MOTHER'S BEHAVIOR IN FEEDING TO TODDLERS WHO HAVE EXPERIENCED DIARRHEA IN TAMAN SIDOARJO HEALTH CENTER

Anita Dwi Yuliani^{1(CA)}, Kiaonarni Ongko W², Enung Mardiyana H³, Jujuk Proboningsih⁴

^{1,2,3,4}Soetomo Nursing DIII Study Program, Department of Nursing, Health Polytechnic Ministry of Health Surabaya Anitadwiyuliani@gmail.com

Abstract. Diarrheal disease is a major cause of death and morbidity in children under 5 years of age in developing countries. One of the factors contributing to the high incidence of diarrhea is not optimal knowledge about diarrhea, so that many cases of diarrhea that occur are actually caused by inadequate knowledge of parents (mothers) of toddlers. The purpose of this study was to identify the behavior of mothers in feeding toddlers who had experienced diarrhea. The technique used to take samples is purposive sampling. Data collection used a questionnaire and then analyzed using frequency distribution and percentage. The results of this study indicate that the behavior of mothers in providing food based on how to prepare food ingredients for their toddlers who have experienced diarrhea is mostly well behaved, based on how to process food ingredients for their toddlers who have experienced diarrhea, less than half behaves poorly, based on how to serve food for their toddlers who have experienced diarrhea. experiencing diarrhea mostly behave moderately. It is hoped that mothers will seek information about proper and proper feeding, starting from preparing food ingredients, processing food ingredients, to serving food so as to prevent diarrhea from poor food sanitation.

Keywords: Mother's Behavior, Feeding, Toddlers, Diarrhea.

1 INTRODUCTION

Diarrhoeal disease is the leading cause of death and morbidity in children under 5 years of age in developing countries. One of the factors that contribute to the high incidence of diarrhea is not optimal knowledge about diarrhea, so many cases of diarrhea that occur are actually caused by inadequate knowledge of parents (mothers) of toddlers. Maternal knowledge about diarrhea including understanding, causes, clinical symptoms, prevention, and proper handling of diarrheal diseases in toddlers plays an important role in reducing mortality and preventing diarrhea and malnutrition in children (Rohmah and Syahrul, 2017).

In Indonesia, diarrhea is a public health problem with a high prevalence. Based on data from the Indonesian Ministry of Health in the 2022 Indonesian Health Profile, the prevalence of diarrhea in 2020 was 41,4% of cases in toddlers. The prevalence decreased in 2021 to 39.4% or 3,690,984 cases in toddlers (Ministry of Health, 2022). Based on the Profile of the East Java Provincial Health Office in 2021 from 2020 to 2021, the prevalence of diarrhea sufferers in toddlers tends to decrease. Diarrhea in 2020 was 44.82% of cases in toddlers and in 2021 it was 42.06% or 470,967 cases in toddlers. (East Java Health Office, 2021). Based on the Profile Data of the Sidoarjo

Regency Health Office in 2021, the number of patients with Toddler Diarrhea as many as 38,724 cases with an incidence rate at the Taman Health Center of 2,607 people (Dinkes Kab. Sidoarjo, 2022)

Globally there is an increase in cases of diarrhea that causes death in toddlers. WHO data (2017) states that there are around 1.7 billion cases of diarrhea in toddlers and cause death as many as 525,000 toddlers every year. The leading cause of death in the group of children under five is diarrhea by 10.3% (Ministry of Health, 2022). According to Sodikin, (2011) if management in dealing with diarrhea is bad and not done immediately, there will be the possibility of complications, namely: a. Dehydration b. Hypovolemic shock c. Seizures d. Bacteremia e. Malnutrition f. Hypoglycemia g. Secondary intolerance due to damage to the intestinal mucosa. According to (Rohmah and Syahrul, 2017; Merga & Alemayehu, 2015) the occurrence of diarrheal diseases can be influenced by several factors, including host factors, agent factors, and environmental factors. Host factors that can influence the occurrence of diarrhea include poor hygiene behavior such as washing hands without soap and in running water, not washing milk bottles, wrong food storage. Supported by the results of the study, 45 out of 58 mothers did not wash their hands using soap (77.59%).

