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THE INFLUENCE OF PERSONAL HYGIENE PUZZLE MEDIA WASHING HANDS WITH SOAP ON STUDENTS' KNOWLEDGE OF SDN 6 PARAKAN KAUMAN TEMANGGUNG

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Abstract

Background : Diarrhea is still a global problem today and is still a serious concern from various countries. This was reported in the World Health Organization (WHO) which describes cases of diarrhea in the world in 2017 stating that there are nearly 1.7 billion cases of diarrheal disease that occur in children with 525,000 deaths every year worldwide. The occurrence of diarrhea will cause children to lose the nutrients that children need for growth and development, so diarrhea is the main cause of malnutrition in school-age children. The World Health Organization (WHO) states that washing hands with soap can reduce diarrhea rates by up to 47%.

Purpose : Analyzing the effect of personal hygiene puzzle media washing hands with soap on students' knowledge of SDN 6 Parakan Kauman Temanggung

Research Method: Pre-experimental design with one group pre-post test. The sampling technique used total sampling, namely 29 students at SDN 6 Parakan. Data analysis with Wilcoxon test

Research result : The majority of respondents' knowledge before being given puzzle media was in the good category, namely 15 (51.7%) respondents, while after giving puzzle media, the majority were good, namely 22 (75.9%) respondents. The results of the Wilcoxon test found a p value of 0.000 < 0.05 meaning that there was an effect of giving hand washing personal hygiene puzzle media with knowledge to elementary school students in Temanggung

Conclusions and recommendations : Giving puzzle media can affect students' knowledge about personal hygiene hand washing. It is hoped that the hand washing puzzle media can be used as a medium in increasing student knowledge

Keywords : Puzzle media, knowledge, elementary school students

PRELIMINARY

The current level of children's health cannot be said to be either good or in the healthy category because there are still many health problems, especially among elementary school children. Elementary school children are included in the age group that is vulnerable to health problems. Parents, schools and health professionals pay little attention to this problem, while their role greatly influences the quality of children's development in the future (Johan et al, 2018).

Handwashing with soap (CTPS) is a behavior that can support a clean and healthy life and avoid infectious diseases, one of which is diarrhea. The risk of a child suffering from diarrhea will decrease by 40% if he always does CTPS (UNICEF, 2020).

Clean and healthy living behavior (PHBS) is a preventive effort to change community behavior to support an increase in the degree of health status. Unsanitary and unhealthy behavior causes the emergence of diseases which are a public health problem, the behavior of washing hands with soap (CTPS) is one of the indicators of clean and healthy living behavior (PHBS) in schools as a preventive measure in protecting oneself from various infectious diseases such as diarrhea. The incidence of diarrhea can be prevented by applying the correct hand washing behavior using soap and implementing it with complete hand washing steps.

So in this case the habit of washing hands with soap should be accustomed from an early age to reduce the incidence of cases of diarrhea in school children (Octa, 2019). According to Green, a person's behavior is formed from three main factors, namely predisposing factors are internal factors that exist in every individual, group, and society that make it easier for individuals to behave such as knowledge, attitudes, beliefs, values and culture. Knowledge is a very important domain in shaping one's actions, supporting factors are factors that include the availability of facilities and infrastructure and driving factors are factors that are embodied in the attitudes and behavior of health workers or other officers (Solehati et al., 2019)

However, basically everything depends on everyone's personal hygiene, if a person is able to take care of and care for himself and does not consider it trivial regarding personal hygiene, viruses do not easily attack the body and cause diarrhea. This research is in line with research conducted by (Manogaran et al. , 2019). Promotive and preventive efforts that can be carried out in an effort to improve the health status of school-age children can be carried out by implementing clean and healthy living behaviors (PHBS) in the scope of schools where one of the indicators that can be applied is the behavior of washing hands with soap and can carry out education related to diarrhea prevention to school children to increase knowledge.

