DOI: 10.30994/sjik.v9i2.392

ISSN: 2252-3847 (print); 2614-350X (online)

Vol.9 No.2 November 2020 Page.998-1005

# Relationship between Mothers' Attitudes with Diarrhea **Prevention in Toddlers**

## Indah Dewi Ridawati<sup>1\*</sup>, Bintoro Nugroho<sup>2</sup>

<sup>1</sup>Health Polytechnic of Palembang, Lubuklinggau, Indonesia <sup>2</sup>Musi Rawas District Social Service, South Sumatra, Indonesia \* indahdewiridawati@gmail.com

#### **ABSTRACT**

Diarrhea is a condition that is not normal feces expenditure or unusual, characterized by an increase in volume, thinned, and the frequency is more than three times a day. The prevalence of diarrhea diseases is increasing, the total cases of diarrhea diseases listed in the Work Area Air Lais sub-district Community Health centers Padang Jaya in 2014 reached 230 cases. This happens because the prevention of diarrhea diseases has not been done optimally by Padang Jaya sub-district community. The purpose of this research is to determine the relationship between mothers' attitudes with prevention of diarrhea disease in toddlers. This research is a quantitative research with cross sectional design. The sample in this study were mothers with children under five by purposive sampling technique. The participants of this research was 95 mothers and statistical analysis using chi square. Results of the analysis found correlation between maternal attitudes with efforts to prevent diarrhea disease in toddlers ( $\rho$  value = 0.000). Expected health workers can improve the promotion for better health and increasing efforts to prevent diarrhea diseases that can be carried by mothers as a prevention of diarrhea disease in Toddlers.

Keywords: Attitudes, Mother, Prevention Of Diarrhea Disease, Toddler

Received August 7, 2020; Revised August 30, 2020; Accepted September 22, 2020



STRADA Jurnal Ilmiah Kesehatan, its website, and the articles published there in are licensed under a Creative Commons Attribution-ShareAlike

Website: https://sjik.org/index.php/sjik | Email: publikasistrada@gmail.com

DOI: 10.30994/sjik.v9i2.392

ISSN: 2252-3847 (print); 2614-350X (online) Vol.9 No.2 November 2020 Page.998-1005

## **BACKGROUND**

According to data from the World Health Organization (WHO), diarrhea is the number one cause of child mortality worldwide. The incidence of diarrhea in children is estimated at 2.5 billion per year and more than half of them are in Africa and South Asia and the consequences of this disease are more severe and deadly. This disease causes the death of 1.6 million in the world each year (Hannif, et al; 2011). In Indonesia, diarrhea is the number two killer of children under five after Acute Respiratory Tract Infection (Surkesnas, 2001).

Diarrheal disease in Indonesia is one of the main public health problems. this is due to the high rate of diarrhea morbidity that causes many deaths, especially in children under five. Diarrhea morbidity rate in Indonesia tends to increase from year to year. Diarrhea morbidity rate in 2006 was 423 per 1000 population, with 10,980 cases and 277 deaths (CFR, 2.52%). In Indonesia, it is reported that there are 1.6 to 2 incidents of diarrhea per year in children under five, so that the overall estimated incidence of diarrhea in children under five is around 40 million a year with 200,000-400,000 deaths. In the 2000 survey conducted by the Directorate General of P2MPL MOH in 10 provinces, it was found that from 18,000 households surveyed, a sample of 13,440 were taken, and the incidence of diarrhea in children under five was 1.3 episodes of diarrhea per year (Soebagyo, 2008). Based on data from the Bengkulu Provincial Health Office in 2011 the incidence of diarrhea in Bengkulu Province was 16,634, in 2012 there were 18,660 people. Of the 9 districts and 1 municipality in Bengkulu Province in 2012, North Bengkulu Regency was one of the largest contributors to diarrhea cases, namely 5,085 cases (43.7%). Furthermore, according to the profile of the North Bengkulu Regency Health Office, in 2011 the incidence of diarrhea in children under five was 2,021 cases, while in 2012 the incidence of diarrhea in children under five was 5,085 cases. In 2014, the incidence of diarrhea in Bengkulu Utara Regency was ranked 6th out of 10 diseases with the largest incidence. Of the 47,077 cases in the top 10 diseases, the incidence of diarrhea was found to be 4,118 incidents. And according to the Air Lais Health Center Profile, in 2014, the incidence of diarrhea at Air Lais Health Center was ranked 9th out of the 10 most diseases. There were 230 cases of diarrhea.