Environmental factors that can cause diarrhea are poor environmental sanitation conditions. Supported by the results of research as many as 42 out of 58 houses condition healthy latrines (72.41%). Meanwhile, agent factors that can cause diarrhea include infectious factors, malabsorption factors, and food factors. Based on the results of the study (Novita, A et al, 2021), most respondents who had good food sanitation did not experience diarrhea, namely 245 people (58.8%), most respondents who had poor food sanitation and experienced diarrhea, namely 316 respondents (71%). Food sanitation is an effort to maintain food safety in order to break the chain of breeding microorganisms that cause disease, especially foodborne diseases. Food security efforts must be carried out on food starting from the process of sorting raw materials to serving finished food. In maintaining food safety, it is necessary to make food sanitation efforts. These efforts include the process of sorting raw materials, storing raw materials, processing (cooking process), storage of finished food to serving food for consumption. Good food sanitation is being able to do food processing well such as washing first before cutting, storing food well, using clean cutlery washed with soap and running water. Poor food sanitation is caused by lack of awareness from parents to maintain the cleanliness of family food, such as washing unclean eating utensils, how to serve and store food on the table in an open state without closing, this causes food contaminated by bacteria, which is then consumed by the family, ultimately causing symptoms of diarrhea, especially in toddlers.

Infectious factors occur in many toddlers, including infection with E. coli, Salmonella typhi, Vibrio cholera, and other microorganism attacks in large and pathogenic quantities. This microorganism takes advantage of the opportunity when the toddler's body condition is weak so it is very easy to get disease. Environmental factors consist of the use of clean water and the use of healthy latrines. The age of the mother is part of the determinant of maternal behavior, but as the main determinant of good or bad maternal behavior in acting to prevent the incidence of diarrhea in toddlers. The level of education can affect employment status, but it does not mean that a higher education guarantees a person to get a decent job. The mother's education level is one of the factors that influence the pain of toddlers. The higher the mother's level of education, the better the level of health the child gets. In mothers who have toddlers with diarrhea, usually less quickly in acting to deal with the child's disease. This is due to the busyness of the mother's work so that the child's illness is not handled immediately. The level of education can also influence the behavior of mothers, both in terms of knowledge, attitudes, and actions. Maternal behavior can affect the length of exclusive breastfeeding, immunization, and nutritional status of the child. The age group that is very susceptible to diarrhea is toddlers aged 6 months – 2 years and are not differentiated according to gender (Rohmah and Syahrul, 2017; Safitri, 2023).

According to (Utami and Luthfiana, 2018), there are 5 principles of handling diarrhea. The first principle is to give ORS. ORS is useful for replacing body fluids and electrolytes lost due to diarrhea. How to give it is to put one packet of ORS into one glass of boiled water (200cc). Children with the age of less than one year are given 50-100cc of ORS liquid after each bowel movement and children with the age of more than one year are given 100-200cc of ORS liquid after each bowel movement. The second principle is to give zinc for 10 consecutive days. Giving zinc can accelerate the healing of diarrhea by boosting the immune system in children. Zinc is given once a day for 10 consecutive days with a dose for toddlers aged <6 months which is 1/2 tablet (10mg) per day and for toddlers ≥ 6 months given a dose of 1 tablet (20mg) per day.

The third principle is to continue breastfeeding and feeding. Give breast milk if the child is still getting breast milk and as much as the child wants, and give food with more frequency until the child stops diarrhea. The fourth principle is to give antibiotics selectively. Antibiotics should only be prescribed by a doctor. The fifth principle is to give advice to mothers or caregivers. Give advice on how to give ORS, zinc, breast milk, and food that is processed cleanly. Food that is not processed cleanly can cause diarrhea in toddlers. Provide information about signs to immediately take the child to a health worker if excessive liquid bowel movements are found, eating or drinking little, fever, bloody stools, and do not improve within 3 days.

2 METHOD

This research method uses a quantitative method with a descriptive research approach which aims to describe the facts that are investigated systematically and factually by collecting data, processing, analyzing and interpreting the data (Sugiyono, 2018; Irin & Angela, 2022). The sample criteria used in this study were mothers who had children who had experienced diarrhea a maximum of 3 months ago, 86 cases of children aged 1-5 years were obtained at the Taman Sidoarjo Community Health Center. The sampling technique in this research used a purposive sampling technique (Notoatmodjo, 2018).

The variables in this study include the independent variable in this study, namely the incidence of diarrhea experienced by toddlers and the dependent variable in this study is the mother's behavior in providing food. This research was conducted at the Taman Sidoarjo Community Health Center and this research was conducted from February to August 2023. This research instrument used a questionnaire with a Likert scale containing 5 questionnaires "Always", "Often", "Sometimes", "Rarely" and "Never ever" which will be checked (\checkmark). The sampling process was carried out by means of interviews and questionnaires. Then, the sampling results are collected and tabulated and then compare the data with previous research or existing theories.

