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## THE IMAGE OF MOTHER'S LEVEL OF KNOWLEDGE ABOUT DIARRHEA IN TODDLERS IN THE WORKING AREA CLINICS TOBELO SUBDISTRICTS TOBELO NORTH HALMAHERA

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### ABSTRACT

Toddler diarrhea sufferers at work-area Clinics Tobelo 2018 as much as 112 cases. Things aspects influenced the occurrence consists of a variety of factors, one of which is the knowledge of the mother, associated with knowledge about diarrhea in toddler to work-area Clinics Tobelo. This research aims to know the description of the mother's level of knowledge about diarrhea in toddlers in the working area clinics Tobelo. Type of this research is quantitative research with descriptive design. The number of samples in the study amounted to 28 people acquired through accidental sampling and data capture using questionnaire. Whereas for the knowledge category, in the category of good knowledge was obtained (66.3%), sufficient knowledge (24.3%), and at the level of lack of knowledge amounted to (9.2%) with an average level of mother knowledge obtained (33.2 %). From these results, the conclusions in this study are the level of maternal knowledge about diarrhea in children under five classified in the category of knowledge level with a percentage of  $\leq 55\%$ . For further researches, they can continue this research with different research methods, different variable, more population and samples so that it will produce better quality research.

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## INTRODUCTION

Diarrhea is a change in stool consistency and an increased frequency when defecating. A person who is said to have diarrhea if the stool is released is more runny than usual, or if a bowel movement is runny but does not bleed within 24 hours and diarrheal disease is a collection of symptoms of infection in the digestive tract that can be caused by several organisms, such as bacteria, viruses and parasites. Some of these organisms can infect the human digestive tract through food and drinks that have been contaminated by these organisms, thus it is necessary to prevent diarrhea.<sup>(1)</sup>

According to WHO (2013) diarrheal disease is still the main cause of death in the world, accounting for 5-10 million deaths / year. The magnitude of the problem is seen from the high rates of morbidity and mortality due to diarrhea. The World Health Organization (WHO) estimates that 4 billion cases occur in the world and 2.2 million of them die, and most of the children are under 5 years of age. According to data in America, every child has 7-15 episodes of diarrhea with an average age of 5 years. According to data in developing countries the average child under 5 years of age has diarrhea episodes three to four times per year.<sup>(2)</sup>

Diarrhea is an endemic disease in Indonesia, which is a potential disease of extraordinary events that often occurs with a fairly high Case Fatality Rate and this is a problem in Indonesia. According to Riskesdas (2013), diarrhea is a major cause of death in children under five. In 2015 there were 18 extraordinary events of diarrhea spread in 11 provinces, 18 districts / cities, with a total of 1,213 people and 30 deaths (CFR 2.4%). The mortality rate (CFR) when an extraordinary incidence of diarrhea is expected to be <1%, but judging by the recapitulation of the extraordinary incidence of diarrhea from 2008 to 2015, it is seen that CFR of extraordinary events is still quite high (> 1%). Thus nationally, CFR extraordinary events do not reach the program.<sup>(3)</sup>

Indonesian Health Profile Data (2017), Diarrhea is an endemic disease in Indonesia and is also a potential outbreak disease which is often accompanied by death. In 2016 there were 23 outbreaks of diarrhea in 3 provinces (NTT-Kupang District 107 cases 2.80%), (Central Java Porworejo District 56 cases 5.36%), (SUMUT Kab. Binjai District 35 cases), with a total of 198 people (CRF 3.04%). Mortality rate (CRF) when diarrhea outbreaks are expected <1%. The death rate in 2015 was recorded (2.47%) and increased in 2016 to (3.04%). The service coverage target for diarrhea patients who come to health facilities and health cadres

is 10% of the estimated number of diarrhea sufferers. National diarrhea incidence is estimated that the number of diarrhea sufferers in health facilities in 2016 was 6,897,463 people, while the number of diarrhea sufferers reported to be handled in health facilities was 3,198,411 people or 46.4% of the target<sup>(4)</sup>.

