



RESEARCH ARTICLE

Article URL: <https://ojs.poltekkes-malang.ac.id/index.php/HAJ/index>**Health Education Using Video Media to Improve Parents Knowledge About Handling Choking in Children****Yevi Asih Arina¹, Sri Mugianti², Dewi Rachmawati^{3(CA)}**^{1,2,3} Department of Nursing, Poltekkes Kemenkes MalangCorrespondence author's email (^{CA}): dewi_rachmawati@poltekkes-malang.ac.id**ABSTRACT**

Choking is an emergency that often occurs in early childhood due to foreign objects or food that block the respiratory tract and can cause death if not treated immediately. This study aims to determine the effect of health education using video media on increasing the knowledge of student guardians about choking management. The study used a pre-experimental one group pretest-posttest design with 34 student guardians selected by total sampling at Al-Hidayah Ringinanyar Kindergarten in April-May 2025. The instrument was a choking knowledge questionnaire consisting of 17 items that had been tested for validity ($p = 0.005$) and reliability (Cronbach's Alpha = 0.82). Data analysis included univariate and bivariate using Wilcoxon test. The results showed that before the intervention 61.8% of respondents had poor knowledge, after the intervention it increased to 88.2% with a good category. The Wilcoxon test resulted in a p value = 0.000 ($p < 0.05$), which indicates a significant effect after health education with video media. Video media allows respondents to practice the material directly, making it easier to remember and repeat information. In conclusion, health education using video media is effective in increasing the knowledge of student guardians about choking management in early childhood.

Keywords: Health education; Video media; Knowledge; Choking; Mothers of students guardians

INTRODUCTION

Early childhood (0-5 years) is very vulnerable to various health problems and accidents due to their developing physical and mental conditions and immature immune systems (1). Upper respiratory tract infections such as coughs, colds, and fever often occur due to a weak immune system. In addition, choking is a common emergency in children, caused by the entry of foreign objects or food into the airway and can be fatal without rapid treatment (2,3) WHO reported about 17,537 cases of choking in children aged 18-36 months, the majority due to food (59.5%), foreign objects (31.4%), and the rest unidentified (9.1%)(2). The most common food causes were grains, nuts, and vegetables (1). The main factor of choking is large and hard food(5). Inappropriate eating behaviors such as eating while playing or talking can also lead to choking(6). Symptoms of choking vary from a mild cough to asphyxiation and death (4-6).

Quick and appropriate first treatment is essential using the techniques of back blows, chest pounding, or abdominal pounding, adapted to the age of the child (7). Education using video media is effective in increasing maternal knowledge because it presents visual information that is easy to understand and can be repeated (8).

A preliminary study on December 9, 2024 at AL Hidayah Ringinanyar Kindergarten, Blitar, showed that some mothers did not understand first aid for choking, with 7 out of 10 mothers not knowing the steps to take and 3 others providing inappropriate help. School environments with canteens and food vendors have the risk of increasing the incidence of choking due to children's rushed food consumption.

Based on this, this study was conducted to examine the effect of health education using video media on increasing the knowledge of mothers of student guardians about handling choking in children.

METHODS

This study uses a type of quantitative research with a pre-experimental research design one-group pretest-posttest design. Respondents of this study were mothers of guardians of students at AL Hidayah Ringinanyar Kindergarten, Ponggok Kab. Blitar from April to May 2025, totaling 34 people. The research instrument in the form of a choking handling knowledge questionnaire consisting of 17 items, has been tested for validity with a value of $p = 0.005$ and declared completely valid, as well as a reliability test showing a Cronbach's Alpha value of 0.82, which means reliable. Data were analyzed univariately to determine frequency distribution and bivariate using Wilcoxon test to test the difference between pretest and posttest.

RESULTS

A. Characteristics of Respondent Mother Guardians of AL Hidayah Kindergarten Students

Table 1. Characteristics of respondents of mothers of guardians of students of AL Hidayah Ringinanyar Kindergarten

No	Respondent Characteristics	f	%	
1.	Age			
	Early adulthood	20 - 29 years old	4	11,8
	Late adolescence	30 - 59 years old	30	88,2
2.	Education			
	Elementary/equivalent	5	14,7	
	Junior high School/equivalent	17	50	
	High School/equivalent	12	35,3	
3.	Ocupation			
	Housewife	21	61,8	
	Farmer	7	20,6	
	Private employer	4	11,8	
	Trade	2	5,9	
4.	History of health education			
	Never	31	91,2	
	Ever	3	8,8	

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No	Respondent Characteristics	f	%
5.	History of choking relief		
	Never	30	88,2
	Ever	4	11,8

Based on Table 1, it can be interpreted that 88,2% of student guardians are 30-59 years old, 50% have a junior high school education, 61.8% work as housewives, 91,2% never received health education about airway obstruction management and 88,2% never had any experience in helping victims with airway obstruction

B. Mother's Knowledge about Choking Handling in Children at AL Hidayah Ringinanyar Kindergarten

Table 3. Pre-post data on the knowledge of mothers in handling choking in children at AL Hidayah Ringinanyar Kindergarten

Kategory	Knowledge Before		Knowledge After	
	f	%	f	%
Less	21	61,8%	30	88,2%
Fair	12	35,3%	4	11,8%
Good	1	2,9%	0	0%
Total	34	100%	34	100%

Based on Table 3, it is known that the pretest data on the knowledge of the student's mother guardian as many as 21 people in the poor category (61.8%) and the posttest data on the knowledge of the student's mother guardian as many as 30 people in the good category (88.2%).

