

THE EFFECT OF HEALTH EDUCATION ABOUT FIRST AID FOR CHOKING ON THE ABILITY TO PERFORM CHOKING ACTIONS

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ABSTRACT

Choking is a very dangerous emergency, because within minutes it can result in general or complete oxygen deprivation so that in just a matter of minutes the client will lose their breathing reflex, heart rate and permanent death from the brain stem, in other words the death of the individual. Until now, the risk of choking in children is still often found, and knowledge about first aid health education for choking is also still lacking. This study aims to determine the level of respondents' knowledge about first aid health education for choking and to determine the effect of health education about first aid for choking on the ability to perform choking actions at Tanah Sareal Health Center and Rangkasbitung Health Center. The design of this study is a Quasy Experiment with the approach used is one group pre-test - post-test. The research data are in the form of primary data (the level of knowledge of respondents regarding first aid for choking) and secondary data. The total number of respondents in this study was 20 children consisting of 10 boys (50%), and 10 girls (50%). The results showed that 11 respondents were unable to perform choking before being given health education. After receiving education, only 5 respondents were unable to perform choking actions. There was an effect between health education about first aid for choking and the ability to perform choking ($p < 0.05$). The conclusion of this study shows that health education about first aid for choking can improve children's ability to perform choking. It is hoped that schools can provide knowledge and understanding in performing first aid for choking so that children are able to perform choking correctly.

Keywords: Health Education, First Aid, Choking Action

INTRODUCTION

According to the World Health Organization (WHO), approximately 17,537 children aged 3 years or younger are at risk of choking, of which (59.5%) are related to food, (31.4%) are choked by foreign objects, and 9.1% are of unknown cause. (Committee on injury, 2010). The prevalence in the United States is 710 cases of choking in children under 4 years old, 11.6% in children under 1 year old, 36.2% in children aged 1 to 2 years old, and 29.4% in children aged 2 to 4 years old.¹

In Indonesia itself, according to data obtained from Dr. Harjono Ponorogo Regional General Hospital, Semarang City, in 2009, 157 cases of choking were found. These choking cases decreased in 2010 to 112 people (Medical Records of Dr. Harjono Ponorogo Regional General Hospital). Based on a survey from the Ministry of Health, these choking cases were caused by grains (105 cases), nuts (82 cases), vegetables (79 cases), and other causes include

choking due to metal, food, and fish bones.²

Choking is the blockage of the respiratory tract due to a foreign object, either totally or partially, causing the victim to have difficulty breathing and lack oxygen, and can even cause immediate death.

Choking is a very dangerous emergency, because in a few minutes it can result in a general or complete lack of oxygen so that in just a matter of minutes the client will lose their breathing reflex, heart beat and permanent death from the brain stem, in other words the death of the individual.⁴

Choking causes the airway around the throat (larynx) or trachea to become blocked. Airflow to the lungs is obstructed, cutting off blood flow to the brain and other organs. Therefore, effective first aid is essential to save a life.⁴

According to the characteristics of foreign object choking, which is dangerous for toddlers, the shape, size, and consistency of the object are specific, so it must be handled quickly and comprehensively with coordinated prevention. Some signs of choking include shortness of breath, no voice or hoarseness, and even no breathing. Toddlers will often clutch their necks, feeling as if they are being strangled, so it must be treated quickly.

Most children who frequently choke are between 0 and 3 years old. Ages 0-1 are considered infants, as they enter a phase where their mouths experience satisfaction and enjoyment from biting, chewing, and sucking (Suryabrata, 2006). At ages 1-3 (toddlers), children enter a period of intense curiosity, and ages 4-5 are their most active. Some of the most common foreign objects that cause choking are food, coins, balloons, and other toys. Early recognition of the signs of choking in mothers is the first step in treating choking by being able to differentiate between other illnesses such as asthma, heart attacks, strokes, or other conditions that cause respiratory problems.

Some signs such as shortness of breath, no voice or hoarse voice, wheezing, to not breathing, while at the age of toddlers will hold their necks that feel like they are choking, so first aid must be done quickly. ⁵ First aid that can be done to a child who is choking is the Sandwich Maneuver and Heimlich. Heimlich is asking the child to cough hard so that the foreign object comes out, if the child cannot speak yet ask him to cough again (Iskandar J, 2012).

