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THE RELATIONSHIP OF PARENTAL BEHAVIOR IN HANDLING ORALHYDRATION WITH DEHYDRATION IN TODDLERS WITH DIARHEA IN ENVIRONMENT VIII, SUMBER MULYO REJO VILLAGE, AST BINJAI DISTRICT NORTH SUMATRA, 2021

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ABSTRACT

Based on data from the World Health Organization (WHO), there are almost 1.7 billion cases of diarrhea occurring in the world each year. Diarrhea is the second leading cause of child mortality. In Indonesia, children suffer from diarrhea more than 12 times per year, which is the cause of death for 15-34% of all causes of death. The primary treatment for diarrhea itself is to overcome the occurrence of dehydration. Rehydration therapy is very effective in reducing diarrhea mortality due to dehydration; by WHO in 2015, proper management of dehydration is using low osmolarity oral rehydration fluids such as Salt Sugar Solution or ORS. The preliminary study results are known; one of the efforts of parents in overcoming dehydration in their children who suffer from diarrhea is by giving fluids, but with the amount, frequency, and type of fluids that are not by the fluids needed by the body. Parents only give fluids when the child asks for and complains of feeling thirsty. The formulation of the problem in this study is "How is the Relationship between Parental Behavior in Handling Oralhydration with the Incidence of Dehydration in Toddler Children with Diarrhea, Sumber Mulyo Rejo Village, East Binjai District, North Sumatra in 2021. This type of research uses a correlation with a cross-sectional approach. The population and sample are parents—as many as 42 children under five and have experienced diarrhea (dehydration). The results showed the value of df = 2 and P-value = 0.002 less than 0.05 (0.002 < 0.05) then the hypothesis was accepted, so it can be concluded that there is a significant relationship between the behavior of parents in handling oral hydration with the incidence of dehydration in children under five with diarrhea. As a suggestion, it is hoped that health workers can educate parents about the management of dehydration and recognize signs of dehydration in children with diarrhea.

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1. Introduction

Diarrhea is still a significant cause of morbidity and mortality in children under five globally. This is because the toddler's immune system is still weak. In addition, toddlers' lives are still very dependent on parents, especially on mothers, so that health problems in toddlers are also the responsibility of parents, which cannot be underestimated. One of the health problems of toddlers in Indonesia that still often occurs is diarrhea (Christy, 2014).

Data from Riskesdas 2017 states that diarrheal disease from year to year is still the leading cause of infant and under-five mortality in Indonesia (Anggraeni and Farida, 2015).

Contents lists available at IOCScience

Science Midwifery

journal homepage: www.midwifery.iocspublisher.org

The high mortality rate due to diarrhea will negatively impact the quality of health services because the child mortality rate (AKA) is one indicator to assess optimal health status. The lack of success in efforts to prevent diarrhea is one of the factors that must be considered. If prevention efforts are not appropriately handled, diarrheal diseases in children under five will increase. According to data obtained from the North Sumatra provincial health office, 32,101 cases were found in 2018, with 82.6% of the population receiving treatment for diarrhea for all ages, from toddlers to older adults (North Sumatra Provincial Health Office, 2018). According to the American Academy of Pediatrics (APP, 2015), oral rehydration therapy such as giving ORS is as effective as giving intravenous fluids in diarrheal children with moderate dehydration. Another advantage of oral rehydration therapy is the time required to provide oral rehydration therapy is faster when compared to having to install an infusion first in the Hospital Emergency Unit (ER).

Based on a preliminary study conducted by the author in VIII Environment, Sumber Mulyo Rejo Village, East Binjai District, North Sumatra, through observation and unstructured interviews with four parents whose children suffer from diarrhea. All of them are very concerned about their children's health, especially when they are sick. This incident is by previous researchers' research results, including the research results (Farida 2016). There is a significant relationship between knowledge, attitudes, and family behavior in the management of diarrhea sufferers.

From the results of the preliminary study, it can be seen that one of the efforts of parents in overcoming dehydration in their children who suffer from diarrhea is to provide fluids, but with the amount, frequency, and type of fluids that are not by the fluids needed by the body. Parents only give fluids when the child asks for and complains of feeling thirsty. This is what attracted the authors' attention to research parents' behavior in handling oral hydration with the incidence of dehydration in children with diarrhea. From this phenomenon, researchers assess the importance of conducting research that focuses on "The Relationship of Parental Behavior in Handling Oralhydration with Dehydration Incidents in Toddlers with Diarrhea in Environment VIII, Sumber Mulyo Rejo Village, East Binjai District, North Sumatra in 2021."