Many factors are thought to cause diarrhea in infants and toddlers in Indonesia. One of the risk factors that are often studied is direct factors which include the level of knowledge, hand washing behavior, hygiene sanitation, latrines, sewerage (SPAL), bacteriological quality of water, and house conditions. Washing hands with soap is the cheapest and most effective health intervention compared to the results of other health interventions in reducing the risk of diarrhea disease transmission, especially in infants and toddlers (Kemenkes RI, 2011).

Knowledge, attitudes and actions of mothers have an important role in determining the health status of their children (Caruso, 2010). Knowledge affects maternal behavior in preventing diarrhea (Megasari, 2014). Maternal attitudes are also significantly associated with the incidence of diarrhea in children under five (Alita, 2015) (Ginting, 2011). Huda M Haroun (2010) states that providing health education through personal communication, home visits, and group discussions increases the knowledge, attitudes and actions of mothers in managing diarrhea for children under 5 years of age with diarrhea.

Badowski (2011) states that the behaviors that allow diarrhea to occur are through fecal contamination from hands and drinking water, including the lack of adequate toilet facilities, drinking water that has been contaminated by hands that contain bacteria,

DOI: 10.30994/sjik.v9i2.392

ISSN: 2252-3847 (print); 2614-350X (online)

Vol.9 No.2 November 2020 Page.998-1005

uncovered water storage places, insufficient drinking water. cooked and less filtered, cloudy water, contaminated mother's hands and objects from bacteria.

Caruso (2010) concluded the results of his bivariate analysis that mothers with a stable economy, higher education level and living in urban areas had better diarrhea prevention efforts than mothers who had a low economy, were uneducated and lived in rural areas. The risk of contamination with diarrhea in toddlers is greatly influenced by prevention efforts from the mother.

Prevention of diarrheal disease is an effort to stop the spread of germs that cause diarrhea. Various efforts that have been shown to be effective include exclusive breastfeeding for infants aged 0-6 months, avoiding the use of bottle milk, improving the way breastfeeding complementary foods are prepared and stored (to reduce breast milk exposure to bacteria and bacterial breeding), using clean water for drinking. The high mortality and diarrhea morbidity is caused by the quality of drinking water sources and how to defecate, washing hands well after defecating and after disposing of baby feces and before preparing food or before eating, disposing of feces (including baby feces) properly (Rudianto, 2010).

## **METHODS**

This research is a quantitative study using analytical research design and cross sectional design (cross sectional) to determine the relationship between maternal attitudes and efforts to prevent diarrhea disease. Data were collected in the Air Lais Health Center, Padang Jaya Bengkulu Utara District from May 2015 to June 2015. The population in this study were all mothers who had children under five in the Air Lais Health Center, Padang Jaya District, North Bengkulu. The sample in this study were 95 mothers who had children under five in the Air Lais Health Center working area, selected purposively. The inclusion criteria used were: (1) Mothers who have children under five; (2) Willing to take part in research; (3) Able to communicate actively.

The research variables consisted of independent variables, namely (1) the attitude of the mother about the definition, epidemiology of the disease, symptoms, modes of transmission of the disease, types and classifications, factors that influence the frequency of diarrhea occurring in children under five, and prevention of diarrhea. The dependent variable is the prevention of diarrhea disease. The data analysis technique used is the chi square method which aims to test whether the variable mother's attitude is related to diarrhea prevention efforts in children under five.

## **RESULTS**

Univariate analysis describes the frequency distribution of the variables studied, both the independent variable and the dependent variable. This analysis presents the characteristics of respondents such as age, education and occupation of mothers.