The Effect of Health Education Using Video Media on the Knowledge of Student Guardians about Choking Handling in Children at AL Hidayah Ringinanyar Kindergarten

Table 5. Data on the effect of health education using video media on the knowledge of student guardians about choking management in children at AL Hidayah Ringinanyar Kindergarten.

Knowledge	Mean	Std. Deviation	p value	n
Pretest	1,38		0,000	34
Posttest	2,88	327		

Based on Table 4.5, it can be seen that the average mother's knowledge at pretest was 1.38 with a standard deviation of 493. It can be seen from the mean value that the difference between pretest and posttest is 1.5 with a standard deviation of 166. The results of statistical tests using the Wilcoxon Signed Ranks Test show a significance value of 0.000 ($p < 0.05$), which means that there is a difference between the pretest and posttest so that it can be said that there is an effect of health education with video media on increasing the knowledge of student guardians about choking management in children at AL Hidayah Ringinanyar Kindergarten.

C. Relationship between knowledge of student guardians and age

Table 6. Relationship between knowledge of student guardians with age

	AGE	
	<i>Pre-test</i>	<i>Post-test</i>
r	0.223	0.274
p	0.206	0.017
n	34	34

Table 4.6 shows that age does not have a significant relationship with *pre-test* results ($p = 0.206$), but shows a significant positive relationship with *post-test* results ($p = 0.017$) with low correlation strength. This indicates that age differences did not affect respondents' initial knowledge, but after receiving education, higher age tended to correlate with improved *post-test* results.

D. Relationship between knowledge and education

Table 7. Relationship between mother's knowledge and education

	EDUCATION	
	<i>Pre-test</i>	<i>Post-test</i>
r	0.190	0.480
p	0.005	0.004
n	34	34

Based on table 4.7, it is known that education shows significant relationship to both *pre-test* ($p = 0.005$) and *post-test* ($p = 0.004$) scores with low correlation strength. This finding reinforces the notion that education level greatly influences an individual's ability to understand health information, both before and after the intervention.

E. Relationship between Knowledge of Student Caregivers and Occupation

Table 8. Relationship between mother's knowledge and occupation

	JOB	
	<i>Pre-test</i>	<i>Post-test</i>
r	0.284	0.150
p	0.000	0.020
n	34	34

Based on table 4.8, it is known that occupation has a significant relationship with *pre-test* scores ($p = 0.000$) and also with *post-test* ($p = 0.020$) with low correlation strength. Type of employment may affect access to information and practical experience, thus affecting the level of knowledge before and after the intervention.

F. Relationship between mother's knowledge and information history

Table 9: Relationship between mother's knowledge and information history

	INFORMATION HISTORY	
	<i>Pre-test</i>	<i>Post-test</i>
r	0.454	0.114
p	0.007	0.087
n	34	34

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Based on table 4.9, it is known that information history shows a significant relationship to the *pre-test* results ($p = 0.007$), but not significant to the *post-test* ($p = 0.087$). This shows that initial knowledge is strongly influenced by the history of information that respondents have previously had.

G. The relationship between the knowledge of the mother's guardian and the history of performing first aid for choking

Table 10: The relationship between the knowledge of student guardians with the history of performing first aid for choking

	INFORMATION HISTORY	
	<i>Pre-test</i>	<i>Post-test</i>
r	0.329	0.113
p	0.018	0.152
n	34	34

Based on table 4.10, it is known that the history of performing first aid for choking shows a significant relationship to the *pre-test* results ($p = 0.018$), but not significant to the *post-test* ($r = 0.113$; $p = 0.152$). This shows that initial knowledge is strongly influenced by the history of performing aid that respondents have previously had.

DISCUSSION

A. Knowledge of student guardians about choking management before receiving health education using video media

Based on the pre-test results, it was found that the majority of student guardians had low knowledge about choking management, with 61.8% categorized as less, 35.3% as fair and only 2.9% as good. These results indicate that before receiving health education using video media, most respondents lacked understanding of the correct techniques and procedures for managing choking incidents in children.

