



The Impact of Health Counseling on Parental Behavior in Preventing Diarrhea in Toddlers in Keluas Hulu Village

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ABSTRACT

Introduction: Several diseases closely related to environmental sanitation remain persistent health issues in society, one of which is diarrhea. This is evidenced by the high number of diarrhea cases, particularly among toddlers, visiting healthcare facilities. This study aims to determine the impact of health education on parental behavior in preventing diarrhea in toddlers in Keluas Hulu Village.

Methods: This research uses a quantitative method with a pre-experimental design and employs a One Group Pretest-Posttest Design. The population consisted of 101 individuals, with a sample size of 43 mothers of toddlers. The data were tested using Wilcoxon test.

Results: After giving the health education, mean score of knowledge was increased from 7.1 to 8.5 (P-value = 0.000). Mean score of attitude was increased from 31.1 to 31.9 (P-value = 0.002). Mean score of practice was increased from 5.2 to 5.6 (P-value = 0.043).

Conclusion Health education significantly impacts parental behavior in preventing diarrhea in toddlers in Keluas Hulu Village, the working area of Ulak Muid Community Health Center, Melawi Regency

Keywords: Attitude, Behavior, Diarrhea, Knowledge, Health education

INTRODUCTION

Several diseases closely related to environmental sanitation remain persistent public health problems in society, one of which is diarrhea. This is evidenced by the high number of diarrhea cases, particularly among toddlers, visiting healthcare facilities (Setyawan, D.A., and Setyaningsih, W., 2021).

Diarrhea or dysentery is a condition where an individual has bowel movements with a watery consistency and a frequency of three or more times per day, lasting less than 14 days (Amin, L.Z., 2015).

Diarrhea continues to be one of the main public health challenges, ranking third as the leading cause of morbidity and mortality in

children across many countries, including Indonesia. It is estimated that more than 1.3 billion diarrhea cases occur annually, resulting in approximately 3.2 million deaths among toddlers. On average, each child experiences diarrhea about 3.3 times a year, and around 80% of deaths caused by diarrhea occur in children under the age of two (Indonesian Ministry of Health in Wibowo, 2021).

Diarrhea is an infectious disease with the potential to cause outbreaks and remains the leading cause of death among toddlers worldwide (Indonesian Ministry of Health, 2020). According to UNICEF (United Nations Children's Fund), a child dies from diarrhea every 30 seconds. Diarrhea remains a major issue, with an incidence rate of approximately 200-400 cases per 1,000 individuals annually (Sugiarto, Pitriyani S., 2019).

According to WHO and UNICEF's 2022 Performance Report, an estimated 2 billion cases of diarrhea occur globally each year, resulting in about 1.9 million deaths among toddlers. Of these deaths, approximately 78% occur in developing countries, particularly in Africa and Southeast Asia (Indonesian Ministry of Health, 2022).

The latest data from the 2020 Indonesian Nutritional Status Survey recorded a diarrhea prevalence rate of 9.8%. According to the 2020 Indonesian Health Profile, one of the leading causes of death among children aged 29 days to 11 months is infectious diseases, particularly diarrhea. Similar to 2020, diarrhea accounted for 14.5% of deaths and remained a major health concern. Among toddlers (aged 12-59 months), deaths due to diarrhea reached 4.55% (Indonesian Ministry of Health, 2022).

In 2021, West Kalimantan recorded 36,089 diarrhea cases, the highest being in Kayong Utara District, with 5,077 cases (West Kalimantan Communication and Information Office, 2021). In 2022, the prevalence of diarrhea among toddlers treated at healthcare facilities was 14,615 cases or 14.6% of the estimated 71,264 cases (West Kalimantan Provincial Health Office, 2022). According to Komdat Kesmas data from January to

November 2021, diarrhea caused 14% of deaths among post-neonatal groups (Indonesian Ministry of Health, 2022).

According to the 2018 West Kalimantan Riskesdas, the prevalence of diarrhea in Melawi District was 1,163 cases. In 2022, diarrhea cases among all age groups were 15%, with service coverage of 15.8%, while diarrhea cases among toddlers were 19%, with service coverage of 18.9% (West Kalimantan Provincial Health Office, 2022).

