

## STUDENT OPTIMAL SIMULATION (SOS) : FIRST AID EDUCATION IN CHOKING CASES AT SCHOOL INDONESIA SINGAPORE (SIS)

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### ABSTRACT

*First aid in child choking is an essential skill that everyone should have, especially children who are a vulnerable group to choking events that can be fatal. This study aims to analyze the educational strategies of grade 2 children at Sekolah Indonesia Singapura (SIS) in dealing with choking situations. The service method includes delivering material through interactive lectures, practical demonstrations, and role plays. The intervention results showed increased children's knowledge and skills in recognizing signs of choking and appropriate first aid steps. This condition reinforces the importance of early first aid education in reducing the risk of accidents in children. These skills can also be applied in the surrounding environment, including at home and in public places. Children's education strategies effectively improve children's safety in dealing with choking events.*

**Keyword:** Simulation, First aid, Chocking

### INTRODUCTION

The simulation method is a learning model in which children act and play as if they are playing someone or something. It can improve their social skills because simulation trains them to interact with others (Fiftario 2020). Choking is an emergency that requires immediate treatment, especially in children who are vulnerable to small objects that can enter their respiratory tract, which risks causing dangerous conditions because they can experience breathing difficulties and potentially cause death if initial help is not immediately given (Umar et al. 2022). It can happen to anyone, from infants and children to adults. Although most cases of choking can be avoided, the reality is that this incident still often occurs in various environments, whether at home, school, or other public places (Aty and Deran 2021; Linda and Kesumawati 2023).

Common signs of choking are inability to speak, difficulty breathing, choking-like breathing, shrill sounds when trying to breathe, coughing, blue skin, lips, and nails, and loss of consciousness. School is one of the community environments in which many people gather (Agusman et al. 2024; Azizah et al. 2023a). The school community must be able to prepare themselves to perform initial aid when a choking emergency occurs (Doliarn'do et al. 2018).

World Health Organization (WHO) (2011) stated that around 17,537 children aged three years or younger experienced dangerous situations due to choking; 59.5% of choking events were caused by food, 31.4% were caused by choking on foreign objects, and 9.1% of other causes were unknown (Pandegirot et al. 2019). The prevalence in the United States of choking cases in children under four years of age was 710, occurring in children under the age of 1 year at 11.6%, cases occurring at the age of 1 to 2 years at 36.2%, occurring at the age of 2 years to 4 years by 29.4% (Evi et

al. III Study of Bina Insan Nursing Academy Jakarta 2023). Data from the National Department of Health shows that the cause of choking is foreign bodies of seeds in 105 patients; 82 patients choked on foreign bodies of nuts, vegetables 79 patients, others choked due to metal, food, and fish bones (Sukmandari et al. 2022).

Appropriate first aid can play an essential role in preventing severe complications such as aspiration and respiratory tract obstruction. However, many children, parents, and caregivers need sufficient knowledge or skills to handle these situations effectively (Awaluddin et al. 2023). This community service article is an educational strategy for grade 2 children at Sekolah Indonesia Singapore (SIS) in dealing with choking situations and the extent to which the strategy is efficacious in improving children's knowledge and skills in first aid handling of choking cases (Trifianingsih and Anggraini 2022).

Counseling and training are important efforts to improve children's knowledge and skills, especially through a teaching approach that involves listening and imitation activities. Research has shown that basic life support training can affect students' knowledge and skills (Setyaningrum and Rejecky 2019). This community service activity aims to increase children's knowledge and skills in recognizing signs of choking and providing appropriate and safe first aid. Thus, it is expected to reduce children's risk of choking accidents.

#### **ACTIVITY METHOD**

The community service was held at Sekolah Indonesia Singapore (SIS) on Tuesday, May 14, 2024. The target of this activity is school-age children who have a risk of choking problems (Aty and Deran 2021). The learning method for helping children when choking begins with introductions and an explanation of the purpose of the activity and the time contract. After that, provide worksheets that measure children's knowledge before starting the material presented (Azizah et al. 2023b).



Figure 1. The worksheet distribution process for Sekolah Indonesia Singapore (SIS) students



Figure 2. The process of explaining the worksheet questions that students will complete



Figure 3. Simulation process of first aid role play when choking

The results of the worksheets that have been done are collected, and then we start learning the material by discussing what choking is, how we recognize the symptoms, what should be considered, and how to help people who are choking. The stages of activity implementation are depicted in the following illustration:



After that, the activity continued by demonstrating how to help people choke with the target of all children—and appointed two children in pairs to give examples in front (Rafi et al. 2024). At the stage of memory stimulation and competency achievement, in order to encourage the children to perform and become more enthusiastic, the distribution of bravery prizes and the distribution of prizes for all

students was carried out (Azizah et al. 2023c). This method is very effective in inviting children to dare to perform and be able to practice how to first aid when choking correctly and safely.

