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Analysis of Knowledge and Attitudes of Mothers with Toddlers at Risk of Diarrhea in the Moramo Health Center Working Area South Konawe Regency

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ABSTRACT

Introduction: The incidence of diarrhea in Indonesia is the second leading cause of death in children under 5 (five) years of age. Data on the number of cases of diarrhea in children in 15 districts and 2 (two) cities in Southeast Sulawesi Province. South Konawe Regency is in second place with the most cases of diarrhea in toddlers, totaling 77 cases. South Konawe Regency has 24 Community Health Center working areas. In the Moramo Community Health Center area, there were 41 cases of diarrhea in 2021.

Method: The type of research used in this research is quantitative with an observational method with a Case Control Study Design approach. This research was carried out in August 2022. This research will be carried out in the Moramo Health Center Work Area, South Konawe Regency, Southeast Sulawesi Province. With a sample of 76 respondents. The sampling technique used in this research was Simple Random Sampling.

Result: The results of statistical tests using the Chi-Square test found that the mother knowledge with X^2_{count} results were $13.483 > X^2_{table}$ (3.841) and the OR value is 6.873. And the mother attitudes with X^2_{count} results were $9.919 > X^2_{table}$ (3.841) and OR value is 4.720.

Conclusion: It was found that mother's knowledge and attitude are the risk factor of the diarrhea incidence in toddlers at the Moramo Health Center. It is hoped that parents, especially mothers who have toddlers, can increase their knowledge about the causes of diarrhea, improve their attitudes to avoid diarrheal disease, especially in toddlers.

Introduction

According to the World Health Organization (WHO), diarrhea is the occurrence of defecation

with a consistency that is more liquid than usual, with a frequency of three or more times in a 24 hour period. Diarrhea occurs worldwide and

causes 4% of all deaths and 5% of health losses. Globally, there has been an increase in the incidence of diarrhea and deaths due to diarrhea in children under five from 2015-2017. 2017 WHO data states that almost 1.7 billion cases of diarrhea occur in children with a mortality rate of around 15% in the world in children under five each year. Diarrhea is still the main cause of death in children under 5 (five) years of age. Apart from that, the prevalence of diarrhea is more common in the toddler group.^[1]

The incidence of diarrhea in Indonesia is the second leading cause of death in children under 5 (five) years of age. Based on data from the Ministry of Health of the Republic of Indonesia, the prevalence of diarrhea in 2018 was 37.88% or around 1,516,438 cases in toddlers. The prevalence increased in 2019 to 40% or around 1,591,944 cases in children under five.^[2]

In Indonesia, children suffer from diarrhea more than 12 times per year and this is the cause of 15-34% of all deaths. Throughout the world, this disease causes the deaths of four million children every year. Every year there are an estimated 2.5 billion cases of diarrhea in children under five, and there has been almost no change in the last two decades regarding cases of diarrhea in toddlers and children.^[3]

According to data from the Ministry of Health in 2019, diarrhea service coverage in Indonesia reached 40%, in 2020 service coverage for diarrhea sufferers in Indonesia was 28.9%, and in 2021 service coverage for diarrhea sufferers reached 23.8%. The highest incidence of toddlers suffering from diarrhea was found in Banten province (55.3%) and the lowest incidence occurred in North Sulawesi (3.3%). Meanwhile in Southeast Sulawesi, the service for diarrhea sufferers among toddlers was 13.7%. According to 2021 diarrhea service data, 361 children were most found at ages 0-6 months, while at ages 6-12 months there were 1194 children, and at ages 1-4 years there were 5138 children.^[2]

Data on the number of diarrhea cases in children in 15 districts and 2 (two) cities in Southeast Sulawesi Province, namely Kendari City, totaled 2,625 cases in 2018, in 2019 there were 2,258 cases, in 2020 there were 222 cases and in 2021 there were 85 cases. Kolaka Regency had 2,186 cases in 2018, in 2019 there were 1,676 cases, in 2020 there were 1,048 cases and in 2021

there were 68 cases. South Konawe Regency in 2018 numbered 1,786 cases, in 2019 there were 620 cases, in 2020 there were 1,305 cases and in 2021 there were 77 cases.^[4]