Judging from the age distribution of children with diarrhea in 2014, the greatest prevalence was in the 6-11 month age group, namely 21.65%, then the 12-17 month age group at 14.43%, 24-29 age group at 12.37%, while the smallest prevalence in the 54-59 month age group is 2.06%. The highest incidence age group in the age group 6-11 months when given ASI supplementary food (5).

Based on data from the District / City Health Profile of North Maluku Province (2014) the number of diarrhea cases handled was reported as many as 21528 patients (86.5%), 12076 patients or 2.7% of the total estimated number of patients. While the number of diarrhea patients treated in North Halmahera Regency is 1,458 (31%).<sup>(6)</sup>

Health Profile of North Halmahera Regency (2014) the number of diarrhea cases for 2014 was 3,779 1,932 male and 1,846 female patients. Patients found were 722 people, consisting of men (388) and women (384). Percentage of diarrhea patients to the estimated number of diarrhea patients was 20.43%, consisting of men (20.8%) and women (20.80%). All patients treated (100%). Some of the factors that cause diarrhea are food poisoning, an unclean environment, snacks of unhygienic school children, cooking in the open in an environment that is not clean and using expired raw materials<sup>(7)</sup>.

According to data from the Health Center of Tobelo, the discovery of diarrhea patients in the working area of the Tobelo Public Health Center, Tobelo Subdistrict, North Halmahera Regency from November 2017 to May 2018, found 112 diarrhea cases with 73 female toddlers and 39 boys under five.

Based on the description above, the researcher is interested in conducting research with the title "Overview of the Knowledge of Mothers About Diarrhea in Toddlers in the Working Area of the Tobelo Health Center in Tobelo District North Hamahera District".

This study aims to describe the level of maternal knowledge about diarrhea in children under five in the working area of the Tobelo Public Health Center, Tobelo District, North Halmahera Regency.

Research by Tirta Adi Kusuma Suparto (2015) with the title "Overview of Mother's Knowledge of Diarrhea in Toddlers in Padasuka Village". The research

method used is quantitative descriptive with stratified random sampling technique. The results showed that (60%) respondents had good knowledge, (38%) had sufficient knowledge and (2%) respondents had less knowledge. The best mastery of maternal knowledge about diarrhea is that the material about diarrhea prevention is 80%, while for mastering mother's knowledge, the least is located in the material about food that is avoided, which is 64%. This is likely due to the frequent information about prevention of diarrhea delivered through health counseling by health workers, but for delivery / counseling about food when exposed to diarrhea. <sup>(8)</sup>

## METHODS

The type of research used in this study is quantitative research with a descriptive approach that aims to describe the research object or research results. Quantitative research methods are used to examine certain populations and samples, certain sampling techniques, the sampling technique is generally done randomly, data collection uses research instruments, data analysis is quantitative / statistical with the aim of testing predetermined hypotheses. <sup>(9)</sup>

The population in this study were 112 people, they were mothers with age <40 years who had children with diarrhea with domicile in the working area of the Tobelo City Health Center, Tobelo District, North Halmahera Regency. With a sample of 28 people (25%). The technique used is accidental sampling.

Data collection instruments are tools that are determined by researchers and used to extract data, so that the process of data collection activities can take place systematically (18). The instrument used in this study is questionnaire to measure the level of maternal knowledge about diarrhea in children under five which contains 19 items with Guttman scale answers and for scoring is done based on the provisions, the correct answer is given a score of 1 and the wrong answer is given a score of 0, the score of each - each respondent was added up, compared to the maximum score, then multiplied by 100. The results of the last calculation then showed the respondent's knowledge about diarrhea. The scores obtained are then categorized according to the categories of knowledge presented by Notoatmodjo (2014) to good knowledge (score:> 76%), sufficient knowledge (score: 56-76%), lack of knowledge (score: <56%).

## RESULTS

### 1. Age of Mother

**Table 1.** Distribution of Frequency of Respondents Who Have Toddlers with Age-Based Diarrhea in the Tobelo Health Center Work Area in 2018.