Table 1. Distribution of Respondents by Age, Education, and Job

	Frequency	%
Age (n=95)		
20-30	49	51,6 %
31-40	46	48,4 %
Education (n=95)		
No school	13	13,7 %

Website: https://sjik.org/index.php/sjik | Email: publikasistrada@gmail.com 1000

DOI: 10.30994/sjik.v9i2.392

ISSN: 2252-3847 (print); 2614-350X (online) Vol.9 No.2 November 2020 Page.998-1005

Elementary school	17	17,9 %
Middle School	34	35,8 %
High school	22	23,2 %
College	9	9,5 %
Job (n=95)		
Farmers	43	45,3 %
Merchant	18	18,9 %
Private	25	26,3 %
Civil servants	9	9,5 %

Based on Table 1, we get a picture of frequency distribution based on age. Respondents with the age group 20-30 years are the most frequent or around 49 respondents (51.6%) and 46 people from the 30-40 year age group (48.4%). Respondents with junior high school education were ranked first with a frequency of 34 people or 35.8%, followed by high school with 23.2%, elementary school with 17.9%, no school with 13.7% and college with 9.5%. Based on Table 1, of the 95 respondents 43 people (45.3%) of them were farmers, followed by the private sector 25 people (26.3%), traders as many as 18 people (18.9%) and civil servants as many as 9 people (9.5%).

Attitudes in this study were measured by 18 question items with the distribution of answers attached. Based on the recapitulation of the respondent's answers to the 18 questions about attitude, the attitude is categorized into 2 categories, namely well if the respondent's score is  $\geq$  median; bad if the respondent's score < median.

Table 2. Overview of Respondent Attitudes

No	Attitudes	f	%
1	Well	64	67,4%
2	Bad	31	32,6%
	Total	95	100%

Source: 2015 Research Results (data processed)

Table 2 shows that of the 95 research respondents, the respondent's attitude towards diarrhea disease. 64 respondents (67.4%) had well attitudes towards diarrhea, and 31 respondents (32.6%) had bad attitudes towards diarrhea.

Diarrhea prevention efforts were measured by 10 question items with the following frequency distribution:

Table 3. Overview of Efforts to Prevent Diarrhea

No	Efforts to Prevent Diarrhea	f	%
1	Well	37	38,9%
2	Enough	50	52,6%
3	Bad	8	8,4%
	Total	95	100%

Source: 2015 Research Results (data processed)

Table 3 shows that of the 95 research respondents, 37 people (38.9%) made good diarrhea prevention efforts, 50 people (52.6%) had enough to prevent diarrhea, and 8 people (8.4%) did not try to prevent diarrhea. Thus, the majority of respondents simply tried to prevent diarrhea, namely 50 people (52.6%).

Bivariate analysis was performed to identify the relationship between the independent variable and the dependent variable (diarrhea prevention efforts). The relationship between

DOI: 10.30994/sjik.v9i2.392

ISSN: 2252-3847 (print); 2614-350X (online) Vol.9 No.2 November 2020 Page.998-1005

knowledge and efforts to prevent diarrhea is done using the chi-square test at a 95% confidence level (p <0.05) which shows the following results:

Table 4. Chi-Square Test Results between Mothers' Attitudes with Diarrhea Prevention Efforts

Attitudes	Γ	Diarrhea Prevention Efforts					Total			
	V	Vell Enough		Bad		-		$X^2$	P Value	
	f	%	f	%	f	%	N	%	_	
Well	19	20,0	30	31,6	0	0	49	51,6	9,942	0,007
Bad	18	17,9	20	21,1	8	8,4	46	48,4	<del>-</del> "	
Total	37	38,9	50	52,6	8	8,4	95	100	_	

Table 4 shows that 49 respondents (51.6%) had a well attitude towards preventing diarrhea disease (51.6%), 19 respondents (20.0%) had well diarrhea prevention efforts, and 30 respondents (31.6%) had adequate efforts to prevent diarrhea disease. There were 18 respondents (17.9%) who had a bad attitude towards the prevention of diarrhea disease, and 20 respondents (21.1%) had well diarrheal disease prevention efforts. enough and 8 respondents (8.4%) had insufficient efforts to prevent diarrhea disease. The results of statistical test analysis of chi square obtained p value = 0.007, and x count = 9.942. Where the p value = 0.007 < 0.05 and x count 9.942> x table which means Ho is rejected. Thus, it can be concluded that there is a significant relationship between maternal attitudes and efforts to prevent diarrhea in toddlers.