Handling the problem of diarrhea among school-age children requires special attention and hard work and seriousness from all components of society, nation and state. Diarrhea is still a global problem today and is still a serious concern from various countries. This was reported in the World Health Organization (WHO) which describes cases of diarrhea in the world in 2017 stating that there are nearly 1.7 billion cases of diarrheal disease that occur in children with 525,000 deaths every year worldwide. The Southeast Asia region ranks second in the number of under-five deaths caused by diarrhea. Although the global diarrhea mortality rate decreased from 2000 to 2016, its incidence showed a relatively moderate decrease of around 13%. The occurrence of

diarrhea will cause children need for growth and development, so diarrhea is the main cause of malnutrition in school-age children (Ode et al., 2020).

The World Health Organization (WHO) states that washing hands with soap can reduce diarrhea rates by up to 47%. Meanwhile, according to Basic Health Research (2018) it shows that the national prevalence of proper hand washing and using soap in the age group of 10 years or more can reduce the incidence of diarrhea by up to 49.80%. Schools have an important role at this time in educating and encouraging children to practice hand washing habits from an early age because hand washing habits learned at school can last a lifetime. Hand washing is an act of prevention and control of diarrheal diseases which is part of a clean and healthy lifestyle (PHBS) program in schools.

According to the World Health Organization diarrhea is a condition in which bowel movements are usually more liquid in consistency, three times or more in 24 hours a day. In Indonesia, the prevalence of diarrhea is a public health problem with high cases. Based on data from the Indonesian Ministry of Health, the prevalence of diarrhea in 2018 was 37.88% or around 1,516,438 cases in toddlers. The prevalence has increased in 2019 to 40% or around 1,591,944 cases in toddlers (Ditjen P2P, Kemenkes RI, 2020). In addition, Riskesdas reported that the prevalence of diarrhea was more common in the toddler group, which consisted of 11.4% or around 47,764 cases in boys and 10.5% or around 45,855 cases in girls.

The proportion of diarrhea cases handled in Central Java in 2018 was 62.7%, an increase compared to the proportion in 2017 which was 55.8%. This shows discovery and reporting must continue to be improved. In 2018, Extraordinary Events (KLB) of diarrhea took fifth place after food poisoning, diphtheria, AFP and clinical diphtheria (Central Java Provincial Health Office, 2018).

Diarrheal disease is an endemic disease in Temanggung Regency and is also a disease with potential for Extraordinary Events (KLB) which is often accompanied by death. The percentage of diarrhea cases handled in Temanggung Regency in 2017 was 99.25% (16,122 cases). Many cases of diarrhea were found in each health center in Temanggung Regency. The most cases of diarrhea were found at the Traji Health Center, namely 195.35%. This shows that the cases found and handled are greater than the number of detection targets (Temford District Health Office, 2018).

Data in the wards of the Djojonegoro Regional General Hospital, Temanggung Regency in 2018 stated that there were 944 cases of diarrhea. In 2019, there were 783 cases of diarrhea (Medical Records of the Djojonegoro Regional General Hospital, Temanggung Regency).

According to the Director of Family Health, Ministry of Health of the Republic of Indonesia, until now the health status of children cannot be categorized as good, because there are still health problems in Indonesia, where every year as many as 1.7 million children die from diarrhea, especially in school-age children.

Learning media is a tool or intermediary that is useful for facilitating the teaching and learning process, in order to streamline communication between teachers and students. The word media comes from Latin and is the plural form of the word "medium" which literally means "intermediary", namely the intermediary between the source of the message (a source) and the recipient of the message (a receiver). This is very helpful for

teachers in teaching and makes it easier for students to receive and understand lessons. Media has a very important position in achieving learning goals effectively. This process requires teachers who are able to align between learning media and learning methods (Yulisa Andriani, 2019).

Darmawan et al (2019) explained that a puzzle game is a game that aims to train children to think more creatively, such as assembling prepared puzzle pictures.

