

THE EFFECTIVENESS OF THE COMBINATION OF DEMONSTRATION AND ROLE-PLAY METHODS TO IMPROVE KNOWLEDGE ABOUT CHOKING MANAGEMENT

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Abstract

The child mortality rate increases yearly, and 57 are due to a lack of understanding of the general public about first aid for choking patients. This study aims to determine the effectiveness of the combined demonstration and roleplay method in increasing knowledge about choking management in junior high school students. This study used a quasi-experimental research design with a non-equivalent control group design. The sampling technique used purposive sampling with a sample of 60 junior high school children, consisting of 30 intervention and 30 control groups. The results showed that the Demonstration and Role Play methods effectively increased choking management in junior high school students with a p-value of 0.001. Meanwhile, the control group who was given education with leaflets showed a p-value of 0.004 which means there was also a significant effect after the action was presented. This study shows that providing health education through a combination of demonstration and roleplay methods is proven more effective in increasing knowledge about choking management in junior high school students than the standard method through leaflets.

Keywords: Chocking, Demonstration, Role Play, Knowledge, Junior High School Students

Introduction

Choking is an emergency condition that requires immediate treatment. Choking can be caused by a foreign object in the respiratory tract that blocks oxygen from entering the body, resulting in death (Suartini and Supardi, 2020). Food, coins, toys, and other foreign objects often cause choking. Based on data from the World Health Organization (WHO) in 2011 states that the incidence of choking has increased significantly, reaching 17,537 people. The prevalence of choking based on the cause, such as choking due to food, earned 59.5%; choking due to foreign bodies reached 31.4%; and choking with no known cause reached 9.1% (WHO, 2010). Meanwhile, according to data from the Indonesian Ministry of Health (2018), the incident in Indonesia itself explained that cases of choking events that came to the Emergency Unit (ER) reached 12,400 people at the age of approximately 14 years from 2001 to 2009.

Another opinion, according to Hopkins in 2014, said that as many as 57 children die each year due to a lack of understanding among the general public about first aid for choking patients (Sumarningsih, 2015). First aid given to individuals who experience choking according to standards will increase success, and survival rates can reach 95% (Tomi, 2020). So adequate knowledge and skills related to choking management are needed by all communities, especially school children. School-age children are significantly at risk for stopping events; food, toys, and coins can cause choking events. Choking is the leading cause of injury and death in children. Many cases of choking occur in schools when children are playing and eating. So, with so many instances of choking, the American Academy of Pediatrics made a policy of cardiopulmonary resuscitation and first aid to be taught to parents, teachers, and childcare providers (Ernawati, Muflihatin, and Wahyuni 2021). In addition, efforts that can be made to prevent death in school children are to increase the knowledge and abilities of students and teachers regarding handling choking.

The Indonesian Ministry of Health (2018) states that individuals, groups, and the general public need to gain knowledge and skills in providing accident assistance to children, especially in the school environment. Skills can be formed through training with various media. The more media used, the higher the quality of expertise and retention of knowledge. One

of the effective media used to provide information and skills, especially for teenagers is d, demonstration media and roleplay. Educational media using the demonstration method has proven to be effective in increasing knowledge because this method uses teaching aids that can make the respondent seem to be helping the real victim, and the participants are guided directly by a competent trainer. In addition, using the demonstration method, five more senses will be used to obtain more information and skills (Rahayu and Anggeriyane, 2022). However, the role of the trainer is still very dominant for this method because it is only a means for demonstrating skills, so a supporting method is needed, namely roleplay. The role-play method is one simulation method whose implementation involves more than one sense. In role-playing, students are required to play an active role, so they gain experience from it. This method can enhance discussion, practice skills, experience, and feel a particular event. Through real-life role-playing situations, people will more easily understand the causes of their problems and the results of their behavior (Rahayu and Anggeriyane, 2022). The role play method can increase the knowledge and actions of school-age children about first aid in emergencies (Saputra et al. 2019)

Methods

This research was conducted using a quasi-experimental design to determine the causal relationship between treatment and outcome with a non-equivalent control group design, in which two experimental groups were given different treatments. The sample in this study was observed before being treated; after being given treatment, the sample was observed again (Rogers and Révész 2020).

