

Video Method Education and Demonstration of First Aid Capabilities for Dehydration in Children with Diarrhea (Study of Mothers in Siding Village, Tuban)

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Abstract. Dehydration occurs when the body loses too much water and essential fluids in the body. Diarrhea is the main cause of dehydration in toddlers. Toddlers often get diarrhea because their immune system is still vulnerable. If the problem of dehydration is not addressed immediately, it can lead to other health problems such as shock risk. This study aims to determine the effect of video education and demonstration on the ability of first aid dehydration due to diarrhea in mothers with children 0-5 years in Siding Tuban Village. The research design used was Pre Experimental with a one group pretest-posttest approach, a sample of 16 respondents taken from 66 populations through Purposive Sampling. Research instrument Ability was measured by observation sheet and analyzed using Wilcoxon Signed Rank test ($\alpha=0.05$). Before the intervention, 93.8% of respondents had poor skills and after the intervention, 100% of respondents had good skills, which showed an increase in the value of dehydration first aid skills. The results of the analysis obtained $p\text{-value}=0.000 (<\alpha)$, meaning that there is an effect of education on the ability of first aid for dehydration due to diarrhea in children. The combination of video and demonstration methods improves the mother's ability to dehydrate children due to diarrhea through visualization and hands-on practice, facilitating understanding and effective application. It is expected that mothers can carry out first aid for dehydration due to diarrhea in children without guidance, reducing the risk of child mortality.

Keywords : Dehydration, Demonstration, Mother, Video.

1. INTRODUCTION

According to the National Institute of Health NIH, (2015) dehydration is a condition that occurs when the body loses too much water and other fluids needed to work normally. Dehydration is a condition when a person does not have fluids to cover the body's needs (D. Susanti et al., 2019). Loss of body fluids or dehydration can happen to anyone, including children. Babies and children are more susceptible to dehydration than adults.

One of the causes of dehydration in babies and children is diarrhea. According to data (World Health Organization, 2019) diarrhea is the main cause of dehydration in children. Every year there are around 1.7 billion cases of diarrhea with a death rate of 760,000 children under 5 years old. Based on the 2019 Indonesian Health Profile, it shows that the number of diarrhea sufferers in Indonesia is 2,549 people and the Case Fatality Rate (CFR) is 1.14%. According to age characteristics, the incidence of diarrhea in toddlers with the highest incidence is in the 6-11 month age group, which is equal to (21.65%). Then the 12-17 month age group was (14.43%), the 24-29 month age group was (12.37%). According to the East Java Health Service, in 2022, data on diarrhea cases among children under five was found, namely 183,338

sufferers and in Tuban Regency there were 5,653 sufferers, ranked 6th in East Java (Risksedas Jatim, 2022).

The main cause of death in children with acute diarrhea is dehydration due to loss of fluids and electrolytes through feces. This condition often occurs in children, especially children with malnutrition, who are more susceptible to suffering from diarrhea even though it is relatively mild (Zuiatna, 2021). Apart from diarrhea, dehydration can also be caused by vomiting, excessive sweating during fever and very hot weather. Dehydration in toddlers is classified into 3 categories, namely Mild Dehydration, Moderate Dehydration and Severe Dehydration. Mild dehydration shows no symptoms. Moderate and severe dehydration will cause changes in mental status, heart rate, pulse, amount of blood flow to tissues, blood pressure, respiration, eyes, skin turgor and abnormal urine output (Bakry et al., 2023). If the problem of dehydration is not treated immediately, it can give rise to other health problems such as the risk of shock. The risk of shock is a condition when the body is susceptible to a lack of blood supply to the body's tissues. This condition results in failure of body cell function and disturbs the soul and disrupts bodily health (Herdman, 2018). If the body loses a lot of fluids, the body will become dehydrated.

If dehydration due to diarrhea is not treated immediately, it will cause increased mortality and morbidity due to dehydration. So first aid is needed to treat dehydration due to diarrhea in children to reduce the risk of mortality from dehydration due to diarrhea. First aid is a temporary relief and treatment effort for victims before getting further help from paramedics. One example of an emergency that requires first aid is dehydration in children. The mother's role in health problems is important, her role in health problems is how mothers can prevent and treat children who are dehydrated. Because in caring for their children the mother is the executor and decision maker in caring for the child, namely in providing food, providing health care and providing mental stimulus so that in its implementation the mother is expected to be able to provide prevention and first aid for dehydration (Zuiatna, 2021). However, there are still many mothers who do not know how to manage the initial treatment of toddlers who are dehydrated.