According to data from the Centers for Diarrhea Control and Prevention, 34 children under five go to the emergency room every day due to choking. Fifty-seven children die each year due to not receiving adequate treatment for choking.⁸

Research conducted by Rovin (2013) found 12,400 cases of children under 14 years of age presenting to the emergency room (ER) for choking between 2001 and 2009. Another study by the Centers for Diarrhea Control and Prevention found that 34 children are taken to the emergency room (ER) every day for choking. Fifty-seven children die each year due to lack of adequate treatment for choking. 9

According to Sabrina (2008), half of adults don't know what to do to prevent a child from choking. Furthermore, a survey conducted by The Home Safety Council found that many Americans are unaware of the causes of choking, due to the mother's lack of education, lack of knowledge about child care, and a lack of information, supported by the mother's age. Skilled and knowledgeable treatment is paramount. Knowledge-based treatment can also save the life of someone with acute medical problems.9

Information and education are needed, therefore, not only for safety and accident prevention, but also for rapid and appropriate treatment. Peers generally panic and become anxious that their child will die. This is a result of a lack of knowledge that impacts the family's behavior in handling choking in children. If the family's behavior in handling choking in children is correct, the child will avoid the threat of death and there will be no internal injuries after treatment. Conversely, if the family's behavior in handling choking in children is incorrect, internal injuries can occur that the family is unaware of, which can lead to the child's death.9

One way to ensure information is understood and impactful in changing the behavior of the community, particularly students and schoolchildren, is by using education as a method of conveying information. This is because education is a good and effective approach to providing or conveying health messages or information to students and schoolchildren with the aim of changing behavior by increasing family knowledge and skills. This will ensure that the community is not only aware, knowledgeable, and understanding but also willing and able to implement recommendations related to health, namely regarding the prevention and implementation of choking in children, thereby increasing family knowledge and skills in implementing these recommendations.10

Health education, in its general sense, is any planned effort to influence others, whether individuals, groups, or communities, so that they do what is expected by the health education or promotion practitioners. This definition implies elements of input (the targets and educators of education), process (planned efforts to influence others), and output (doing what is expected). The expected outcome of health promotion or education is health behavior, or

behavior to maintain and improve health that is conducive to the targets of health promotion.¹⁰

According to Law No. 9 of 1960, Chapter I Article 2 concerning the principles of health, health is a state that includes physical, spiritual (mental) and social health, and not merely a state free from disease, disability and weakness. Meanwhile, according to WHO "Health is defined as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity".¹⁰ Health education aids are tools used by educators in delivering educational materials which are commonly known as teaching aids that function to assist and demonstrate something in the learning process. Education, which can then be get experience or knowledge through various aids. Health education media are essentially educational aids (audiovisual aids/AVA). They are called educational media because these tools serve as channels for conveying health information, facilitating the acceptance of health messages by the public or "clients." Based on their function as a channel for conveying health messages (media).¹¹

Education about choking management is crucial for preventing choking. Educational information is needed for prompt and appropriate treatment. This will ensure that the public is not only aware, knowledgeable, and understands, but also willing and able to implement health-related recommendations regarding choking prevention and management in children, thereby improving the knowledge and skills of students and schoolchildren.¹¹

Based on preliminary results conducted on the date at Tanah Sareal Health Center, it was found that 7 out of 11 respondents did not have knowledge about first aid for choking, they were unable to perform choking actions, because students rarely received education or health counseling about choking. Therefore, researchers were interested in conducting research on "The effect of health education about first aid for choking on the ability to perform choking actions"

METHOD

This research design is a quasi-experimental study. The approach used is a one-group pre-test-post-test. The population in this study were 300 school-age children in the Tanah Sareal Community Health Center, Bogor City. The sampling technique in this study used random sampling, with the Federer formula, with a sample size of 20 respondents. This research was conducted at the Tanah Sareal Community Health Center, Bogor City. Data analysis used the paired sample t-test.

RESULTS

Table 1
 Frequency Distribution of Respondents Based on Their Ability to Choke Before Health Education

Ability to Choke	F	%
Unable	11	55.0
Able	9	45.0
Total	20	100

Based on the frequency distribution table of respondents based on their ability to perform Chocking before Health Education was carried out on students at Tanah Sareal Health Center, out of 20 respondents, 11 respondents were unable to perform Chocking (55%).

Table 2
 Frequency Distribution of Respondents Based on Their Ability to Choke After Health Education

Ability to Choke	F	%
Unable	5	25
Able	15	75
Total	20	100

Based on the frequency distribution table of respondents based on their ability to perform Chocking after Health Education was carried out on students at Tanah Sareal Health Center, out of 20 respondents, 15 respondents were able to perform Chocking (75%).

Table 3
 Testing the Effect of Providing Education on Students' Ability to Perform Choking Actions

	<i>Paired Differences</i>			
	Mean	T	Df	Sig. (2-tailed)
Pretest - Posttest	-.80000	-8.718	19	.000

Based on the analysis table of the difference in influence before and after health education on first aid for choking, the Sig. (2-tailed) value is 0.000, which means H0 is rejected and Ha is accepted because the significance value is <0.05. So it can be concluded that there is

an average difference between the learning outcomes of the Pretest and Posttest, which means there is an influence between health education on first aid for choking on the ability to perform choking actions in children at the Tanah Sareal Community Health Center, Bogor City.