2. Method

This research is a type of correlation research with a cross-sectional approach. It aims to determine the relationship between parents' behavior in handling oral hydration and the incidence of dehydration in children under five with diarrhea in the VIII environment of Sumber Mulyo Rejo Village, East Binjai District, North Sumatra in 2021. The sample in this study is This research is a total sampling of 42 people,

The criteria for selecting the sample are:

1. Inclusion Criteria
   a. Willing to be a respondent
   b. Domiciled at the research site
   c. Be in the place when the research is carried out
2. Exclusion Criteria
   a. Not present at the time of the study.
   b. Not a local

The measurement aspects in this study are based on respondents' responses to statements that have been provided and adjusted to existing scores:

1. Number, is a symbol in the form of 1,2,3, and so on, which has no meaning unless given importance. If the number has been associated with a quantitative sense, then the number turns into a number (number).
2. Determination is mapping (Mapping).
3. Rules are guidelines or orders to carry out something

There are 20 questions in the behavioral questionnaire grouped in this study. The research criteria are in the form of agreeing and disagreeing choices. First, determine that these questions will be used as a guide to measuring all the answers in the collected questionnaires. Agree is given a

Contents lists available at IOCScience

Science Midwifery

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score of 1, and if disagree is given a score of 0 for each answer and statement using the following scale:

a. The highest score is 20
b. The lowest score is 0

Based on the number of scores obtained, the behavior of parents is categorized into 2 categories, namely;

1. Behave positively; if the score obtained is greater than 50% - 100%, then the result is 11-20.
2. Behaving negatively, if the score obtained is 0-50%, then the result is 0-10.

The questionnaire for measuring the incidence of dehydration includes an observation sheet to observe the physical changes that occur in children with diarrhea, and a list is given in the statement column. The research standard adopts the selected observation/observation of the child's condition. It will be used to measure the collected A guide to all answers to the questionnaire. A score is given to each statement, using the following assessments to give each word a response ranging from 0 to 2 points:

a. The highest score is 12
b. The lowest score is 0
c. Based on the number of scores obtained, the incidence of dehydration in children is divided into 3 categories, namely:

Severe, if the score is > 75%, the result is 7. If the score is 41-75%, the result is 4 – 6. Mild, if the score is 40, then the result is 0 – 3

3. Result and Discussions

Sumber Mulyorejo is a kelurahan within the East Binjai sub-district, Binjai Municipality, North Sumatra, Indonesia, with 10 hamlets. This village is located along with the doctor. Suppose you start from the kilometer from the direction of Medan City, alternative roads such as Wahidin, Stabat, etc. 19Medan-Binjai Road. The distance from the kelurahan to the center of the East Binjai sub-district is about 5.2 km, while the distance to the city center of Binjai is approximately 5.9 km.

Respondent's Age	Amount	%
20 – 30 years	5 Respondents	11, 90 %
30 – 40 years	12 Respondents	28,57 %
30 – 34 years	13 Respondents	30,95 %
>34 years	12 Respondents	28,57 %
Total	42 Respondents	100 %

Based on table 4.2.1 the number of respondents based on the age of the majority with the age of 30-34 years as many as 13 people (30.95%) and the minority with the age of 20-30 years as many as 5 people (11,90%).

Table 4.2.2. Characteristics of Respondents Based on Religion in Environment VIII SumberMulyo Rejo Village, Binjai Timur District, North Sumatra in 2021 (n = 42)

Religion	Amount	%
Moslem	22	52,38 %
Christian	20	47, 61 %
Buddha	0	0
Hindu	0	0
Total	42 Respondents	100 %

Contents lists available at IOCScience

Science Midwifery

journal homepage: www.midwifery.iocspublisher.org

Based on table 4.2.2 the number of respondents based on the majority religion with Islam as many as 22 people (52.38%) and the minority with Christianity as many as 20 people (47, 61%).