Age of Mother	Frequency	Percentage %
20 - 25 Th	18	64,3
26 – 31 Th	4	14,3
≥ 31 Th	6	21,4
Total	28	100

Based on Table 1 the frequency distribution of respondents who have diarrhea under five at Tobelo Health Center from 28 respondents found that most of the respondents aged 20-25 years were 18 people (64%), then ≥31 years old were 6 people (21.4%) and 26-31 years were 4 people (14.3%).

### 2. Mother's Education

**Table 2.** Distribution of Frequency of Respondents Who Have Toddler Diarrhea Based on Education in the Tobelo Health Center Work Area in 2018.

Mother's Education	Frequency	Percentage %
SD	-	0
SMP	4	14,3
SMA	22	78,6
PT	2	7,1
Total	28	100

Based on Table 2 frequency distribution of respondents who have diarrhea toddlers at the Tobelo Health Center from 28 respondents found that the majority of respondents' level of education is the age of senior high school which is 22 people (78.6%), followed by junior high school 4 people (14.3%), and PT as many as 2 people (7.1%), while SD did not exist (0%).

### 3. Mother's Work

**Table 3.** Distribution of Frequency of Respondents Who Have Toddler Diarrhea Based on Work in the Tobelo Health Center Work Area in 2018.

Mother's Work	Frequency	Percentage %
Civil Servant	4	14,3
Entrepreneurs	16	57,2
Housewives	8	28,5
Total	28	100

Based on Table 3 frequency distribution of respondents who have diarrhea toddlers in the Tobelo Health Center from 28 respondents found that most respondents worked as entrepreneurs as many as 16 people (57.2%), then housewives as many as 8 people (28.5%), and as a civil servant as many as 4 people (14.3%).

#### 4. Age of A Toddler

**Table 4.** Distribution Frequency of Respondents Who Have Toddlers with Age-Based Diarrhea in Toddlers in the Tobelo Health Center Work Area in 2018.

Age of A Toddler	Frequency	Percentage %
12-36 Months	19	67,8
36-59 Months	9	32,2
Total	28	100

Based on Table 4 frequency distribution of respondents who have diarrhea toddlers at Tobelo Health Center from 28 respondents found that most of those who experienced diarrhea at the age of 12-36 months were 19 toddlers (67.8%), while at the age of under five 36-59 months 9 toddlers (32.1%).

#### 5. Gender Toddler

**Table 5.** Distribution Frequency of Respondents Who Have Toddlers with gender Toddler in the Tobelo Health Center Work Area in 2018.

Gender	Frequency	Percentage %
Male	16	57,2
Female	12	42,8
Total	28	100

Based on Table 5 frequency distribution of respondents who have diarrhea toddlers at Tobelo Health Center from 28 respondents found that most of those who experienced diarrhea were male in the amount of 16 toddlers (57.2%), while toddlers of female sex were 12 toddlers (42, 8%).

#### 6. Knowledge of mothers about diarrhea in toddler

**Table 6.** Distribution of Frequency of Respondents Who Have Toddler Diarrhea Based on the Level of Mother's Knowledge in the Working Area of the Tobelo Health Center in 2018.

Knowledge	Frequency	Percentage %
Good	17	60,7
Amounted	6	21,4
Less	5	17,9
Total	28	100

Based on Table 6 the frequency distribution of respondents who have diarrhea toddlers in the Tobelo Health Center from 28 respondents found that most of the mother's level of knowledge about diarrhea is good knowledge with a total of 17 people (60.7%), namely respondents who understand the meaning of diarrhea, causes, signs and symptoms, management and effects of diarrheal diseases. While mothers with sufficient knowledge category amounted to 6 people (21.4%), namely mothers who understand the definition of diarrhea, causes, signs and symptoms, and management. And the mother with a lack of knowledge category was 5 people (17.9%) namely mothers who understood the understanding of diarrhea and some signs and symptoms.

#### 7. Mother Knowledgege

**Table 7.** Distribution of Frequency of Respondents Who Have Toddler Diarrhea Regarding the Level of Knowledge Based on the Categories of Maternal Knowledge in the Tobelo Health Center Work Area in 2018.