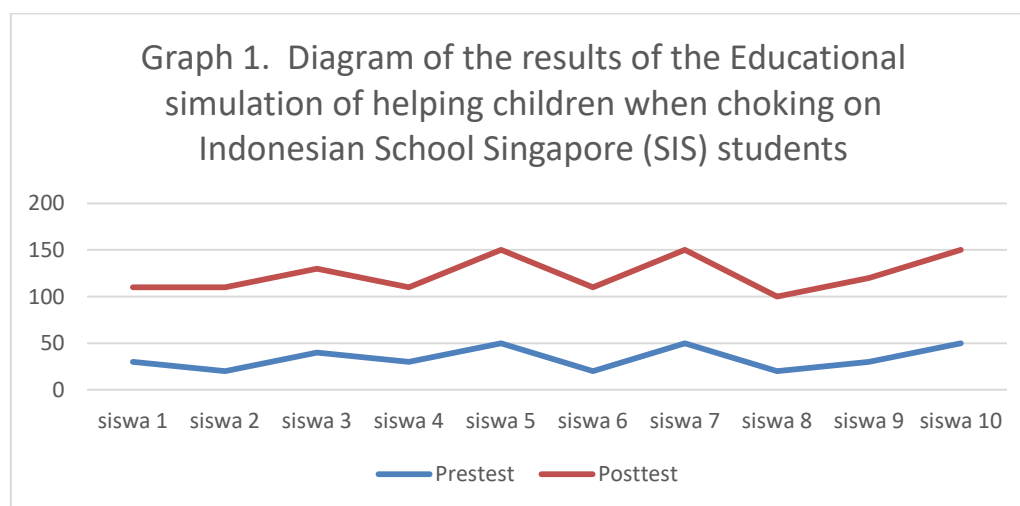
Then, we repeated the explanation of the choking material using the X-banner media SOS method (HUDA and Siswoaribowo 2022). We dedicatedly explained the causes and first aid steps to be taken in the situation. Students paid severe attention, noting the important things they learned on their worksheets.

After the explanation was complete, a quick role-play example of how to provide first aid when a child is choking was shown. Some students were asked to play the roles of rescuer and victim. They quickly practiced what they had learned. Then, as a reward for their courage and participation, prizes were given to students who did well in the role-play.

The purpose of the role-play simulation for children is to allow them to practice first aid correctly and safely and to see the understanding that has been presented. This role-play simulation stage is expected to increase the willingness and enthusiasm of children to learn and pay attention to first aid when choking. After the simulation activity, an evaluation is continued to ensure students' understanding of the material taught. They are invited to ask if anything needs to be understood and give feedback about the day's activities. This activity certainly positively impacts children, adding broad insights about first aid when choking correctly and ama. After community service, the banner will be attached to the class so that children can remember and practice it.

## RESULTS AND DISCUSSION

This community service activity uses pretest and posttest for final evaluation. The results of the pretest and posttest scores are listed in the Graph 1.



The simulation model is an approach that has proven effective in learning (Fiftario 2020). Simulation models allow participants to learn from real experiences without having to experience the actual consequences. In this way, they can improve their knowledge and skills. This theory is consistent with the results observed in this community service activity, where children can improve their understanding and abilities through first aid simulation.

Teaching strategies that emphasize playing while learning have proven



effective in attracting the interest and attention of participants, especially children. This approach makes learning more fun and interactive. Opinion from (Wahab, A.A. 2012). states that simulation play allows participants to assume specific roles and compete to achieve specific goals, thus increasing learning engagement and motivation. In this community service activity, first aid simulations have increased children's enthusiasm and active participation in learning.

Learning about first aid for choking has a significant impact on students of Sekolah Indonesia Singapura (SIS), especially in improving their readiness to face emergency situations. In addition, it provided extensive practical knowledge of first aid techniques and created greater confidence in dealing with choking emergencies.



Figure 4 Q&A process during class



Figure 5. Prize distribution process for all Indonesian School Singapore (SIS) students

Students participate in a simulation session and a question-and-answer process during a class on first aid for choking children. This activity aimed to introduce choking first aid simulations, such as the Heimlich maneuver, the back pat method, and how to call for emergency help while increasing their enthusiasm for learning and active participation.

The group energetically started the session with an in-depth explanation of the various first aid techniques. They underlined the importance of this knowledge and skills in emergencies. Through clear explanations and visual examples, the students began to understand the steps required to provide first aid. The simulation also included exercises on how to call for emergency help. The students actively practiced this, ensuring they could communicate calmly and clearly in a real emergency.

Constructive feedback was provided during the simulation, helping the students continuously improve their skills. Their support and experience made the simulation an immersive and interactive learning experience.



Figure 6. Group photo with SMI Youth Exchange Team and students of Sekolah Indonesia Singapore (SIS).

## CONCLUSION

The Student Optimal Simulation (SOS) of first aid education on choking at Sekolah Indonesia Singapore (SIS) significantly increased knowledge and skills. Through the simulation approach, children can improve their knowledge, skills, and confidence in dealing with emergencies such as choking. The support provided by the teaching staff and school institution is also crucial to the success of this program in improving students' knowledge and preparedness for emergencies. Despite the challenges of limited practical experience, the program still provides significant benefits in shaping ready and responsive students to emergencies. Moreover, first aid education is not only relevant in the context of extreme emergencies but also beneficial in everyday life. Children become more prepared and skilled in providing first aid, which can be the difference between life and death for victims in an emergency. Thus, integrating first aid education into the school curriculum is essential in shaping a generation that cares and is ready to help others. A more structured program implementation and adequate training facilities will further support the success of this learning. Thus, students will be more prepared and responsive in dealing with various emergencies that can save lives and reduce the risk of more severe injuries.

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