The role of media in learning, especially in early childhood education, is increasingly important, considering that the development of children at that age is at a time when children are able to think rationally, such as reasoning to solve problems. Therefore, one of the educator guidelines for early childhood must be based on reality, meaning that children are expected to be able to learn something real. Thus educators use something that allows children to learn in real terms. This statement means the need to use media as a channel for conveying messages from educators to students.

Puzzle media can help students in the learning process which functions as additional material for knowledge and makes it easier for students to understand the subject being studied. Besides that, the media can strengthen the love and appreciation of students.

RESEARCH METHODS

This research method is a pre-experimental design with one group pre-post test. This research was conducted at SDN 6 Parakan. The population of this research is the 2nd grade students of SDN 6 Parakan. The sampling technique with a total sampling of 29 respondents. The independent variable in this study was the provision of hand washing puzzle media and the dependent variable in this study was students' knowledge of hand washing personal hygiene.

This research was conducted by giving puzzle media to grade 2 students of Parakan Elementary School on day 2. Measuring the knowledge of respondents was pretest on the first day and posttest on the 3rd day. Measuring tool used is a questionnaire. Univariate analysis was carried out to see differences in respondents' knowledge on each measurement and bivariate analysis used the Wilcoxon test to see the effect of personal hygiene puzzle media washing hands with soap on knowledge of elementary school students in Temanggung City.

RESEARCH RESULT

Table Frequency Distribution of Students' Knowledge Before Given Puzzle Media

Category	F	%
Well	15	51.7
Enough	11	37.9
Not enough	3	10.3
Total	29	100

Source: Primary Data, 2022

Based on table above, it can be seen that the majority of respondents' knowledge before being given puzzle media was in the good category, namely 15 (51.7%) respondents, the sufficient category was 11 (37.9%) respondents and 3 (10.3%) less knowledge .

Table Frequency Distribution of Students' Knowledge After Being Given Puzzle Media

Category	F	%
Well	22	75.9
Enough	7	24.1
Total	29	100

Source: Primary Data, 2022

The results in table above show that the majority of respondents' knowledge after being given puzzle media was good, namely 22 (75.9%) respondents and 7 (24.1%) sufficient knowledge

Table Results of the Analysis of the Effect of Handwashing Personal Hygiene Puzzle Media on Knowledge of Elementary School Students

Respondent Knowledge	Means	SD	Min-Max	95% CI	Z	p-values
Before being given the puzzle media	71,72	14.1595	30-90	66,34-77,11	-4,239	0.000
After being given a puzzle media	84,14	10.8619	70-100	80.01-88.27		

Source: Primary Data, 2022 and SPSS 16

The results of the Wilcoxon test in table found a p value of 0.000 <0.05, which means that Ho is rejected and Ha is accepted, so it can be said that there is an effect of providing hand washing personal hygiene puzzle media with knowledge to elementary school students in Temanggung.

In table above it can also be seen that there are differences in knowledge before and after giving puzzle media to elementary students where there is an increase in the respondents' knowledge as evidenced by an increase in the mean value, from 71.72 to 84.14.

RESEARCH DISCUSSION

Knowledge of Personal Hygiene Washing Hands with Soap Before Giving Puzzle Media to Elementary School Students in Temanggung City

The majority of respondents' knowledge before being given puzzle media was in the good category, namely 15(51.7%) respondents, the sufficient category was 11(37.9%) respondents and the knowledge was lacking as many as 3(10.3%).

Knowledge or knowledge is the result of human sensing or the result of knowing someone about an object through the senses they have. The five human senses for sensing objects, namely sight, hearing, smell, taste and touch. At the time of sensing to produce knowledge is influenced by the intensity of attention and perception of the object. A person's knowledge is mostly obtained through the sense of hearing and the sense of sight (Iswari, 2021)

The results of the research on the knowledge of respondents about personal hygiene washing hands before being given the puzzle media were mostly in the good category, namely 15 (51.7%). This is because they have been given education about hand washing at school and there is support from parents who also provide education and supervise children washing their hands at home. The results of this study also found 11 (37.9%) respondents with sufficient knowledge and 3 (10.3%) respondents with insufficient knowledge. This was because the respondents forgot what the teacher had said about washing hands.