Diarrheal diseases	Knowledge						Total	
	Good		Amounted		Less		N	%
Benar	264	66,3	97	24,3	37	9,2	398	100
Salah	0	0	0	0	0	0	0	0
Total	264	66,3	97	24,3	37	9,2	398	100

Based on table 7 frequency distribution of respondents who have diarrhea toddlers in the Tobelo Health Center work area at the level of maternal knowledge of 28 respondents studied based on knowledge categories obtained a good level of knowledge with 264 correct answers, while knowledge is sufficient with 97 correct answers, then for the level of knowledge is lacking, the number of correct answers is 37.

## DISCCUSION

### 1. Characteristics of Respondents

The incidence of diarrhea that occurred in the Tobelo Health Center work area based on the results of research on maternal age distribution of respondents in

the majority of 20-25 years old as many as 18 people (64.3%). This research is in line with the results of Asnidar's (2015) research conducted at the Goa District Bontonompo II Health Center, that most of the respondents based on age were the most respondents found in the age group of 20-25 years, amounting to 30 people (37%).<sup>(10)</sup>

Based on the results of the study, the majority of respondents with high school education were 22 people (78.6%). This is in line with the quality of the population of North Halmahera Regency, illustrated by the Human Development Index (HDI) in North Halmahera District which was contributed by the education index, with literacy indicators reaching 66.52% with the average length of schooling at 8.16 that is equivalent to high school.<sup>(11)</sup>

Based on the results of the study it was found that the majority of maternal jobs are self-employed with a total of 16 people (57.2%). This is different from the results of Milanda's (2017) study which stated that most mothers were IRT with 61 people (57.0%) from 177 respondents.<sup>(12)</sup>

## 2. Characteristics of Toddler

The distribution of toddler age obtained in this study was 12-36 months, namely 19 toddlers (67.8%). While toddlers with ages 36-59 months totaled 9 people (32.2%). Widya Astuti (2006) in the Milanda study (2017) said that this incident occurred in a group of children under five who were more susceptible to infection, even suffering from more severe illnesses. In this group it is also easy to experience dehydration and other complications due to malnutrition and can also lead to death.<sup>(11)</sup>

The distribution of freukensi according to the sex of children under five in this study is relatively the same, but the most are male sex with 16 toddlers (57.2%), while toddlers with female gender were 12 toddlers (42.8%). This study is in line with the data on the incidence of diarrhea found in North Halmahera District in 2014, the highest cases of diarrhea were in the male gender with the number of 388 people and female gender totaling 384 people.

## 3. Mother's Knowledge Level

The level of maternal knowledge based on the results studied found that the majority of mothers with good knowledge amounted to 17 people (60.7%). The results of research conducted by Malikh, et al (2012) in Hegarmanah Jatinangor Village in Milanda's (2017) study explained that the frequency distribution of maternal knowledge about diarrhea in toddlers from 88

respondents found 53 people (60.23%) had good knowledge<sup>(11)</sup>.

## CONCLUSION

Based on the results of data tabulation and discussion in research that has been conducted by researchers on the description of the level of maternal knowledge about diarrhea in children under five in the working area of Tobelo Public Health Center, Tobelo District, North Halmahera District in 2018, the level of knowledge of mothers with good knowledge was 17 people (60.7 %) of 28 respondents. Whereas for the knowledge category, in the category of good knowledge was obtained (66.3%), sufficient knowledge (24.3%), and at the level of knowledge lacking (9.2%). Based on the above percentage, the average level of mother's knowledge was obtained (33.2%). From these results, it can be concluded that the level of maternal knowledge about diarrhea in children under five in the working area of Tobelo Public Health Center, Tobelo Subdistrict, North Halmahera District is classified into the Less knowledge level with a percentage of  $\leq 55\%$ .

## RECOMENDED

For health services, especially the Tobelo Health Center, Tobelo Subdistrict, North Halmahera District can provide health education evenly in the Tobelo Health Center work area and provide follow-up, especially about diarrhea in toddlers with the hope that the incidence of diarrhea will decrease every year.

1. For the community, it is hoped that they can have good behavior in accordance with the knowledge they have in preventing diarrhea in children under five, so the incidence of diarrhea can be reduced.
2. The next researcher can continue this research with different research methods, different variables, more population and samples so that it will produce better quality research.

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