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EDUCATION VIDEO "GEMITA" (GEMAR MENCUCI TANGAN) AS AN OPTIMIZATION STEP FOR 6 STEPS HAND WASHING BEHAVIOR IN KINDERGARTEN CHILDREN

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ABSTRACT

Introduction: The lack of children's behavior towards compliance with the 6-step hand washing is due to the lack of education, one of which can improve it is through the educational video "GEMITA". This community service activity aims to optimize GEMITA education in providing health education to increase knowledge, attitudes, and compliance regarding the 6 steps of hand washing.

Methods: The GEMITA video for kindergarten children by the community service team of the Faculty of Health Sciences, Universitas Gresik, at Baitussholah Kindergarten School in Surabaya in April 2024. The community service team provided health information about the 6 steps of hand washing, demonstrating, with interactive discussions in small groups. Participants consisted of 41 kindergarten children aged 4-6 years. Each group consisted of 6-7 children. The activity began with a pre-test using an observation and got education through a 10-minute GEMITA video and handwashing demonstration. After that, a post-test was conducted to evaluate the program.

Results: The knowledge in the good category (65.9%) after receiving health education through the GEMITA video. There was also a change in attitude in the good category (80.5%), and 41% of kindergarten children experienced increased compliance in the compliant category.

Conclusion: Health education through the GEMITA video has proven effective in increasing knowledge, attitudes, and compliance of children in following health education. Providing the GEMITA video is recommended to become a routine school program for kindergarten that maintains children's cleanliness and health behavior through health education activities and the way to wash hands.

KEYWORDS

handwashing; health education; kindergarten children; video.

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1. INTRODUCTION

Washing hands with soap (CTPS) is important to know and apply in daily life. The behavior of CTPS that is not correct is still high among children aged 10 years and under. Children at that age are very active and vulnerable to diseases, so there is a need to increase their awareness of the importance of CTPS to be applied in daily life (Ruby, 2015). The childhood period is the most important time in the process of forming and developing personality to become responsible individuals in society. Preschool children are in the golden age, which is around 3 to 6 years. This age is a critical period for the development of cognitive abilities, independence, motor coordination, and creativity. This phase causes curiosity and interest in exploring the environment to

increase, making preschool children vulnerable to diseases related to hygiene (Ruby, 2015).

Preschool-aged children are children who have immature thinking and still have limited knowledge. This is because children are still in a developmental stage that requires exploration of the surrounding environment as much as possible. The knowledge they possess influences their attitudes and habits in performing handwashing actions. This is in accordance with previous research which states that the lack of preschool children's ability to wash hands with soap correctly is caused by several factors such as lack of knowledge, children's understanding of the importance of washing hands and how to wash hands with soap correctly, and the absence of direct learning or health education from teachers, parents, or health workers, so children do not yet understand and are not accustomed to washing hands with soap correctly (Kusbiantoro, D., & Alamsyah, 2021). According to AH Sanaky (2013), education is a learning medium, a means or educational tool used as an intermediary in the learning process to enhance effectiveness and efficiency in achieving learning objectives. Based on research results (Sari, W., & Setiadi, 2018) there are media that can be used to educate early childhood or preschool children, one of which is using audiovisual media, because at the age of 2 to 6 years, children's knowledge development is at a stage where they have the ability to understand more quickly what they have seen, heard, and felt. The results of this study showed an increase in respondents' knowledge after being given health counseling using video media. This is because the use of video media in the research not only can depict a moving object accompanied by interesting sounds but also can present information, illustrate processes, explain concepts or difficult problems, and influence attitudes in respondents (Nurak, C. E., Setiono, K. W., & Koamesah, 2021).

According to the World Health Organization (WHO), washing hands with soap can reduce diarrhea rates by 45% and can decrease cases of ARI and flu (Muzaenah, T., & Riyaningrum, 2020). In Indonesia, based on the results of the Basic Health Research, there is an increase in the prevalence of diarrhea in children aged 5 to 14 years from 4.1% in 2013 to 6.2% in 2018 (Muzaenah, T., & Riyaningrum, 2020). Based on the Basic Health Research Data of 2018, the proportion of the population under 10 years old who wash their hands correctly in Indonesia has increased from 47.0% in 2013 to 49.8% in 2018 (Parasyanti, N. K. V., Yanti, N. L. G. P., & Mastini, 202 C.E.). In East Java, the proportion of correct handwashing is still very low, at 48.1%. In the urban area of Surabaya, it was reported that the handwashing with soap rate is only 21% (Risnawaty, 2016).