Several factors were identified to influence this low level of knowledge, including age, education level, occupation, history of receiving information, and experience performing first aid for choking. The statistical analysis showed that age did not significantly affect pre-test results ($p = 0.206$), indicating that knowledge gaps occurred across all age groups. However, education had a significant relationship with knowledge ($p = 0.005$), suggesting that individuals with higher educational attainment tend to have better understanding of health-related topics, including first aid. This is in line with Astilia (9), who found that mothers with higher education levels are more capable of comprehending and applying health information effectively.

Occupation also played a significant role ($p = 0.000$), where respondents who were actively employed might have had greater access to information or health-related experiences compared to those who did not work. Desi dkk (10) supported this finding by emphasizing that exposure to community

health programs and educational interventions, often accessed by working individuals, helps improve health literacy and preparedness in emergency situations.

The history of receiving information was another crucial determinant ($p = 0.007$). Respondents who had previously been exposed to information about choking demonstrated better initial knowledge. This aligns with Kamiwarno dkk (11), who stated that repeated exposure to educational materials, such as flip charts or videos, reinforces understanding and recall of emergency procedures. On the other hand, those who had never received similar information relied mostly on instinctive responses that are often incorrect or unsafe.

Moreover, experience in performing first aid for choking was found to have a significant effect on pre-test knowledge ($p = 0.018$). Respondents with prior experience tended to possess higher confidence and comprehension in managing choking cases. This supports Irman (12), who noted that practical exposure and interactive learning, especially through audio-visual media, can strengthen both intention and skill mastery in emergency response situations.

In summary, before the intervention, the low knowledge level of student guardians about choking management was influenced by educational background, occupation, previous information exposure, and hands-on experience. These findings highlight the importance of structured, engaging, and visual-based educational interventions—such as video media—to overcome knowledge disparities and enhance parents' or guardians' preparedness in handling choking emergencies effectively

B. Mother's Knowledge about Choking Handling After Receiving Health Education Using Video Media

The results showed that after the health education intervention using video media, there was an increase in knowledge with almost all mothers obtaining the good category. Video media not only allows mothers to hear, but also observe, do, and demonstrate the content of the material so as to facilitate the recall and repetition of information (12).

Video media is an audiovisual media that combines images, sound, and animation so that information is presented more interesting, dynamic, and easy to understand. The combination of the senses of hearing and vision increases the absorption and retention of information. Videos are able to directly visualize actions, such as choking treatment steps, that are difficult to explain with text alone. Compared to static and two-dimensional booklets, videos provide a more interactive and immersive learning experience. This is supported by Nilam dkk (13) which states that videos are more effective in increasing knowledge than booklets, also in line with the findings of related to the effectiveness of audiovisual media in health education.

Education using animated video media that is directed and consistent is more effective in encouraging changes in knowledge and behavior than without similar education. This media provides multisensory stimulus through visual and auditory channels, so that information is more easily accepted, fully understood, and stored in long-term memory (9).

It is concluded that the use of video media makes student guardians not only hear and see the

material, but also practice directly, thus facilitating understanding and long-term memory that increases knowledge about handling choking in children.

C. The Effect of Video Media Health Education on Increasing the Knowledge of Student Guardians about Choking Handling in Children at AL Hidayah Ringinanyar Kindergarten

The results showed an increase in the knowledge of student guardians from the poor category to the good category after the health education intervention using video media. Wilcoxon test analysis proved that there was a significant effect of providing health education on choking handling through video media. This is in line with research Nilam dkk (13) in the working area of the Nagaswidak Palembang Health Center and supported by which states the effectiveness of video media in increasing knowledge of choking management.

Health education is a planned effort to influence individuals or groups to behave according to the expectations of implementers (14). Video media combines sound and images simultaneously to clarify information. The advantages of video media include systematic and interesting presentation of information, visual and auditory appeal that increases audience attention, and interactive and flexible nature because it can be replayed as needed. These features aid repetition of material, reinforce understanding and long-term retention, making it particularly suitable for practical health education such as choking management (13).

Other factors affecting mothers' improved understanding include age, education level, occupation and access to information. Age affects the mother's ability to perceive and process information, as well as her maturity of thinking and life experiences. Productive age groups generally have better cognitive abilities to absorb educational material (7). Higher education facilitates the delivery and understanding of information (12). Employment provides opportunities for discussion, information sharing and exchange of experiences that enrich knowledge (15). The quality of information received contributes to the development of knowledge (1).

Based on the results of the research and supporting studies, the combination of visual and audio elements in video media is able to maximize education so that it significantly affects the knowledge of student guardians about handling choking in children.

CONCLUSIONS

The study of 34 mothers in AL Hidayah Ringinanyar Kindergarten showed that most mothers had insufficient knowledge about choking management in the early stages. Most mothers had not received information about choking management and had never provided first aid in choking cases. After receiving health education using video media, mothers' knowledge increased significantly. This is because mothers not only hear the material but can also practice the contents of the video, replay it, and adjust the duration so that the material is easier to remember in the long term. The use of video media facilitates direct practice and repetition of information, resulting in positive changes in maternal knowledge before and after health education.

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