Table 4.2.3 Characteristics of Respondents by Ethnicity in Neighborhood VIII Sumber Mulyo Rejo Sub-district, East Binjai District, North Sumatra in 2021 (n = 42)

Tribes	Amount	%
Batakness	17 Respondents	40, 47 %
Minangkabaunese	4 Respondents	9, 52 %
Javanese	15 Respondents	35,71 %
Malay	6 Respondents	14,29n %
Total	42 Respondents	100 %

Based on table 4.2.3 the number of respondents based on the majority ethnic group with the Batak ethnic group as many as 17 people (40.47%) and the minority with the Minang ethnic group as many as 4 people (9.52%)

Table 4.2.4 Characteristics of Respondents Based on Occupations in Environment VIII Sumber Mulyo Rejo Sub-district, East Binjai District, North Sumatra in 2021 (n = 42)

Job	Amount	%
Unemployed	10	23,81 %
Private employees	13	30,95 %
Businessman	15	35,71 %
Civil Servant	4	9,52 %
Total	42 Respondents	100 %

Based on table 4.2.4 the number of respondents based on occupation, most respondents work as entrepreneurs as many as 15 people (35.71%). The minority works as civil servants as many as 4 people (9, 52%).

Table 4.2.5 Characteristics of Respondents Based on Education in Environment VIII, Sumber Mulyo Rejo Village, East Binjai District, North Sumatra in 2021 (n = 42)

Education Level	Amount	%
Primary School	6	14,29%
Junior High School	14	33,33 %
Senior High School	19	45,24 %
University	3	7,14 %
Total	42 Respondents	100 %

Based on table 4.2.5 the number of respondents based on education, the majority with high school education/equivalent as many as 19 people (45.24%) and the minority with education in college as many as 3 people (7, 14%).

Table 4.2.6. Characteristics of Respondents Based on Income in Neighborhood VIII Sumber Mulyo Rejo Village, East Binjai District, North Sumatra in 2021 (n = 42)

Contents lists available at IOCScience

Science Midwifery

journal homepage: www.midwifery.iocspublisher.org

Revenue (Rp)	Amount	%
< 850.000	1	2,38 %
850.000 – 1000.000	5	11,91 %
1000.000 – 1500.000	17	40,48 %
>1500.000	19	45,23 %
Total	42 Respondents	100 %

Based on table 4.2.6 the number of respondents based on the income of the majority with income> 1500,000 as many as 19 people (45.23%) and the minority with income <850,000 as many as 1 person (2,38%).

Table 4.3.1 Distribution of Parental Behavior Frequency in Giving Oral Hydration in Environment VIII Sumber Mulyo Rejo Village, East Binjai District, North Sumatra in 2021 (n = 42)

No	Parental Behavior	Frequency	Percentage
1	Positive	26	61,9 %
2	Negative	16	38,1 %
	Total	42	100 %

Based on Table 4.3.1 the frequency distribution of parental behavior in giving oral hydration, the majority of respondents with positive (good) behavior were 26 people (61.9%), and the minority with negative behavior (less) were 16 people (38.1%).

Table 4.3.2 Frequency Distribution of Dehydration Events in Environment VIII Sumber Mulyo Rejo Village, Binjai Timur District, North Sumatra in 2021 (n = 42)

No	Dehydration	Frequency	Percentage
1	Mild	7	16,7 %
2	Medium	29	69,0 %
3	Weight	6	14,3 %
	Total	42	100 %

Based on Table 4.3.2 the frequency distribution of dehydration, the majority of respondents with moderate dehydration were 29 people (69.0%), and the minority with severe dehydration were 6 people (14.3%).

Table 4.4 Relationship of Parental Behavior in Handling Oral Hydration with Dehydration Incidence in Toddler Children with Diarrhea in Environment VIII SumberMulyo Rejo Village, East Binjai District, North Sumatra in 2021 (n = 42)

Parental Behavior Oral Hydration	Dehydration						Amount		*P value*	*df*
	Mild		Medium		Weight		N	%		
	n	%	n	%	n	%				
Positive	3	12,0	22	88,0	0	0	25	100	0,002	2
Negative	4	23,5	7	41,2	6	35,3	17	100		
Total	7	16,7	29	69,0	6	14,3	42	100		

Contents lists available at IOCScience

Science Midwifery

journal homepage: www.midwifery.iocspublisher.org

Based on the results of the chi-square test (X^2), it is known that most of the respondents have positive (good) oral hydration behavior with moderate dehydration status. The results showed that the value of df = 2 and P-value = 0.002 was smaller than 0.05 (0.002 <0.05), so the hypothesis was accepted, so it can be concluded that there is a significant relationship between the behavior of parents in handling oral hydration with the incidence of dehydration in children under five with diarrhea in Environment VIII, Sumber Mulyo Rejo Village, East Binjai District, North Sumatra in 2021.