In this case, it is necessary to increase mothers' knowledge about helping and preventing dehydration in toddlers. It can be improved through health education regarding first aid for dehydration in toddlers. This is one of the roles of nurses as educators (Health Education) in providing health education (health promotion) to individuals, families, groups and communities as well as a form of dissemination of knowledge to nursing students, among fellow nurses or other health workers. The demonstration method is a teaching method by

demonstrating items, events, rules and the sequence of carrying out an activity, either directly or through the use of teaching media that is relevant to the subject matter being presented (Mentor, 2020). Apart from the demonstration, there is also a video showing the steps to provide first aid for dehydration in children with the aim of making it easier for the audience to understand and attracting the audience's attention. By showing videos of first aid for dehydration, the audience has the advantage of understanding more and having a real picture of how to handle first aid and being able to describe the flow and mechanism of first aid for dehydration in a short time. Based on the above background, researchers are interested in conducting research with the title "The Effect of Education Using Video and Demonstration Methods on the Ability to Perform First Aid for Dehydration in Children Aged 0-5 Years in Siding Village, Bancar District, Tuban Regency".

2. METHODS

This research employed a quantitative research. The research design used in this research is pre-experimental design research, where this research does not use control variables. The population in this study were mothers with children aged 0-5 years in Siding Tuban Village, totaling 66 people. The sample in this study was 32 mothers with children aged 0-5 years in Siding Tuban Village. In this study, a non-probability sampling technique (purposive sampling) was used. The independent variables in this research are the Demonstration and Video Methods. The dependent variable in this study is the ability to provide first aid for dehydration. The instrument used to explain abilities is an observation sheet. To determine the effect of education with demonstration media and videos about first aid for dehydration due to diarrhea in mothers with children aged 0-5 years, statistical analysis was used using the Wilcoxon test with an error rate of $\alpha = 0.05$.

3. RESULTS

The results in this research are:

General Data

Table 1

CHARACTERISTICS		N	%
USIA IBU			
1.	18 – 40 Years	28	87,5
2.	41 – 60 Years	4	12,5
3.	60 Years abd above	0	0
CHILD'S AGE			
1.	0 - 2 Years	8	25

2.	3 - 4 Years	10	31,3
3.	5 Years	14	43,8
EDUCATION			
1.	Not going to school	0	0
2.	Elementary School	14	43,8
3.	Middle School	6	18,8
4.	High School	6	18,8
5.	College	6	18,8
WORK			
1.	Civil Servants	2	6,3
2.	Merchant	6	18,3
3.	Farmer	8	25,0
4.	Entrepreneur	16	50,0
5.	Not Working	0	0
NUMBER OF CHILDREN			
1.	1 Child	16	50,0
2.	2 Children	14	43,8
3.	3 Children	2	6,3
4.	More than 3 children	0	0
CHILD'S HISTORY OF DIARRHEA			
1.	There is history	18	56,3
2.	No History	14	43,8
Total		32	100

Custom Data

Table 2. Distribution of dehydration first aid capabilities due to diarrhea before the intervention (pre test) with video and demonstration method education.

Category Ability	Frequency	%
Good	0	0
Enough	2	6,3
Minus	30	93,8
Total	32	100

Table 3. Distribution of dehydration first aid capabilities due to diarrhea after the intervention (post test) with video and demonstration method education.

Category Ability	Frequency	%
Good	32	100
Enough	0	0
Minus	0	0
Total	32	100

Table 4. Analysis of the effect of education using video methods and demonstrations regarding dehydration due to diarrhea in mothers with children aged 0-5 years in Siding Tuban village

Category Ability	treatment			
	Pretest		Posttest	
	F	(%)	F	(%)
Good	0	0	32	100
Enough	2	6,3	0	0
Minus	30	93,8	0	0
Total	32	100	32	100
Uji Wilcoxon Signed Rank Test		p-value = 0,000 ≤ 0,05		

The results of statistical tests show that before the intervention was carried out, almost all respondents (93.8%) had first aid skills in the poor category. After being given the intervention in total (100%), 32 respondents had first aid skills in the good category. Based on the results of the Wilcoxon Signed Rank Test, it was found that the sig (2-tailed) p-value was $0.000 \leq \alpha 0.05$. So that the p-value $0.000 \leq \alpha$, then H_0 is rejected. It can be concluded that there is an educational effect using video methods and demonstrations regarding dehydration due to diarrhea in mothers with children aged 0-5 years in Siding village, Tuban district.

DISCUSSION

Identify dehydration first aid capabilities before providing education using video methods and demonstrations on dehydration first aid capabilities due to diarrhea in mothers with children aged 0-5 years in Siding Village, Bancar District, Tuban Regency

Based on research results, the level of ability of mothers with children aged 0-5 years before education was carried out using video methods and demonstrations about dehydration due to diarrhea, almost all (93.8%) of respondents' level of ability was in the poor category.