At TK Baitussholah Surabaya, education on the 6 steps of handwashing has been conducted by teachers using the CTPS clapping method. However, more time is needed for children to memorize and apply it in daily life. Children in classes A and B do not apply the 6 steps of handwashing well and correctly according to WHO standards; they only rub with soap and rinse with water and have not yet been able to apply the 6 steps of handwashing in daily life. The video contains information about what handwashing is, the right time to wash hands, and the 6 steps of proper handwashing. Therefore, this community service activity aims to optimize GEMITA education in providing health education to improve knowledge, attitudes, and compliance regarding the 6 steps of handwashing. GEMITA videos were chosen because they are specifically designed for early childhood education with concepts that are interesting, interactive and easy to understand. Making the video ourselves ensures that the material is appropriate to the needs, local culture, and more interesting for children. The difference with existing videos: 1) Content Personalization - Tailored to the local environment and habits of kindergarten children; 2) More Interactive Visuals - Using animations and characters familiar to children; 3) More Engaging Educational Delivery.

2. MATERIAL AND METHODS

The population in this activity is all kindergarten A and kindergarten B class children at Baitussholah Kindergarten Surabaya aged 4-6 years, namely 46 respondents. Determination of the sample size using the Slovin formula so that a sample size of 41 respondents was obtained. The independent variables are knowledge and attitude, the dependent variable is compliance. The procedure is as follows: Each group consists of 6-7 children. The activity begins with a pre-test using an observation sheet to assess the ability to wash hands 6 steps. Next, participants received education through the GEMITA video for 10 minutes and a demonstration of hand washing. After that, a post-test was conducted to evaluate the increase in knowledge, attitude change, and compliance. The children then practiced the 6-step handwashing as demonstrated. After the data was collected, a Wilcoxon statistical test was conducted.

The stages of the community service implementation consist of three stages. The first stage is to increase the knowledge and attitudes of kindergarten children about the 6 steps of handwashing through the provision of pretest observation sheets. The second stage is health education through the GEMITA video by the community service team for kindergarten children and a demonstration of the 6 steps of handwashing. The third stage is evaluation and improvement of children's ability to practice the 6 steps of handwashing. The duration of each meeting is 2 hours, and the video presentation is 10 minutes. The number of participants in this service is 41 kindergarten children who can communicate well and cooperatively. Before the activity was carried out, the team conducted a pretest to measure the level of knowledge of the respondents. After that, the GEMITA video was played for 10 minutes, after which the respondents' knowledge was measured again with a knowledge questionnaire, which could then be categorized as good, sufficient, and lack of knowledge.

Provides health education through the GEMITA video to kindergarten children about the 6 steps of handwashing to support cleanliness and health, namely understanding, goals, benefits, impacts, when to wash hands with interactive discussions in small groups as well as demonstrations of how to wash hands properly and correctly in 6 steps. Evaluating changes in knowledge and attitudes using observation sheets filled out before and after health education. The observation sheets consist of questions that explore knowledge and attitudes about the 6 steps of handwashing. In addition to evaluating knowledge and attitudes using observation sheets, the community service team also conducts evaluations through observations regarding how to practice the 6 steps of handwashing properly and correctly. The evaluation of this activity uses knowledge and attitude questionnaires, as well as hand washing compliance observation sheets. Knowledge and attitude categories can be seen from the percentage results if 76%-100% is a good category; 56%-75% is a enough category; <55% is a poor category. While the compliance category can be categorized as 85% compliant; 76%-84% less compliance; 75% non compliant.

3. RESULTS

This community service activity was attended by 41 kindergarten A and kindergarten B children from Baitussholah Kindergarten Surabaya aged 4-6 years. The most age in the 5 year category (51.2%). Most of the participants who participated in this community service were female (56%). Meanwhile, all participants knew about hand washing from their teachers (100%). (Table 1).

Before being given health education through the GEMITA video, the average value of knowledge about hand washing in the category of less as many as 25 (61%) and enough 13 (31.7%). After being given health education through the GEMITA video, the

Table 1. Participant Characteristics

Characteristic	n	%
Class		
A	20	48.8
B	21	51.2
Age		
4th	2	4.9
5th	21	51.2
6th	18	43.9
Gender		
Male	18	44
Female	23	56
Knowledge Status		
Yes	41	100
No	0	0
Home application behavior		
Yes	3	7.3
No	38	92.7
Knowledge sources		
Television	0	0
Teacher	41	100
Friends	0	0
Internet	0	0
Books	0	0
School application behavior		
Yes	41	100
No	0	0

Table 2. Knowledge Before And After Being Given GEMITA Video Health Education

Knowledge	Prepost		Post test	
	f	%	f	%
Less	25	61	3	7.3
Enough	13	31.7	11	26.8
Good	3	27.3	27	65.9
Total	41	100	41	100
Wilcoxon signed rank test P= 0.000				

Table 3. Attitudes Before And After Being Given GEMITA Video Health Education

Attitudes	Pretest		Post test	
	f	%	f	%
Less	8	19.5	2	4.9
Enough	32	78	6	14.6
Good	1	2.4	33	80.5
Total	41	100	41	100
Wilcoxon signed rank test P= 0.000				

Table 4. Compliant Before And After The GEMITA Video Health Education Program

Compliant	Pre test		Post test	
	f	%	f	%
Less Compliant	38	92.7	13	31.7
Non Compliant	2	4.9	7	17.1
Compliant	1	2.4	21	51.2
Total	41	100	41	100
Wilcoxon signed rank test P= 0.000				

average value of knowledge increased and 65.9% of participants had good knowledge. Wilcoxon signed rank test p<0,05, it means that there is difference in knowledge before and after giving the education.