The cause of diarrhea can be caused by bacteria, viruses or parasites that infect the stomach or intestines; the specific germs involved depend on the geographic area, level of sanitation and cleanliness. Diarrhea is the cause of 9% of hospitalizations in children under five years old. The causes of diarrhea in children are caused by maternal factors, namely mother's knowledge, mother's education, mother's hand washing habits when giving food to children. The causes of diarrhea in children are caused by breastfeeding, nutritional status, immunization and personal hygiene in children. The habit of washing hands with soap can actually reduce the incidence of diarrhea by up to 50% or the same as saving around 1 (one) million children in the world from this disease every year. Diarrhea is a disease that is easily transmitted, especially at the change of seasons. Usually at this time of the year there are lots of flies (bacteria-carrying animals). These flies land on food, so the food becomes unhygienic and can cause diarrhea. The consequence of diarrhea is a lack of body fluids and salts which are very useful for human survival.^[5]

The basic reason for choosing South Konawe Regency as a research location is because it is one of the districts in Southeast Sulawesi Province with the highest number of cases of diarrhea and is ranked first. The majority of those who suffer from diarrhea are toddlers aged 1-4 years, this is caused by various factors, namely environmental factors as well as maternal diet and habits.

The basic reason for choosing Moramo Health Center as the research location was because based on data from 2019 to 2020 for the South Konawe district, Moramo Health Center was ranked first in diarrhea cases with 41 cases compared to other health centers in South Konawe Regency, this was caused by various factors, including environmental factors, behavioral factors, nutritional factors, and socio-economic factors.

Method

The type of research used in this research is quantitative with an observational method with a Case Control Study Design approach, the population is 41 toddlers and the control population is all mothers who have toddlers who do not suffer from diarrhea who live close to those who have toddlers with diarrhea. The total sample was 76 respondents with 38 cases and 38 controls. The sampling technique using Simple Random Sampling.

Result

Table 1 shows that among the 38 case group respondents there were 28 respondents (73.7%) who had insufficient knowledge and 10 respondents (26.3%) who had sufficient knowledge. Then, among the 38 respondents in the control group, there were 11 respondents (28.9%) who had insufficient knowledge and 27 respondents (71.1%) who had sufficient

knowledge. Based on the results of statistical tests using the Chi-Square test, the calculated X^2 count results were $13.483 > X^2$ table (3.841) and Odds ratio analysis shows that the OR value is 6.873, indicating that mothers who have less knowledge are 6.8 times more likely to have diarrhea in toddlers than mothers who have sufficient knowledge.

Table 2 shows that among the 38 case group respondents there were 11 respondents (28.9%) who had a sufficient attitude and 27 respondents (71.1%) who had a poor attitude. Then, among the 38 respondents in the control group, there were 25 respondents (65.8%) who had a sufficient attitude and 13 respondents (34.2%) who had a poor attitude. Based on the results of statistical tests using the Chi-Square test, the calculated X^2 count results were $9.919 > X^2$ table (3.841) and Odds ratio analysis shows that the OR value is 4.720, indicating that mothers who have a poor attitude are 4.7 times more likely to have diarrhea in toddlers than mothers who have a fair attitude.