#### **DISCUSSION**

Attitude is the readiness to act on objects in a certain environment as an appreciation of the object (Notoatmodjo, 2007). The process of forming attitudes can occur because of stimuli, such as public knowledge about the prevention of diarrhea disease. This stimulation stimulates the mother's self to respond, it can be in the form of well or bad attitude, which will eventually be manifested in behavior or not.Azwar (2013) argues that everyone who has well feelings towards a psychological object is said to like that object or has a well attitude towards that object, while individuals who have bad feelings towards a psychological object are said to have bad attitude towards the object of this attitude. The respondent's attitude in this study is how the respondent behaves towards the prevention of diarrhea disease, either supporting or rejecting.

The results of this research on 95 respondents showed that respondents who had well attitude towards efforts to prevent diarrhea disease were 67.4% and bad attitudes were 32.6%. Well attitudes towards efforts to prevent diarrhea disease tend to accept and know this, while bad attitudes tend to reject efforts to prevent diarrhea disease. Attitude is an internal ability that plays a role in taking action, especially if the attitude is open, it is likely that it can be reflected in the actions shown.

Azwar (2013) explains the factors that influence attitudes, namely personal experience, the influence of other people who are considered important, the influence of culture, mass media, educational institutions and religious institutions and the influence of emotional factors. This is consistent with research where the attitudes of the women in Padang Jaya District are influenced by several factors, such as personal experience, the influence of others, culture owned by the community and community education. This is in line with Malikhah's research (2011), where the attitude of respondents in early prevention and control of the incidence of diarrhea in children under five in Hegarmanah Jatinagor Village was found to have well attitude in preventing and overcoming the incidence of diarrhea early.

DOI: 10.30994/sjik.v9i2.392

ISSN: 2252-3847 (print); 2614-350X (online)

Vol.9 No.2 November 2020 Page.998-1005

Attitudes of mothers in the District of Padang Jaya who have well attitudes towards efforts to prevent diarrhea disease. The attitude of mothers is reflected in their responses that state the need to know about diarrhea disease and its prevention efforts, this illustrates that most respondents are familiar with diarrhea disease and its prevention. The attitude of the mothers of the respondents in the District of Padang Jaya who have bad attitudes can be seen from the sufficient knowledge of mothers about diarrhea disease and its prevention efforts. Mothers do not have a tendency towards diarrhea disease and efforts to prevent it. When related to the theory of Notoatmodjo (2007) which states that attitudes consist of 4 levels, namely accept, respond, respect, takes responsibility. So mothers who have bad attitudes only reach the level of responding. Meanwhile, mothers who have well attitude have reached a level of respect.

Disease prevention is an important component in health care. Preventive care involves health promotion activities including special health education programs, which are designed to help clients reduce the risk of illness, maintain maximum function, and promote good health-related habits (Perry, 2005).

The results of the research on 95 respondents showed that respondents who had well diarrheal disease prevention efforts were 52.6% and those who had adequate diarrheal disease prevention efforts were 52.6%, and as many as 8.4% of respondents had diarrhea disease prevention efforts less. This is due to the knowledge and attitudes of the respondents. The results of the research on knowledge obtained that most of the respondents had sufficient knowledge, while the results of the research on attitudes found that most respondents had well attitude towards efforts to prevent diarrhea disease so that prevention efforts made by the community to prevent diarrhea such as washing hands with soap after and before eating, provide Breastfeeding in toddlers, disposing of feces in its place, maintaining a clean environment is still in the sufficient category. The results of this study are in line with Wulansari (2008), respondents who have bad knowledge, attitudes and actions will have an increased risk of getting diarrhea.

The results obtained from 49 respondents with well attitude, there were 20% had well diarrheal disease prevention efforts and 31.6% had adequate diarrheal disease prevention efforts. There were 46 respondents with bad attitudes, 17.9% had good diarrheal disease prevention efforts and 21.1% had adequate diarrheal disease prevention efforts and 8.4% had less diarrheal disease prevention efforts.