The parameters of knowledge about hand washing 6 steps before the intervention showed that the lowest mean value was knowledge about not washing hands with soap causes diarrhea after being given

Figure 1. GEMITA Video Health Education

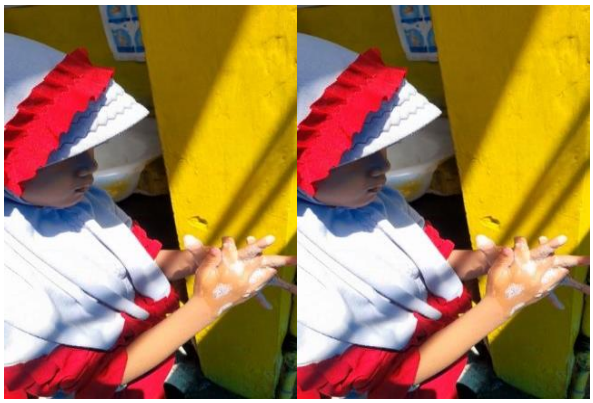

Figure 2. 6-step Handwashing Compliance

health education, knowledge about hand washing 6 steps increased. In the aspect of attitude about hand washing, the lowest value before the intervention was in the moderate category (78%) after the intervention there was an increase in attitude in the good category (80.5%). Wilcoxon signed rank test p<0,05, it means that there is difference in attitude before and after giving the education.

The difference in the increase in knowledge and the highest attitude after education is that kindergarten children know about the importance of hand washing. In table 4, it is explained that before the intervention, compliance was in the non-compliant category (92.7%) after the intervention, the majority of children experienced compliance (51.2%). Wilcoxon signed rank test p<0,05, it means that there is difference in compliance before and after giving the education.

4. DISCUSSION

The results of the questionnaire sheet measuring children's knowledge consisting of 9 question items, most children answered incorrectly on questions number 2, 4, 6, 9 with questions “washing hands thoroughly can prevent disease and stop the spread of germs”, “washing hands with soap is not needed after we play and exercise”, “washing hands is not needed after touching animals / poultry including pets, ‘after washing hands we do not need to dry our hands with a dry cloth / tissue’ of the 4 question items above, 3 of them are negative questions so that children cannot understand the meaning of the questions above.

Thus, according to researchers, age affects the knowledge possessed by a person. According to (Gabriela, 2021) the theory of knowledge states that age is a factor that affects knowledge because the more age increases, the more mature it will be in working and thinking (ROKHAIDAH, Rokhaidah, 2022) And according to researchers, gender also affects knowledge. Girls are easier to receive material and information because girls are more focused and attentive when given interventions, and are able to practice good and correct hand washing steps than boys. Hearing and vision are also more sensitive in girls than boys. This is in accordance with research in (Ratnawati, R., Putri, N. D. R., Firani, I. M., Damayanti, D. M., & Rahmawati, 2024)

Thus, the service team tried to provide education about 6-step handwashing so that respondents were obedient in carrying out handwashing according to standards. For researchers, an appropriate and very effective intervention used with respondents who are preschool-age children is to use animated videos. That is because animated videos are able to convey complex concepts visually and dynamically, attract students' attention easily, increase motivation and stimulate more memorable student thinking, animation can also help provide virtual learning (Sari, W., & Setiadi, 2018). This activity is supported by research from (Susilo, A., & Widiya, 2021) health

education with audio-visual media is effective in increasing respondents' knowledge of hand washing with soap in early childhood at Amzar Molinow Kindergarten, Kotamobagu City.

From the results of the questionnaire sheet that measures children's attitudes consists of 8 question items. Children's ignorance about good and correct hand washing attitudes is found in questions number 1, 5, 6, 7 with questions "I wash my hands using soap before eating", "I don't wash my hands using soap after holding pets", "I don't dry my hands using a cloth / tissue after washing my hands, 'I wash my hands using water only' from these questions the respondent answered incorrectly and showed that the respondent's attitude was negative. Through animated videos, early childhood can be interested in the learning that will be done and also the material that will be conveyed. Animated video media is media that has a moving image with sound in the form of audio visual and this media can display a dead image that will look like real (Fauzi, 2021).