3 RESULTS AND DISCUSSION

No	Characteristic	Category	Frequency	Perpercentage (%)
1.	Age (year)	20-35	69	80
	0 /	>35	17	20
	Sum		86	100
2.	Education	Junior High School	2	2
		Senior High School	73	85
		College	11	13
	Sum		86	100
3.	Work	Private Employees	5	6
		Entrepreneurial	6	7
		Not Working	75	87
	Sum		86	100
4.	Income	No income	75	87
		< UMR	7	8
		> UMR	4	5
	Sum		86	100
5.	Join Posyandu Program	Yes	86	100
	Sum		86	100

Table 1. Distribution of characteristics of mothers who have toddlers who have experienced diarrhea at the TamanSidoarjo Health Center in August 2023.

Based on table 1 that the results showed that most (80%) mothers aged 20-35 years, most (85%) mothers have high school education, most (87%) mothers do not work, and all mothers (100%) attend the posyandu program at home for their toddlers.

No	Characteristic	Category	Frequency	Percentage (%)
1.	Age (year)	1-5	86	100
	Sum		86	100
	Child to-	1	76	88
2.		2	9	10
		3	1	2
	Sum		86	100
,	Gestation –	<38 weeks	5	6
3.		38-42 weeks	81	94
	Sum		86	100
	Last — experienced — diarrhea —	<1 month	19	22
		1 month	41	48
		2 months	20	23
		3 months	6	7
	Sum		86	100

 Table 2.
 Distribution of characteristics of toddlers who have experienced diarrhea at the Taman Sidoarjo Health Center in August 2023.

Based on table 2 that the results showed that most (88%) first children, most (94%) children were born at normal gestational age, and less than half (48%) of the last toddlers had diarrhea 1 month ago.

 Table 3. Distribution of maternal behavior in preparing foodstuffs for toddlers who have experienced diarrhea at the Taman Sidoarjo Health Center in August 2023.

No	Behaviour	Frequency	Percentage (%)
1	Good	63	73
2	Keep	23	27
3	Less	0	0
	Sum	86	100

Based on table 3 that the results showed that most (73%) of mothers' behavior in preparing food for their toddlers was good, a small part (27%) of mothers' behavior in preparing food for their toddlers was moderate.

 Table 4. Distribution of maternal behavior in processing foodstuffs in toddlers who have experienced diarrhea at the Taman Sidoarjo Health Center in August 2023.

No	Behaviour	Frequency	Percentage (%)
1	Good	15	17
2	Keep	34	40
3	Less	37	43
	Sum	86	100

Based on table 4 that the results showed that less than half (43%) of mothers' behavior in processing food for their toddlers was less, less than half (40%) of mothers' behavior in processing foodstuffs for toddlers was moderate, and a small part (17%) of mothers' behavior in processing food ingredients for toddlers was good.

Table 5. Distribution of maternal behavior in serving food to toddlers who have experienced diarrhea at the TamanSidoarjo Health Center in August 2023.

No	Behaviour	Frequency	Percentage (%)
1	Good	27	31
2	Keep	59	69
3	Less	0	0
	Sum	86	100

Based on table 5 that the results showed that more than half (69%) of mothers' behavior in serving food to their toddlers was moderate, a small part (31%) of mothers' behavior in preparing food ingredients to their toddlers was good.

Mother's behavior in preparing food ingredients for toddlers who have experienced diarrhea at the Taman Sidoarjo Health Center

Based on the measurement results, it shows that most of the mother's behavior in preparing food for her toddler is good and a small part is in the medium category. Mothers' behavior tends to be good because they are accustomed to choosing fresh food ingredients including vegetables and fruit, 65 out of 86 mothers never buy fruit that is not fresh but the price is cheaper for fear of endangering the health of their toddlers. In addition, mothers also always pay attention to the condition of the packaging and information on the label including the expiration date on the packaging product. Most mothers who prepare ingredients for their toddler's food always wash fruits and vegetables using running water without using soap because they avoid the soap content that is still attached to fruits and vegetables. According to Suratmoko, et al (2014) Safe and quality food is very important in supporting the needs of daily life. By knowing how to choose and shop for safe food, then keep it safe, food safety will always be maintained, so that the risk of disease due to consuming unsafe food can be avoided.

The results of this study are in line with research conducted by Dewi, et al (2020) Most (75%) respondents are highly knowledgeable in the selection and preparation of food ingredients and a small percentage (25%) of respondents are low knowledgeable in the selection and preparation of food ingredients. Researchers present related material, how to choose food ingredients so that the sensory properties of food, nutritional value and food safety can be considered. Among others, in choosing fresh fish, fresh meat, characteristics of quality tempeh, vegetables that are good for consumption. Furthermore, the way to store foodstuffs in addition to must be clean and the storage area is made of safe materials.