According to the 2022 Ulak Muid Health Center Profile, diarrhea ranked 4th among the top 10 most common diseases, with 171 cases, and was the main target of the health promotion program through education about the 10 most common diseases. Based on the 2023 Epidemiological Surveillance Report from Ulak Muid Health Center, diarrhea cases occurred consistently every month, peaking in October with 22 cases.

Previous research conducted by Nurbaiti concluded that diarrhea prevention efforts must be implemented in every household, along with early management and treatment of diarrhea to reduce its incidence (Nurbaiti, N., Priyadi, P., & Maksuk, M., 2021). Furthermore, the government has introduced various programs for diarrhea prevention, as untreated diarrhea can lead to stunting. One such program is the issuance of Ministry of Health Regulation No. 852/2008 regarding STBM (Community-Based Total Sanitation), with one of its flagship initiatives being the Open Defecation Free (ODF) program. The ODF program has been implemented in several villages, the purpose of the study to reduce and prevent diarrhea in both children and adults in Indonesia (Sinum, M.B.A., 2021).

METHODS

The research design is structured to identify correlations between the variables of the study, arranged based on theoretical frameworks in research methodology. This study employs a one group pretest-posttest design. This

approach is a type of pre-experimental research where no control group is involved.

The population of this study consists of all mothers with toddlers in Keluas Hulu Village, within the working area of Ulak Muid Health Center, Melawi Regency, totaling 101 individuals. The sample size is 43 participants, selected using Proportional Random Sampling, a sampling method that considers the proportional distribution of sub-populations within the entire population. The independent variable in this study is health education, the dependent variable is knowledge, attitudes and actions of parents in preventing diarrhea. The data obtained were tested using non-parametric statistics in the form of the Wilcoxon test to determine the impact between variables.

RESULTS

The analysis focuses on three key aspects of respondent behavior: knowledge, attitudes, and practices related to preventing diarrhea in toddlers. These aspects were measured before and after health education interventions using pretest and posttest scores.

Based on table 1, the age of the respondents was mostly 26-45 years old, as many as 26 respondents (60.5%). Meanwhile, based on education, those with low education were 37 respondents (86.1%), those with high education were 6 respondents (13.9%).

Based on Table 2, the results of the mean difference test indicate an increase in knowledge scores before and after the health education session. The mean score before the intervention was 7.1, which increased to 8.5 after the session, resulting in a mean difference of 1.4. Statistical analysis using a non-parametric test (Wilcoxon) revealed a P-Value of 0.000 (<0.05), indicating a significant difference in respondents' knowledge before and after the health education session. It can be concluded that health education has a significant effect on parental knowledge in preventing diarrhea in toddlers in Keluas Hulu Village in 2024.

Table 1. Respondent Characteristics

Characteristics	n	%
Age		
17-25 years	15	34,9
26-45 years	26	60,5
≥46 years	2	4,7
Education		
Low	37	86,1
High	6	13,9
Total	43	100,0

Table 2. The Effect of Health Education on Behavior in Preventing Diarrhea in Toddlers in Keluas Hulu Village

Variable	n	Mean	SD	P-Value
Knowledge				
Before	43	7,1	1,5	0,000
After	43	8,5	0,7	
Attitudes				
Before	43	31,1	2,1	0,002
After	43	31,9	1,6	
Practices				
Before	43	5,2	1,1	0,043
After	43	5,6	0,8	

Based on Table 2, the results of the mean difference test indicate an increase in attitude scores before and after the health education session. The mean score before the intervention was 31.1, which increased to 31.9 after the session, resulting in a mean difference of 0.8. Statistical analysis using a non-parametric test (Wilcoxon) revealed a P-Value of 0.002 (<0.05), indicating a significant difference in respondents' attitudes before and after the health education session. It can be concluded that health education significantly affects parental attitudes in preventing diarrhea in toddlers in Keluas Hulu Village in 2024.