This study is in line with Malikhah's (2011) study which concluded that there was a significant relationship between the respondent's attitude and the early prevention and control of diarrhea in children under five in Hegarmanah Jatinagor Village. The weller the mother's attitude, the more sufficient precautions should be taken. This is influenced by knowledge, economy, socio-cultural education, personal experience, and people who are considered important. Roger (1974) in Notoatmodjo (2007) has the same opinion, namely that attitudes and practices that are not based on strong knowledge will not last long in someone's life, while strong knowledge if not balanced by sustainable attitudes and practices will not have a meaningful meaning to life.

#### **CONCLUSION**

Based on the results of research and discussion conducted regarding the relationship between knowledge and attitudes of mothers with efforts to prevent diarrhea disease in children under five in the Work Area of Air Lais Health Center, Padang Jaya Bengkulu Utara District in 2015, it can be concluded that there is a significant relationship between maternal attitudes and efforts to prevent diarrhea disease in children under five. in the

DOI: 10.30994/sjik.v9i2.392

ISSN: 2252-3847 (print); 2614-350X (online) Vol.9 No.2 November 2020 Page.998-1005

working area of Air Lais Health Center, Padang Jaya District, North Bengkulu. The better the respondent's attitude, the better the efforts to prevent diarrhea, conversely the lower the respondent's attitude, the more likely he is to have less diarrheal disease prevention efforts. Expected health workers can improve the promotion for better health and increasing efforts to prevent diarrhea diseases that can be carried by mothers as a prevention of diarrhea disease in Toddlers.

#### REFERENCES

- Air Lais Health Center. (2014). Health Profile of Air Lais Health Center. Air Lais Health Center. Padang Jaya.
- Alita, Priska., Fahrurazi, & Fakhsiannar. (2015). Relationship Level of Knowledge, Attitudes and Actions of Mother on the Incidence of Diarrhea in Toddlers at the Puskesmas Cempaka Putih Banjarmasin City. Journal of Public Health, Vol. 2, No.1 (14-18) DOI: http://dx.doi.org/10.31602/ann.v2i1.
- Arikunto, S, (2006), Research Procedures for an Approach. Revised edition. PT. Rineka Cipta, Jakarta.
- Astuti, W. P., Herniyatun, & Yudha, H. T., (2011). The Relationship between Mother's Knowledge of Food Sanitation and Diarrhea in Toddlers in Klirong Health Center 1. Scientific Journal of Nursing, volume 7, no. 2, June.
- Azwar, S. (2011). Human Attitudes, Theory and Measurement 2nd Edition. Pustaka Pelajar, Yogyakarta.
- Badowski, N., Castro, C.M., Montgomery, M., Pickering, A.J., Mamuyaa, S., & Davis, J. (2011). Understanding Household Behavior Risk Factors for Diarrheal Dissease in Dar Es Salam: A photovoice Community Assessment. Hindiawi Publishing Corporation. Journal of Environ Public Health.; 2011: 130467. Epub Sep 28. https://doi.org/10.1155/2011/130467.
- Bengkulu Province Health Office. (2008), Bengkulu Health Profile 2008. Bengkulu Provincial Health Office. Bengkulu.
- Budiman, A.R. (2013). Knowledge and Attitudes in Health Research. Salemba Medika. Jakarta.
- Caruso, B., Stephenson, R., & Leon, J.S. (2010). Maternal Behavior and Experience, Care Access, and Agency as Determinants of Child Diarrhea in Bolivia. Rev Panam Salud Publica 28 (6). doi: 10.1590 / s1020-49892010001200004.
- Directorate General of Contagious Disease Control and Settlement Environment Health. (1999), Diarrhea Textbook. MOH RI, Jakarta.
- Ditjen PPM and PLP Dep. Kes RI, (2000). Handbook of P2 Diarrhea Program Implementation. Jakarta.
- Ginting BR, Srimurni. (2011). The Relationship Between Diarrhea Incidence in Toddlers with Mother's Attitudes and Knowledge about Clean and Healthy Behavior in Puskesmas Siantan Hulu Pontianak, West Kalimantan.
- Gul, R., & Amin, R. (2011). Knowledge, Attitude, and Practice of Mothers Regarding Management of Diarrhea in Children of Early Age. Journal of the Dow University of Health Karachi, Vol 5. (3): 129-131.
- Handoko. (2009). Statistics for Health Research. Pustaka Rihana, Yogyakarta.
- Hannif, Mulyani, N.S., Kuscithawati, Suci., (2011). Risk Factors for Acute Diarrhea in Toddlers. Public Medicine News, Vol. 27, No.1, March 2011 (10-17).