DISCUSSION

1. Frequency Distribution of Respondents Based on Their Ability to Choke Before Health Education

Based on the frequency distribution of respondents based on their ability to perform Chocking before Health Education was carried out on children in the Tanah Sareal Health Center area, out of 20 respondents, 11 respondents were unable to perform Chocking (55%).

According to research conducted on all mothers at the Ranotana Weru Health Center by Julia et al. in 2019 regarding the effect of health education on handling choking on the knowledge of breastfeeding mothers, it was found that the level of knowledge before health education was 93.8% with sufficient knowledge, and 6.2% with insufficient knowledge regarding handling choking.

According to Sabrina, in 2008, half of adults didn't know what to do to prevent a child from choking. Furthermore, a survey by the Home Safety Council found that many Americans are unaware of the causes of choking, due to mothers' lack of education, lack of knowledge about child care, and a lack of information, supported by the mother's age. Skilled and knowledgeable treatment is paramount. Knowledge-based treatment can also save the life of someone with acute medical problems.

Information and education are needed, therefore, not only for safety and accident prevention, but also for rapid and appropriate treatment. Peers often panic and become anxious that their child will die. This is a result of a lack of knowledge, which impacts the family's behavior in handling choking in children. If the family's behavior in handling choking in children is correct, the child will avoid the threat of death and will not experience internal injuries after treatment. Conversely, if the family's behavior in handling choking in children is incorrect, internal injuries can occur that the family is unaware of, which can lead to the child's death.

So, the conclusion of the research conducted by the researcher is that the inability to do Chocking occurs due to the child's lack of knowledge.

2. Frequency Distribution of Respondents Based on Their Ability to Choke After Health Education

Based on the frequency distribution table of respondents based on their ability to perform Chocking after Health Education was carried out on students at Tanah Sareal Health Center, out of 20 respondents, 15 respondents were able to perform Chocking (75%).

According to research conducted on all mothers at the Posyandu in Palem Karangrejo Village, Magetan by Yeti Nurhayati in 2017 regarding the influence of health education on handling choking on foreign objects in toddlers on maternal self-efficacy, it was found that the level of knowledge after health education was 58% with sufficient knowledge, 18% with moderate knowledge, and 12% with insufficient knowledge regarding handling choking.

One way to ensure information is understood and impactful in changing the behavior of the community, particularly students and schoolchildren, is through education. This is because education is a good and effective way to approach students and schoolchildren in providing or conveying health messages or information with the aim of changing behavior by increasing family knowledge and skills. This will ensure that the community is not only aware, knowledgeable, and understands, but also willing and able to implement health-related recommendations, specifically regarding the prevention and management of choking in children, thereby increasing family knowledge and skills in implementing these recommendations.

So, the conclusion of the research conducted by the researcher is that the inability to do Chocking occurs due to the child's lack of knowledge.

3. Analysis of the Influence of Choking Ability Before and After Health Education

Based on the analysis of the difference in influence before and after health education on first aid for choking, the Sig. (2-tailed) value is 0.000, which means H_0 is rejected and H_a is accepted because the significance value is <0.05 . So it can be concluded that there is an average difference between the learning outcomes of the Pretest and Posttest, which means there is an influence between health education on first aid for choking on the ability to perform choking actions in children at the Tanah Sareal Community Health Center, Bogor City.

The influence of health education on first aid for choking on the ability to perform choking actions in students at the Tanah Sareal Community Health Center in Bogor City before and after the implementation of health counseling showed an increase in knowledge

regarding the ability to perform choking actions in students at the Tanah Sareal Community Health Center in Bogor City.

According to a study conducted on all mothers at the Ranotana Weru Health Center by Julia, et al in 2019 on the effect of health education on handling choking on the knowledge of breastfeeding mothers, the significance value was 0.000, which means there is an effect of health education on handling choking on the knowledge of breastfeeding mothers. Meanwhile, in a study conducted on all mothers at the Posyandu Desa Palem Karangrejo Magetan by Yeti Nurhayati in 2017 on the effect of health education on handling choking on foreign objects in toddlers on maternal self-efficacy, the significance value was 0.000, which means there is an effect of health education on handling choking on foreign objects in toddlers on maternal self-efficacy.

So the conclusion of the research conducted by the researcher is that there is an influence between health education about first aid for choking on the ability to carry out choking actions in students at the Tanah Sareal Health Center, Bogor City.

CONCLUSION

1. Knowledge before being given health education about first aid regarding the ability to carry out choking actions is still low.
2. Knowledge after being given health education about first aid for choking increased the ability to carry out choking actions.
3. Health education about first aid for choking can improve students' ability to perform choking actions.

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