Based on Table 2, the results of the mean difference test indicate an improvement in practice scores before and after the health education session. The mean score before the intervention was 5.2, which increased to 5.6 after the session, resulting in a mean difference of 0.4. Statistical analysis using a non-parametric test (Wilcoxon) revealed a P-

Value of 0.043 (<0.05), indicating a significant difference in respondents' practices before and after the health education session. It can be concluded that health education has a significant effect on parental practices in preventing diarrhea in toddlers in Keluas Hulu Village in 2024.

DISCUSSION

1. Parental Knowledge

Health education has a significant impact on increasing parental knowledge in preventing diarrhea in toddlers. The findings of this study align with research conducted by Yunita (2022) and Dewi (2023) that education has relationship on knowledge in preventing diarrhea in toddlers. Knowledge is a combination of information and understanding, as well as the potential to act on something that is embedded in one's mind (Meliono in Susilawati et al., 2022). Knowledge is the development of "knowing" and the integration of an individual's level of understanding after sensory perception of a specific object. Sensory perception is carried out using human senses, such as sight, hearing, smell, taste, and touch (Notoatmodjo, 2020).

According to the Ministry of Health of Indonesia in Nurmala et al. (2018), health education is aimed at increasing knowledge and abilities to change behaviors for better health in individuals, groups, and communities, provided through learning or instructions. Additionally, Tumurang (2018) in his book "Health Promotion" also stated that an individual's knowledge and abilities can improve through health education using learning techniques that aim to change and improve behaviors to create a healthy life free from disease. the researcher believes that the increase in knowledge occurred as a result of the effectiveness of the stimulus provided, namely health education. When carried out effectively, using appropriate media and

methods, health education can increase respondents' knowledge.

2. Parental Attitudes

Health education has a significant impact on changing parental attitudes toward diarrhea prevention in toddlers. The results of this study are consistent with research Ariani (2022) and Fitriani (2019) that education had a significant impact on the management of diarrhea in toddlers.

Adventus et al. (2019) explained that attitude is a person's internal reaction to a stimulus that is directly associated with the alignment of that reaction with a certain stimulus, forming an emotional response. Dewi (2023), states that a person's attitude toward taking action in diarrhea prevention can improve and become positive through health education. Supariasa (2018) also states that a person's attitude is influenced by several factors, including personal experience, culture, education, the influence of significant others, emotions, and mass media. Based on Supariasa's statement, the health educator shapes attitudes through health education, thereby promoting positive attitudes among respondents toward diarrhea prevention in toddlers. Health education serves as a stimulus that influences the respondents' thoughts and behaviors, which is reflected in a positive change in their attitudes toward preventing diarrhea in toddlers.

3. Parental Practices

Health education has a significant impact on changes in parental actions toward diarrhea prevention in toddlers in Keluas Hulu Village. The results of this study align with the research by Wibowo (2021) and Putu & Erawan (2020) health education using educational game methods on the changes in students' actions regarding diarrhea prevention.

According to Tumurang (2018), action (practice) is the tangible manifestation of knowledge and attitudes that form a

behavior. However, attitude does not automatically result in action unless there are supporting factors or conditions that make it possible. It is called a practice/action when a person knows the stimulus or health object, then assesses it based on their knowledge, and subsequently implements or practices what they know or have an attitude toward (Adventus, 2019).

Wibowo (2021) states that the goal of health education is a process of change toward behavior that aligns with the desired outcomes. Dewi (2023) also says that a person's attitude toward taking action for diarrhea prevention can improve and become more positive due to health education. Based on this, in this study, the communicator (health educator) made efforts to improve respondents' actions (practices) regarding diarrhea prevention to ensure they support the desired behaviors, through health education. This supports the S-O-R theory (Stimulus-Organism-Response), where the stimulus (health education) influences the organism (respondents), leading to a positive response, in the form of improved actions.

CONCLUSION

The conclusion of this study shows that health education has a significant impact on parents' knowledge, attitudes, and actions in preventing diarrhea in toddlers in Keluas Hulu Village, Melawi Regency, in 2024. This is evidenced by a significant increase in the average scores for knowledge (P-value = 0.000), attitudes (P-value = 0.002), and actions (P-value = 0.043) of the respondents after the health education was conducted.

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