participated, as evidenced by several questions they asked about the material presented.



**FIGURE 2.** First aid education to teachers and staff at SD Genta Saraswati Gianyar

The next stage of activities was practicing and simulation, providing basic life support, which was carried out on March 2<sup>nd</sup>, 2024, at school hall. Practical and simulation activities were accompanied by delivering first aid packages to the principal of SD Genta Saraswati Gianyar. Training and simulations were provided to the teachers and staff at SD Genta Saraswati Gianyar to provide participants with an overview of first aid and experience in cases of accidents or illnesses at school. The training was guided directly by a pediatrician, who was also a team member in this activity. The training provided is in the form of practice in providing basic life support using several case examples as simulation material. Practices are carried out using mannequins, tools, and equipment borrowed from the Clinical Skills Laboratory Faculty of Medicine and Health Sciences, Universitas Warmadewa. In this activity, participants try to practice the actions that the pediatrician has demonstrated.



**FIGURE 3.** Basic life support practice for teachers



**FIGURE 4.** Simulation of splint installation



**FIGURE 5.** Basic life support practice with participants

Before training, the team performed a pre-test. The average participant's understanding was 6.56. Participants who attended listened and were quite enthusiastic about listening to the education provided by the Team. The counseling was conducted for approximately 50 minutes, followed by a discussion session. After the outreach activities were carried out, most participants began to understand how to provide first aid for accidents or illnesses at school. This understanding can be seen from the post-test results, which showed an increase in the average understanding of participants with a value of 9.06. The difference in the mean pre-test and post-test scores is quite significant, with a  $p$ -value  $< 0.05$ .

Knowledge of first aid in accidents by elementary school teachers is very essential because knowledge of handling accidents at the scene will help show how the teacher's response can save the lives of an elementary school student. Community service to elementary school teachers about first aid can improve teachers' knowledge and abilities to carry out first-aid measures for children in elementary schools (Kurniawaty, 2019; Rosidawati et al., 2020). Apart from first aid measures, teachers' knowledge and skills in providing basic life support, dressing and splinting, and handling bleeding can also be improved through similar training (Nurul Huda et al., 2021; Yoshima Nekada & Wiyani, 2020). First aid is also needed for students who have had sports injuries. Sports injuries can occur due to trauma, force, technical errors, physical limitations, and sports equipment (Hartono et al., 2018). Sports injuries involve tears in soft tissue such as fascia, muscle fibers, and ligaments. Teachers must have first-aid knowledge and skills to deal with these incidents to minimize the increase in the severity of injuries (Aliftitah et al., 2023; Febriyanti et al., 2024).

## CONCLUSIONS AND RECOMMENDATIONS

After conducting outreach and training activities, participants understand how to provide first aid for accidents and illnesses that occur at school. Participants actively participate in discussions and simulations. Partners are expected to be able to independently provide first aid for accidents or illnesses that occur to students at school.

## ACKNOWLEDGMENTS

We want to thank all parties who have helped during the program and prepared this article, so that it can be completed well. We also expressed our gratitude to the Faculty of Medicine and Health Sciences Warmadewa University for the resource support that has been provided and to SD Genta Saraswati for providing permission and facilitating this program.

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