This research was conducted at SMP Darul Arqam Makassar City with a research sampling technique using non-probability sampling with purposive sampling technique or judgment sampling, namely the sampling method is done by selecting samples that meet the research criteria for a certain period so that the number of samples is met (Hidayat, 2008). The inclusion criteria in this study were a) junior high school children, b) adolescent patients, c) understanding of Indonesian, d) patients who can read and write, and e) ability to work together in a team. While the exclusion criteria are a) respondents with hearing loss and b) respondents who did not follow all stages of the study. The sample size was 30 respondents for the intervention group and 30 for the control group. This research has obtained the ethics test process number 5458/S.01/PTSP/2022 by the pelamonia

Data collection used an instrument in the form of a knowledge questionnaire on the prevention and treatment of choking developed by Panji (2019), which was given during the pre-test and post-test (Panji 2019). The analysis in this study uses the appropriate test and two variable measuring scales, namely the paired t-test, if the data usually is distributed. In contrast, the Mann-Whitney U test is used if the data distribution is not normal. H_a is accepted if $p < (0.05)$. To facilitate the calculations, the researchers used a computerized program Statistical Product and Service Solution (SPSS) for windows version 22.0 with the following provisions; if the p-value $< (0.05)$, then H_a is accepted which states that there is an effect of giving a combination of demonstration and role play methods in increasing knowledge about choking management in junior high school children. The increase in adolescent knowledge about choking was assessed using a structured questionnaire consisting of 18 question items in the form of multiple choice (multiple choice) with four choices. If the answer is correct according to the answer key, the score is 1. The criteria limit is high if the score is 12-18, moderate if the score is 7-11, and low if the score is 6.

Results

The research implementation process has been carried out using a quasi-experimental design method to determine "The Effectiveness of the Combination of Demonstration and Role Play Methods to Increase Knowledge about Choking Management in Junior High School Children." The model in this study uses two pretest-posttest design groups, namely the intervention group (provided with choking management education through the Combination Method of Demonstration and Role Play) and the control group (given standard education through leaflets). A total of 60 respondents participated in this study consisting of 30 people in the intervention group and 30 in the control group. Based on the results of the research, the results and analysis are as follows:

Table 1. Middle School Student Demographic Data (N= 12)

Demographic Data		Group				Total	
		Intervention		Control		n	%
		n	%	n	%		
Gender	Male	12	40	10	33.3	22	37
	Female	18	60	20	66,7	38	63
Age	12 Years Old	18	60	16	53	34	57
	11 Years Old	1	13	0	0	1	1,6
	10 Years Old	11	36	14	47	25	41,4
Class	Kelas VII	30	100	0	30	60	100

Based on the table above, it can be concluded that the gender categories in the intervention and control groups were mostly women, with a total of 38 people (63%) in both groups and 22 men (37%). Meanwhile, for the age category, both the intervention group and the control group, most respondents were aged 12 years, with a total of 34 people (57%) and 25 people (41.4%) for the age of 13 years and 1.6 percent for the age of 11 years. Furthermore, in the class category, all respondents are in class VII, with 60 people (100%).

Table 2. Normality Test Results for the Intervention and Control Group

Group		<i>P Value</i>
Intervention	Pre	0.289
	Post	0.050
Control	Pre	0.001
	Post	0.040

The normality test results were carried out by looking at the results of the Shapiro-Wilk test because the data used between groups was less than 50 people. Based on the table above, it can be concluded that all data are not generally distributed except for data in the pre-intervention group. So it can be supposed that the hypothesis test to be carried out is a non-parametric test.

Tabel.3 Comparison of Intervention and Control Groups (Pre and Post)

Group		Min-Max	<i>P Value</i>
Intervention	Pre	08-12	0.001
	Post	13-21	
Control	Pre	08-14	0.004
	Post	08-16	

Wilcoxon Rank Test

Based on table 3. above, it can be concluded that the comparison of the intervention group at pre and post shows that p-value of 0.001, which means that there is a significant effect after being given educational actions through the Combination Method of Demonstration and Role Play. Meanwhile, the comparison value of the control group at pre and post shows a p-value of 0.004 which means that there is also a significant effect after being given educational actions

through leaflets. Finally, the average min-max value in the intervention and control groups showed that the intervention group had a higher and more significant deal of change and development than the control group.

Table 4. Comparison of Intervention and Control Groups (Post and Post)

Groups	Mean	Min-Max	P Value
Intervention	42.23	13-21	0.0001
Control Post	18.27	08-16	

Mann Whitney Test

Based on table 4 above, it can be concluded that the comparison between the post-intervention group and the post-control group shows a p-value of 0.0001, which means that there is a significant difference between the intervention group and the control group.