Mothers who have toddlers do how to select and prepare good foodstuffs, but there are still a small number of mothers who do not understand this, for that mothers need to find information about how to choose and prepare good food ingredients through health workers, print and electronic media. Puskesmas can also provide health education in the form of counseling that contains explanations on how to choose and prepare good food to be given to their toddlers. The purpose of the effort is for mothers to know how to feed based on how to prepare food ingredients for toddlers.

Mother's behavior in processing food in toddlers who have experienced diarrhea at the Taman Sidoarjo Health Center

Based on the results of the study showed that less than half of the mother's behavior in processing food ingredients for her toddler was less, less than half in the medium category, and a small part in the good category. Most mothers cook their own food for their toddlers by always washing their hands before processing, but some mothers are still not right in how to process it. One of them is how to boil, some mothers exceed 5 minutes so that the food becomes overcooked and the vitamin content in food becomes reduced. In addition, 47 out of 86 mothers sometimes or even never process by teaming which should be a highly recommended way to prevent diarrhea because the teaming method keeps the vitamin content of one of them fiber maintained.

According to Novita, et al (2021) Good food processing must apply hygiene principles such as washing first before cutting, using clean cutlery washed with soap and running water. Bad hygiene principles are caused by lack of awareness from parents to maintain the cleanliness of family food. Poor food processing can risk causing disease due to consuming unsafe food. In addition, the selection of food processing methods for toddlers is also part of good food processing. Food ingredients that are processed using the wrong method can cause a lack of vitamins and fiber content available.

The results of this study are in line with research conducted by Rohmah, et al (2017) on mothers who wash their hands using soap, most (75.56%) have children under five who are not affected by diarrhea. While in mothers who have the habit of washing hands without using soap, most (69.23%) of their toddlers get diarrhea. Handwashing is one of the non-health behaviors that greatly affects the health status of a toddler because about 19% of under-five deaths in Indonesia are caused by diseases related to diarrhea. Hand washing is proven to inhibit the occurrence of disease.

Mothers who have toddlers need to find information about methods of processing good food so that the content of vitamins and fiber is still maintained and distributed to the toddler's body. This information can be obtained from health workers, print and electronic media. Puskesmas can also provide health education in the form of counseling. The counseling can contain an explanation of the method of processing food ingredients that are good and correct. The purpose of these efforts is for mothers to know how to feed based on how to process food ingredients for toddlers.

Mother's behavior in serving food to toddlers who have experienced diarrhea at Taman Sidoarjo Health Center

Based on the results of the study showed that more than half of the mother's behavior in serving food to her toddler in the medium category, a small part of the mother's behavior in serving food to her toddler in the good category. Most mothers cook only for one meal to keep food clean. Mothers also always let food warm before giving it to toddlers, but 58 out of 86 mothers put the food in an open bowl or plate so that germs and bacteria from outside enter the food before being consumed by toddlers.

According to Novita, et al (2021) serving food is part of food sanitation. Food sanitation can be said to be good if it can carry out good food preparation, processing and presentation. Storing food on the table in an open state without being closed causes food contaminated by bacteria, which are then consumed by the family, ultimately causing symptoms of diarrhea, especially in toddlers.

The results of this study are in line with research conducted by Novita, et al (2021), most respondents who have good food sanitation do not experience diarrhea, namely 245 people (58.8%), most respondents who have poor food sanitation and experience diarrhea, which is 316 respondents (71%). Food security efforts must be carried out on food starting from the process of sorting raw materials to serving finished food. In maintaining food safety, it is necessary to make food sanitation efforts. These efforts include the process of sorting raw materials, storing raw materials, processing (cooking process), storage of finished food to serving food for consumption. Also, causes a small risk of diarrhea.

Based on the description above, researchers assess that mothers who have toddlers need to find information about how to serve good food starting from how to serve to store food to maintain food hygiene. Puskesmas can also provide health education in the form of counseling that contains explanations on how to serve and store good food to be given to their toddlers. The purpose of the effort is for mothers to know how to feed based on how to serve food for toddlers.

4 CONCLUSION

From the results of the research that has been done, it can be concluded that the behavior of mothers in feeding based on how to prepare food ingredients for their toddlers who have experienced diarrhea in the working area of the Taman Sidoarjo Health Center is mostly well-behaved. The behavior of mothers in feeding based on how to process food ingredients for their toddlers who have experienced diarrhea in the work area of the Taman Sidoarjo Health Center is less than half behaving less. The behavior of mothers in feeding based on how to serve food to their toddlers who have experienced diarrhea in the working area of the Taman Sidoarjo Health Center mostly behaves moderately.

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