DOI: 10.30994/sjik.v9i2.392

ISSN: 2252-3847 (print); 2614-350X (online)

Vol.9 No.2 November 2020 Page.998-1005

- Irawati, E., & Wahyuni. (2011). Description of Family Characteristics About Clean and Healthy Living Behavior (PHBS) in Households in Karangasem Village, Work Area of Puskesmas Tanon II, Sragen. Gaster's Journal, Vol. 8, No. 2, August (741-749).
- Joni, Anggoro. (2012). The relationship between the level of knowledge of attitudes and behaviors about personal hygiene in elementary school students with the incidence of diarrhea in students. Graduate program. UIN Jakarta, Jakarta.
- Kundu, T.R., Prateepchaikul, L., & Sen-Ngam, K. (2010). Relathionship Between Maternal Perceptions and Preventive Behaviors Regarding Acute Diarrhea of Children in Bangladesh. The 2nd International Conference on Humanities and Social Sciences April 10th, Faculty of Liberal Arts, Prince of Songkala University.
- Lestari, D. B., Marsito, & Novyriana. (2010). The Relationship between the Frequency of Visits of the Village Health Polyclinic (PKD) and the Attitudes of the Mother Towards PKD Services in the Working Area of the Puskesmas Buayan 2010. Scientific Journal of Nursing Health, Volume 6, No. 3, October.
- Lina, M. (2011). Description of Mother's Knowledge and Attitudes in Early Prevention and Management of Diarrhea in Toddlers in Hegermana Village, Jatinagor. Thesis of FIK Padjadjaran University. Bandung.
- Megasari, Jayanti., Wardani, R.S., & Indrawati, N.D. (2014). The Relationship between Mother's Knowledge of Diarrhea and Mother's Behavior in Preventing Diarrhea in Toddler Children Ages 1-5 Years in RW V, Kaliprau Village, Ulujami District, Pemalang Regency. Journal of Midwifery, Vol. 3, No.2, 2014 (43-48) DOI: https://doi.org/10.26714/jk.3.2.2014.43-47.
- Ministry of Health. (2011). Diarrhea Situation in Indonesia. http://www.depkes.go.id. Access; April 28, 2015.
- MOH RI. (2003). Guidelines for the Prevention of Diarrhea. Directorate General of PPM, Jakarta.
- North Bengkulu District Health Office. (2014). North Bengkulu Regency Health Profile. North Bengkulu District Health Office.
- Notoatmodjo, S. (2010). Health Research Methodology. Rineka Cipta, Jakarta.
- Novie, E.M, Eka, W. (2008). Relationship between Maternal Behavior Factors and the Incidence of Diarrhea in Toddlers at Batujajar Health Center, West Bandung Regency. Bandung.
- Potter, P.A. & Perry, A.N. (2005). Nursing Fundamentals Textbook: Concepts, Processes, and Practices 4th Edition. EGC. Jakarta.
- Rudianto, S. (2010). The Right Way To Overcome Diarrhea In Children. Popular Science Bhuana PT. Jakarta.
- Sarbini. (2005). Diarrhea.http://www.mer-c.org. Access; April 28, 2015.
- Setiadi. (2007). Nursing Research Concepts and Writing. Graha Ilmu. Yogyakarta.
- Soebagyo. (2008). Acute Diarrhea in Children. Eleven March University Press. Surakarta.
- Sugiono. (2007). Statistics For Research. Bandung.
- WHO. (2010). Diarrhea Situation in the World.http://www.who.com. Accessed 28 April 2015.