Based on the chi-square test results (X^2), it is known that most of the respondents have positive (good) oral hydration behavior with moderate dehydration status. The results showed that the value of df = 2 and P-value = 0.002 was smaller than 0.05 (0.002 <0.05), so the hypothesis was accepted. It can be concluded that there is a significant relationship between parents' behavior in handling oral hydration with the incidence of dehydration in children under five with diarrhea in Environment VIII, Sumber Mulyo Rejo Village, East Binjai District, North Sumatra in 2021.

4. Discussion

The relationship between parental behavior in handling oral hydration and the incidence of dehydration in children with diarrhea in Environment VIII, Sumber Mulyo Rejo Village, Binjai Timur District, North Sumatra

In giving oral hydration to children with diarrhea, paying attention to parents' behavior is necessary. Based on the results of the cross-tabulation obtained, it is known that some respondents have poor behavior in handling oral hydration of children with diarrhea. This is in line with the theory that the less verbal hydration behavior of parents, the more severe the dehydration level of children with diarrhea. Therefore, parents' behavior plays a significant role because parents' behavior, especially mothers, has a strategic role in reducing morbidity and mortality due to diarrhea (Farida, 2016).

From the results in table 4.4, the above picture shows that respondents with positive (good) oral hydration behavior with moderate dehydration status of children with diarrhea that is equal to 88.0%, and children with mild dehydration diarrhea of 12.0%, respondents with negative oral hydration behavior (less) with dehydration status of children with diarrhea mild diarrhea is 23.5% and children with moderate dehydration are 41.2%. The dehydration status of children with severe diarrhea is 35.3%. Giving oral hydration to children with diarrhea depends on the age and degree of dehydration suffered. This greatly determines the need for rehydration fluids, following the guidelines for treating children with diarrhea in MTBM and IMCI delivered by Zareen (2015).

The results of the questionnaire obtained show that the difference between parents' lack of oral hydration behavior and children with diarrhea who are dehydrated is because parents cannot calculate the fluid needs needed by their children when they have diarrhea. So that oral hydration becomes less and ineffective to improve the degree of dehydration. The behavior of the parents influences the dehydration status of the child. Parents' behavior is also influenced by the environment, food, drinks, and health services (Notoatmojo, 2017). In Neighborhood VIII, Sumber Mulyo Rejo Village, Binjai Timur District, North Sumatra, parents with children with diarrhea for more than 3 days generally continue their treatment to health services (clinics and puskesmas).

It shows that parents' behavior in terms of utilization of health services is good. So that rehydration efforts can be followed up appropriately. The results of this study are in line with the results of research conducted by Sukawana (2015) that the results of his research prove a significant relationship between knowledge, attitudes, and behavior of families in managing diarrhea sufferers at home to the level of dehydration of patients. So from the research data, it can be seen that there is a significant relationship between the behavior of parents in handling oral hydration with the incidence of dehydration in children with diarrhea.

5. Conclusion

Based on the results of the analysis and discussion that have been described previously, The researcher can draw the following conclusions:

Contents lists available at IOCScience

Science Midwifery

journal homepage: www.midwifery.iocspublisher.org

1. There is a significant relationship between parents' behavior in handling oral hydration with the incidence of dehydration in children with diarrhea in Environment VIII, Sumber Mulyo Rejo Village, East Binjai District, North Sumatra, with a P-value of 0.002 0.05.
2. Parents' behavior in handling oral hydration with the incidence of dehydration in children with diarrhea in Environment VIII, Sumber Mulyo Rejo Village, Binjai Timur District, North Sumatra, partially with negative behavior (less) as much as 23.5%.
3. The incidence of dehydration in children with diarrhea in Neighborhood VIII Sumber Mulyo Rejo Village, Binjai Timur District, North Sumatra Environment VIII Sumber Mulyo Rejo Village, East Binjai District, North Sumatra mostly showed diarrhea children with moderate dehydration which was 88.0%.

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