Table 1.
Knowledge Risk Factors for the Occurrence of Diarrhea in Toddlers in the Moramo Health Center Working Area, South Konawe Regency

Knowledge	Occurrence of Diarrhea				Total		Statistic Result
	Case		Control				
	n	%	n	%	n	%	
Enough	10	26.3	27	71.1	37	48.7	X^2 count = 13.483 X^2 table = 3.841 $\Phi = 0.448$ OR = 6.873
Not enough	28	73.7	11	28.9	39	51.3	
Total	38	100	38	100	76	100	

Table 2.
Risk Factors for Attitudes towards the Incident of Diarrhea in Toddlers in the Moramo Health Center Working Area, South Konawe Regency

Attitude	Occurrence of Diarrhea				Total		Statistic Result
	Case		Control				
	n	%	n	%	n	%	
Enough	11	28.9	25	65.8	36	47.4	X^2 count = 9.919 X^2 table = 3.841 $\Phi = 0.469$ OR = 4.720
Not enough	27	71.1	13	34.2	40	52.6	
Total	38	100	38	100	76	100	

Discussion

Knowledge Risk Factors for the Incidence of Diarrhea In Toddlers

Knowledge is very important in providing insight into a person's attitudes and actions. In the Indonesian dictionary it is stated that knowledge or knowing is understanding after seeing, witnessing, experiencing or being taught. According to Rusli Ngatimin, knowledge is part of the memory of things that have been learned and this may involve remembering a large collection of detailed material for theory, but what is given is using memory for appropriate information.

The research results showed that of the 76 respondents, there were 39 respondents (51.3%) have less knowledge. Mothers' lack of knowledge about diarrhea is caused by several factors, including mothers not knowing in detail about the causes of diarrhea, the main actions taken to prevent diarrhea, the transmission of diarrheal disease and the types of food recommended for diarrhea sufferers. Apart from that, some mothers who have less knowledge are also due to having a low level of education, namely elementary and middle school.

The mother's level of education greatly influences how a person acts and looks for causes and solutions in his life. Highly educated people will usually act more rationally. Therefore, educated people will more easily accept new ideas.^[6]

The results of the hypothesis test showed that among the 38 respondents who had children suffering from diarrhea (cases), there were still 10 respondents (26.3%) who had sufficient knowledge. This is because mothers who have toddlers suffering from diarrhea are not caused by the mother's lack of knowledge about diarrhea, but are caused by other factors, namely children who do not wash their hands before eating and factors that the food consumed by children is less hygienic, especially children's snacks outside the home.

The food factor is caused by the existing toxins not being able to be absorbed properly and there can be an increase in intestinal peristalsis which ultimately causes a decrease in the opportunity to absorb food or drink contaminated with microorganisms and is most often caused by bacterial infections such as *Escherichia coli*, *Salmonella* and *Vibrio cholera*.^[7]

Furthermore, the results of the hypothesis test also showed that among the 38 respondents who had children who did not suffer from diarrhea (controls), there were still 11 respondents (28.9%) who had insufficient knowledge. This is caused by several factors, such as children receiving complete basic immunization when they are babies, and babies being given exclusive breast milk by their mothers until the age of 6 months. If these two factors are carried out correctly, they can reduce the risk of infection with bacteria, especially bacteria that cause diarrhea.

Based on the results of statistical tests using the Chi-Square test, the calculated X^2 results were $13.483 >$ Odds ratio analysis shows that the OR value is 6.873, indicating that mothers who have less knowledge are 6.8 times more likely to have diarrhea in toddlers than mothers who have sufficient knowledge.

From the research results of a total of 38 cases of toddlers who experienced diarrhea with less knowledge, there were 31 people, where on average the mothers did not know the specific meaning of diarrhea (87.09%), the causes of diarrhea (80%), and did not know how to prevent diarrhea (83%).

Based on the results of this research, it can be seen that the lower the mother's knowledge, the less good the increase in diarrhea prevention will be. Because armed with good knowledge, a mother knows how diarrhea can occur and knows what must be prevented so that the toddler does not suffer from diarrhea and knows the dangers that occur. This is indeed in accordance with what was stated by^[8] that knowledge is a very important domain in shaping one's actions. From experience and research it has been proven that behavior that is based on knowledge is more lasting than behavior that is not based on knowledge.