This animated video media has an impact on early childhood development such as the development of thinking and can motivate children because the media is very interesting for them, starting from the presence of moving images, interesting characters and sound (Dewi, F. F., & Handayani, 2021). Therefore, animated video media makes it easier for children or students to learn, so that students can understand and imitate to implement clean and healthy living behaviors and learning will get positive results (Awalia, I., Pamungkas, A. S., & Alamsyah, 2019). This activity is supported by research from (Kusbiantoro, D., & Alamsyah, 2021) "Video Handwashing with Soap Improves the Ability to Wash Hands of Pre-School Children" The results of the study obtained before being given health education through hand washing videos, most (74.3%) were not appropriate in washing hands with soap and after being given health education through hand washing with soap videos, almost all (91.4%) children washed their hands with soap appropriately. The statistical test results obtained p value is 0.000 ($p < 0.05$) which means there is an effect of giving hand washing videos on the ability of preschool children to wash their hands.

The observation sheet used to measure child compliance consists of 12 statement items. Before education, many of the respondents did not perform the actions in item numbers 5, 6, 10, 11 with statements "after holding toys", "after coughing or sneezing", "rubbing the inner fingers of both hands interlocking", "rubbing the left thumb rotating in the grip of the right hand and do the opposite". In order for children to be more obedient in washing hands 6 steps, it is necessary to provide education. Animated videos are audiovisual media that can be used as an educational medium. Audio visual media is one type of learning media that can be used in the learning process. Audiovisual media is an audiovisual aid which means materials or tools used in learning situations to assist the written and spoken word in transmitting knowledge, attitudes and ideas. Audio-visual media has sound elements and image elements, this type of media has better capabilities, because it includes both types of auditive (hearing) and visual (seeing) media. Messages and information that can be transmitted through this media can be verbal and nonverbal messages that rely on both vision and hearing (Gabriela, 2021).

This activity is supported by research from (Pratama, 2021) on "the effect of providing education with audio-visual media on good and correct hand washing behavior in preschool children at Aba Bantar II Kindergarten, Kulonprogo Regency" with the results before and after being given audiovisual media interventions in the form of hand washing videos, children's behavior in hand washing increases. Before being given the intervention, the respondents were in the poor category, because most children could not wash their hands properly, namely 25 children and 10 children. After being given the

intervention, the respondents were included in the good category, because knowledge about hand washing increased so that children could wash their hands properly. From the results of research on children with sufficient results after being given the intervention, they cannot wash their hands at step 4, namely the position of the hands like locking. Due to lack of practice and not familiar with the hand washing steps. The results of this study are reinforced through the Wilcoxon Signed Rank Test value obtained p value = 0.000 where the p value is smaller than α (0.005) so it can be concluded that H0 is rejected or H1 is accepted, which means that there is an effect of education with audio-visual media on good and correct hand washing behavior in preschool children at ABA Bantar II Kindergarten, Kulon Progo Regency. These results can be interpreted that education using audio-visual media has an effect on good and correct hand washing behavior in preschool children. The limitations of this activity are: 1)Dependence on Media, Children may not understand if not accompanied by teachers or parents; 2)Diverse Child Response - Not all children are interested or able to focus on the video method. While the strengths that can be raised from this activity: 1) Interactive video educational media is interesting and easy for children to understand; 2) Increase compliance so that children are more motivated to wash their hands properly; 3) Fun approach using animations, songs, and demonstrations that are appropriate for the age of kindergarten children; 4) Flexible and can be used repeatedly because it can be used at any time without the need for direct teaching.

5. CONCLUSION

Optimizing the provision of GEMITA video education in providing health education to kindergarten children in this community service activity is able to increase knowledge, attitude change, and increase compliance of kindergarten children in Baitussholah Surabaya about 6-step hand washing which includes understanding, purpose, benefits, impact, when to wash hands with interactive discussions in small groups and demonstrations of how to wash hands 6 steps properly and correctly. Providing education through the GEMITA video is highly recommended for the future as a kindergarten school program that routinely maintains the hygiene and health behavior of kindergarten children, through providing health education activities, and how to wash hands 6 steps including how to wash hands according to the SOP. For the sustainability of the GEMITA program for kindergarten children. It can be done in several ways to keep it running :1)Integration into the School Curriculum - Making handwashing education part of the daily routine at school; 2)Teacher and Parent Training; 3)Provision of Handwashing Facilities - Ensuring the availability of clean handwashing stations, soap, and running water in the school environment; 4)Regular Use of Educational Media - Playing the GEMITA video regularly to keep children remember and get used to it. Play and Reward Approach - Use simple games or rewards to increase children's motivation to practice proper handwashing.

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