Providing information about personal hygiene washing hands at school is not done every day, but teachers still supervise and teach students to wash their hands every day. Therefore the knowledge of the respondents varies because the comprehension power of each child to the information received is different, especially for elementary school children (SD). According to Fitriani in Yuliana (2018) Age affects one's comprehension and mindset. With increasing age one's mindset and comprehension will increase so that the knowledge gained will be more and more.

In this study, the teacher and parent factors have supported the respondent's knowledge, but there is still sufficient and good respondent knowledge because the teacher and parent factors are not the only factors that influence the respondent's knowledge where there are supporting factors such as the availability of good advice and infrastructure. important to note.

Knowledge of Personal Hygiene Washing Hands with Soap After Being Given Puzzle Media to Elementary School Students in Temanggung City

The majority of respondents' knowledge after being given the puzzle media was good, namely 22 (75.9%) respondents and 7 (24.1%) sufficient knowledge. This is because respondents have been given information and taught how to wash their hands with interesting methods such as singing and using hand washing puzzle media. Therefore, after being given education with puzzle media, no respondents with less knowledge were found, although not all respondents had good knowledge, where there were respondents with sufficient knowledge because the process from not knowing to knowing required time and the comprehension power of each respondent was different.

Media puzzle is a tool or media that forms small pieces in the form of pictures or writing that can form a word or an arranged image and can help students to practice patience, cohesiveness, and cooperation (Bahar & Rismawati, 2019). Puzzle media is considered the most effective method in efforts to provide health education, especially to children (Widiana, 2019). According to Tika, et al (2019) puzzle media has the advantage of having a variety of colors, is concrete, easy to obtain, not at risk, easy to recognize by children and clear enough to attract children's interest in learning and increase children's resistance to learning. Therefore, by providing education or health education about washing hands with puzzle media, the respondents' knowledge is good and quite good

The Influence of Giving Personal Hygiene Puzzle Media Washing Hands with Soap on Knowledge of Elementary School Students in Temanggung

Based on the results of the Wilcoxon test, a p value of $0.000 < 0.05$ was obtained, which means that H_0 was rejected and H_a was accepted, so that it can be said that there was an effect of providing hand washing personal hygiene puzzle media with knowledge to elementary school students in Temanggung. The results of the study also showed that there were differences in knowledge before and after giving puzzle media to elementary school students where there was an increase in the respondents' knowledge as evidenced by an increase in the mean value, from 71.72 to 84.14.

This is in line with the results of research from Hikmah E (2019) concerning "The effect of playing puzzle therapy on knowledge, attitudes and hand washing skills in children at SD Taman Sukaria I Tangerang City" which found that giving hand washing puzzles to elementary school children can increase knowledge good about washing hands. this happens because when playing puzzles, children get various stimulations, not only visual but fine motor skills and memory are also stimulated.

This result is also in line with the results of research by Safitri YL et al (2021) concerning "The effect of nutrition education with puzzle media on knowledge and attitudes about vegetables and fruit in elementary school children" which found that education with puzzle media increased knowledge about vegetables and fruit in children high school compared to the lecture method because the puzzle media is easy to understand and fun to use.

Based on the results above, the researchers assumed that giving puzzle media to elementary school children could increase knowledge where out of 29 respondents 10 of them experienced an increase in knowledge and no respondents with less knowledge were found after being given puzzle media. This happens because the puzzle media provided is interesting and easy for elementary school children to use and puzzle media can provide gross and fine motoric stimuli. Puzzle media can provide excitement in the child's learning process so that this media can be used as an alternative for parents and teachers in providing information or teaching children to increase their knowledge

CONCLUSION

The majority of respondents experienced an increase in knowledge after giving hand washing personal hygiene puzzle media. There is an effect of providing hand washing personal hygiene puzzle media with knowledge to elementary school students in Temanggung.

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