Ability is an individual's ability or ability to master skills and use them to carry out various tasks in a job (Handayani, 2019). According to Stephen, (2020) abilities have 3 types, namely cognitive abilities, affective abilities and psychomotor abilities. The focus of abilities is often directed at psychomotor abilities, because the aspect of psychomotor abilities in the lesson taxonomy is that it focuses more on the process of behavior or implementation which functions to transmit values obtained through cognitive, and internalized through affective means so that they can be organized and applied in real form by the psychomotor domain. . According to Adila, (2020) a person's skills will

become even better if they are trained continuously. This is to improve your abilities so that you become an expert or master a skill area.

Based on the facts and theories above, the researcher's opinion states that psychomotor abilities are skills. These skills can change for the better if a person has obtained information from various sources and practiced continuously. However, this is influenced by several factors, including education, employment and sources of information which will have an impact on a person's abilities.

In terms of educational characteristics, it was found that almost half (43.8%) of the respondents had elementary school education and this data is supported by the fact that access to education in Siding village is still unaffordable and the people of Siding village have to go to neighboring villages to go to school. According to Mudyaharjo, (2016) explains that theory, education is a view or series of opinions about education presented in a concept system. This

research is supported by Notoatmojo, (2014) who stated that the lower a person's level of education, the more difficult it is to receive information so that the less experience they have. Based on facts and theories, low education will make it difficult for someone to receive information. Someone who has low education automatically has poor experience, knowledge and abilities, making it difficult for someone to obtain and access more and more information. Even though the level of elementary school education is that if the skills obtained are related to things that are usually done every day, the respondent will be able to do them, but if the skills obtained are not related to things that are usually done, it tends to be difficult to gain knowledge regarding specific things. So it can be concluded that in this study the respondent's education influences a person's psychomotor abilities.

Based on the characteristics of the mother's age factor, it was found that the majority (87.5%) of respondents were aged 30-40 years or early adulthood. Age is an individual's age which is calculated from the time of birth until the time of several years. As age increases, there will be a decline in performance on cognitive tasks, especially when thinking and receiving new knowledge (Sulistiyowati, 2017).

In the opinion of researchers, age can influence a person's psychomotor abilities, at the age of 30-40 years it is an age where it is difficult to gain new knowledge so they need the latest information. By providing education about providing first aid for dehydration due to diarrhea in children, housewives in that age range so that you can broaden your experience in providing first aid.

Based on job characteristics, data showed that half (50%) of the respondents worked as entrepreneurs. Based on the researcher's opinion, the level of employment is influential in this research, because self-employed individuals here have less exposure to information related to health, although each individual can obtain information from anywhere, the information obtained is less specific. This is reinforced by research conducted (Ifada, n.d.) the need for knowledge and information sources is related to knowledge, so formal work requires higher education and work as a medium makes it easier for someone to obtain information. So it is more likely for them to get this knowledge from the environment where they live.

Based on the characteristics of a child's history of diarrhea, it was found that the most data (56.3%) of children had a history of diarrhea and the pre-test results showed that most of the mothers' knowledge in this category was lacking, this was supported by a lack of exposure to information and some of the mothers were still indifferent to handling first aid. dehydration due to diarrhea.

Based on the researcher's opinion, data showing a high percentage of children with a history of diarrhea (56.3%) and low knowledge of mothers in treating diarrhea, especially in first aid for dehydration, indicates a serious problem in children's health and the public health education system. So, with video methods and demonstrations of first aid for dehydration due to diarrhea in children, it can increase mothers' knowledge and readiness in dealing with cases of diarrhea in children, thereby reducing the risk of serious complications due to dehydration and improving children's overall health. Apart from that, it is also necessary to pay attention to environmental and socio-economic factors that may contribute to the high rate of diarrhea in children, as well as improving the quality of basic health services to support the effective handling of diarrhea cases at the community level.

Identifying first aid capabilities for dehydration after providing education using video methods and demonstrations regarding first aid capabilities for dehydration due to diarrhea in mothers with children aged 0-5 years in Siding Village, Tuban Regency

Based on the research results, the level of ability after education using the video method and demonstration regarding the ability to provide first aid for dehydration due to diarrhea, all (100%) of the respondents' level of ability was in the good category. Psychomotor abilities are abilities related to a person's skills or ability to act after a person has gained learning experience (Sudaryono, 2014). Skills will be better if you continue to train in order to improve your abilities so that you become more expert or master a skill area. Especially for mothers with children aged 0-5 years who are susceptible to dehydration due to diarrhea, it is necessary to increase their ability to provide first aid if their child experiences dehydration due to diarrhea.