Discussions

Choking management is education and training to increase knowledge about handling choking (choking) to be better prepared to deal with and handle choking incidents around (Purwitaningtya, Nuzula, and Prayitno 2019). Stifling management education has been shown to provide significant results in the level of knowledge, improve social skills, provide an understanding of the importance of handling choking, and, most importantly, prevent choking deaths (Mulyani and Fitriana 2020).

Health education media is currently one of the references to gain knowledge and skills related to choking, especially for junior high school students. However, health education media have advantages and disadvantages, so they need to be compared to determine what media is suitable for students (Khoiro and Akhwani 2021). One of the media that is proven to improve students' cognitive, affective and psychomotor abilities is educational media by applying a combination of demonstration methods and role play (Yuliani, Huriyah, and Primanda 2017). The demonstration and role-play methods provide students an opportunity to see and play a direct role during education (Nurliana Mansyur, Budu 2015).

Various health education media are used to increase knowledge about choking management, one of which is through role-playing and demonstration methods. The service team demonstrated how to handle choking using puppets (phantom). Participants practiced or role-played at home with existing facilities such as dolls, then continued by watching videos to strengthen their understanding of how to handle choking. The activity was assessed based on the increase in the percentage of pretest-posttest results that improved teachers' knowledge and skills in handling choking (Ernawati et al. 2021).

Role play or role-playing is highly efficient, attractive, and cost-effective. The increase in empathy scores in the training program among operating room nursing students in Iran evidences this. Students are more familiar with empathy which encourages them to pay attention to the human dimension because they have directly participated in playing with the patient's condition (Mak, Sandhu, and Krishnan, 2020). Al-Khalifa & Nazir (2020) also support the roleplay method through their research which reveals that the role-play method is one of the most preferred educational media in the field of health sciences. In addition, this method has various advantages, namely motivating students, understanding the concepts given in educational activities, and improving interpersonal skills and teamwork (Al-Khalifa and Nazir 2020).

In addition, the demonstration method is an educational medium with the practice of demonstrating to students (Salim Nahdi, Yolanda, and Agustin 2018). This method can improve interaction and focus students on the material provided. The successful implementation of this method can be seen in Gafur's research (2018) which revealed that student learning outcomes increased by using the demonstration method. Then the use of the demonstration method increases student curiosity, enthusiasm in doing assignments on time, and students are able to apply every day. As a result, they are happy and happy during the educational process (Gafur 2018).

Increasing students' knowledge can be done by applying an exciting learning method, namely role-playing so that students will be actively involved directly in the process of providing material and are supported by demonstration methods by using teaching so that students become more understanding. Karla, 2019). These two methods are solutions that are

applied to improve student learning abilities. One example of research that supports the combined method of demonstration and role-plays is the research of Anam et al.(2020) on students' ability to understand mathematics. The media used is Abacus or abacus, which is a counting tool; in this case, students apply the role-play method actively and independently using media both for addition, subtraction, and even mixed calculations, and the teacher participates by giving examples and showing the steps for using the media using this method. Demonstration. This can increase the standard of learning between students and teachers. Even students can count without media by imagining it (Anam et al., 2020).

Based on the research that has been done and supported by several other studies, it can be concluded that the provision of health education to children will be more effective and optimal when using media or assistive devices, namely a combination of demonstration and role play methods that have proven effective in increasing choking management knowledge in junior high school students. (Wowor and Gunawan 2016). This is reinforced by Paudi's research (2020) that this role-play learning model makes students actively involved in learning, so that teacher dominance is reduced (Paudi 2020), while Harfiani (2017) explains that the demonstration method makes student performance always increase, starting from activeness, increased interest and motivation to the point that attention to the material presented by the teacher has improved (Harfiani 2017) and is evidenced by the research of Purwitaningtya et al. (2019) that increasing knowledge of junior high school students in PMR activities about choking management is better after education through the demonstration method and role play.

Conclusions

Based on the research that has been done, it can be concluded that the provision of health education through a combination of demonstration and roleplay methods has proven to be effective in increasing knowledge about choking management in junior high school students. Therefore, the following research recommendation is to conduct education on different aggregates, especially for elementary school children.

Acknowledgment

Our gratitude goes to all parties who have contributed so that this research can be completed, particularly the Ministry of Education, Culture, Research, and Technology, which has been funding this research.

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