One way to increase knowledge with efforts that can be made to increase mothers' knowledge can be done by providing counseling either directly or indirectly and this counseling should be carried out regularly. Therefore, improving the skills of every member of society to be able to maintain and improve their own health is very important. This means that each individual in society should have good knowledge and abilities regarding ways to maintain their health.^[7]

The results of this study are in line with research^[9] that the statistical test results obtained a

p value (0.024) < α (0.05) so that H_a was accepted. This means that it can be seen that there is a relationship between the respondent's knowledge and the incidence of diarrhea in toddlers at the Padangsidempuan Regional Hospital for Children in 2020.

Risk Factors for Attitudes Towards the Incidence of Diarrhea In Toddlers

Attitude is a person's reaction or response that is still closed to a stimulus or object. Manifestations of attitudes cannot be seen directly, but can only be interpreted first from closed behavior. Attitude clearly shows the connotation of appropriate reactions to certain stimuli, which in everyday life is an emotional reaction to social stimuli. Attitude is not yet an action or activity, but is a "pre-disposition" of action or behavior. This attitude is still a closed reaction, not an open reaction to open behavior.^[10]

The research results showed that of the 76 respondents, there were 40 respondents (52.6%) have less attitude. Respondents who have poor attitudes about diarrhea are caused by several factors, including mothers who do not agree or are doubtful about the statement that breastfeeding should be reduced when children have diarrhea, starch water is good to give to children who suffer from diarrhea as a substitute for fluids and giving additional fluids to children who suffer from diarrhea. very important. Apart from that, mothers are still hesitant to take their toddlers to health services.

The attitude of mothers who are still hesitant to take their toddlers to health services is probably due to the mother's lack of knowledge about diarrhea so that the resulting attitude is also poor. Diarrhea must be treated quickly and appropriately. If this is not done immediately, it will threaten the safety of the child's life. By taking the child to the nearest health service facility, the child will receive optimal care and treatment. So that the child's healing process goes well.

Giving exclusive breast milk to babies or toddlers will reduce the incidence of diarrhea in babies or toddlers. This is supported by research from^[11], which said that 64% of respondents who gave exclusive breast milk to their babies, 56% of them did not experience diarrhea.

Based on the results of statistical tests using the Chi-Square test, the calculated X^2 results were 9.919 > Odds ratio analysis shows that the OR

value is 4.720, indicating that mothers who have a poor attitude are 4.7 times more likely to have diarrhea in toddlers than mothers who have a fair attitude.

Cleanliness in everyday life is very important and must be paid attention to, because cleanliness affects a person's health. A person experiencing illness could be due to lack of attention to hygiene issues. Furthermore, the results of the hypothesis test also showed that among the 38 respondents who had children who did not suffer from diarrhea (controls), there were still 13 respondents (34.2%) who had poor attitudes. This is because children have good nutritional status so that children are not easily attacked by infectious diseases such as diarrhea.^[12] stated that malnutrition can cause susceptibility to infection due to the negative impact of changes in the protection provided by the skin and mucous membranes as well as inducing changes in immune function.

Based on the results of this research, it can be seen that the better the mother's attitude, the incidence of diarrhea will decrease. Attitude is an individual's availability to carry out actions and not as an implementer of certain motives. Attitude does not necessarily become an action but attitude becomes a predisposing factor for action. To generate a response in the form of an attitude starts from the cognitive or knowledge domain. Information and knowledge influence the formation of attitudes. During counseling, respondents will receive information and knowledge that was previously unknown. Because they got the right knowledge, respondents changed their attitudes.^[13]

Conclusion

It is hoped that parents, especially mothers who have toddlers, can increase their knowledge about the causes of diarrhea, improve their attitudes to avoid diarrheal disease, especially in toddlers. And cadres can work together with the community health center to provide education about diarrheal diseases to mothers of toddlers so that they can increase mothers' knowledge, attitudes and actions in efforts to prevent diarrhea in toddlers.

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