Based on the characteristics of the mother's age factor, it was found that the majority (87.5%) of respondents were aged 30-40 years or early adulthood. Age is an individual's age which is calculated from the time of birth until the time of several years. As age increases, there will be a decline in performance on cognitive tasks, especially when thinking and receiving new knowledge (Sulistyowati, 2017). Based on facts and theories, maternal age influences a person's psychomotor abilities, 18-40 years old is an age where it is easy to gain new knowledge so they need the latest information, by providing education about providing first aid for dehydration due to diarrhea, mothers of that age range can expand experience. By providing education using video media and demonstrations on first aid for dehydration due to diarrhea, namely by providing lessons given by mothers to children aged 0-5 years using video methods and demonstrations on first aid for dehydration due to diarrhea with a time of ± 45 minutes. With the aim that after being given education using video and demonstration methods that use not just one method but combining 2 methods at one time, which if these two methods are

combined simultaneously will make it easier for mothers with children aged 0-5 years to remember, understand, and able to provide first aid for dehydration due to diarrhea, with this video method where the presentation in the video clearly shows something that was not previously known, shows the procedural stages in a lesson, the material is clearer, increases knowledge, imagination and critical thinking power, so that This mother with children aged 0-5 years has an experience and new learning. Meanwhile, using the demonstration method, mothers with children aged 0-5 years practice directly the stages of first aid which are explained in the video. Practicing them directly will make it easier for mothers to apply them at home.

Apart from that, respondents also received information about dehydration, among others, had heard about incidents of child dehydration, had seen their neighbors doing diarrhea management, had done it but not optimally, so that after being given education by researchers using this media, respondents were more active, understood, clear, understand and be able to properly administer first aid for dehydration due to diarrhea.

This is proven by the results of data analysis on special data after being given treatment or post-test results increasing, namely with the average value of the respondent's ability category being in the good category, the results after being given education the respondent becomes more skilled or the respondent's psychomotor ability has improved because the respondent has obtained continuous learning and practice experience and the material provided through video and demonstration methods is easy to follow as well as being supported by previously acquired knowledge and information. Which means that education using video and demonstration methods can increase the ability to provide first aid for dehydration due to diarrhea in children.

Analyzing the effect of education using video & demonstration methods regarding dehydration due to diarrhea in mothers with children aged 0-5 years in Siding village, Tuban district.

Based on the analysis of the Wilcoxon Signed Rank statistical test, the sig-(2-tailed) p-value = $0.000 \leq \alpha 0.05$ is obtained. This shows that H1 is accepted, which means that there is an effect of education using video methods and demonstrations on the ability to provide first aid for dehydration due to diarrhea. in mothers with children aged 0-5 years in Siding Village, Bancar District, Tuban Regency.

This is in accordance with the theory of health education or education as any form of effort aimed at influencing other people, both individuals and groups, so that they do what health practitioners expect (Notoatmodjo, 2014). Video learning media is media that presents audio and visuals containing a learning message, including concepts, principles, procedures,

theories, application of science to help understand learning material (Riyana, 2017). The advantage of the demonstration method is that through the demonstration method, verbalism can be avoided because the audience focuses on the presenter and the process of delivering the material will be more interesting. Apart from that, the audience can observe directly and have the opportunity to compare theory and reality. In this way, the audience will be more confident in the truth of the material (Mentor, 2020). A person's skills will basically be better if they continue to be trained to improve their abilities so that they will become an expert or master of one of the existing skill areas Adihla, (2020) In line with research conducted by Thimonty (2018) that the abilities a person has are based on the environment, way of socializing and level of knowledge. Abilities based on the level of knowledge can be obtained through receiving information using various media, including through videos, demonstrations, and role plays.

Based on the facts and theories above, the use of video methods and repeated demonstrations can influence mothers' psychomotor abilities in providing first aid for dehydration due to diarrhea in children aged 0-5 years. This happens because by using interventions that are interesting for respondents to see and understand regarding how to provide first aid for dehydration due to diarrhea in children, so that with this method, people get education, they can see firsthand how to provide first aid for epistaxis and with the video, mothers can learn how to provide assistance. Firstly, in cases of dehydration due to diarrhea in children independently and the mother's psychomotor abilities can increase.

Apart from that, the results of this research are also influenced by demographic factors or general data of the respondents. However, the biggest influencing factor is the information factor, where mothers with children aged 0-5 years can carry out dehydration management due to increased knowledge from the information or treatment obtained. Apart from that, the increase in the level of ability in the good category is strengthened by changes in the mean value before and after the intervention. By providing education using video methods and demonstrations, it is hoped that the mother's ability will increase.

Based on the explanation above, there is an increase in the ability of mothers with children aged 0-5 years to provide first aid for dehydration due to diarrhea in Siding Village, Bancar District, Tuban Regency.

4. CONCLUSION AND LIMITATION

Conclusion

There is an educational influence using video methods and demonstrations regarding first aid for dehydration due to diarrhea in children which can increase the ability of mothers with children aged 0-5 years to provide assistance for dehydration in Siding Village, Tuban Regency.

Limitation

There are no limitations in this research

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