Factors Associated with the Incident of Diarrhea among Children

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ABSTRACT

Diarrhea is still a global problem with high levels of morbidity and mortality in various countries, especially in developing countries, and is one of the main causes of high rates of child morbidity and mortality in the world. The number of diarrhea sufferers found in Indonesia is estimated to be around 60 million cases every year. The number of diarrhea incidents in Dr. M. Yunus in Bengkulu Province in 2017 there were still 193 toddlers (13.3%). To determine the factors associated with the incidence of diarrhea in toddlers at RSUD Dr. M. Yunus Hospital Bengkulu Province in 2017. This research is an analytical survey with a cross sectional design. The sampling technique was carried out using a total sampling of 150 toddlers. The research instrument consisted of a questionnaire about socio-economic status and rotavirus immunization. Meanwhile, the questionnaire contains knowledge about the incidence of diarrhea. This questionnaire has been tested for validity and reliability with a Cronbach's alpha coefficient value of 0.752. Data were analyzed using univariate and bivariate analysis. From 150 samples, it was found that the largest group of respondents did not suffer from diarrhea, 113 respondents (75.3%), with 111 respondents (98.2%) having good knowledge, 81 respondents (98.8%) who had good socio-economic status. good nutritional status of 84 respondents (96.6%) and rotavirus immunization of 112 respondents (97.4%). The results of analysis using the chi-square test showed that there was a significant relationship between maternal knowledge (P= 0.000), socio-economic status (P= 0.000), nutritional status (P= 0.000), and rotavirus immunization (P= 0.000) with the incidence of diarrhea. in toddlers at RSUD Dr. M. Yunus Hospital Bengkulu Province 2017. There is a relationship between the incidence of diarrhea in toddlers at Dr. M. Yunus Hospital Bengkulu Province with maternal knowledge, socio-economic status, nutritional status, and rotavirus immunization. It is hoped that health workers can provide more education in the community to increase mothers' knowledge about diarrhea so that it can help prevent diarrhea incidents.

Keywords: diarrhea incidence toddlers; knowledge; socioeconomic status; nutritional status; rotavirus immunization

INTRODUCTION

According to 2013 World Health Organization (WHO) data, there were 1.7 billion cases of diarrhea with an incidence of 760,000 children under 5 years of age occurring each year (Ekawati, et al, 2015). Every nutrient a toddler needs to grow in each episode is lost due to diarrhea. Diarrhea is said to be the leading cause of malnutrition in children and the main cause of death in toddlers. Diarrhea is the discharge of feces mixed with water that occurs 4 or more times in one day (Anik, 2013).

The high incidence of diarrhea is caused by several factors, namely viruses and bacteria (34.6%), carbohydrate malabsorption and lactose intolerance (22.4%), food (11.7%), mother's level of knowledge and education (11.2%), demographics and hygiene (10.9%), and other causes (9.2%) (United Nations, 2013). Rotavirus is the leading cause of diarrhea with severe dehydration in children under 5 years of age worldwide (Ministry of Health, 2011). Initial survey results obtained in the pediatric care room (Edelweiss) Dr. M. Yunus Hospital Bengkulu, in 2015 the number of visits was 1,887 toddlers with the incidence of diarrhea in 335 toddlers or 17.7%. In 2016, it fell to 10.2% with 2,155 visits and an incidence of 220 children under five. Meanwhile, in 2017 the number of visits from January to October was 1,445 with an incidence of diarrhea of 193 children under five or 13.3%. Thus, there was a decrease in the incidence rate by 7.5% from 2015 to 2016 and increased again by 3.1% in 2017. Several causes of diarrhea were recorded in the Edelweiss room at Dr. M.

Yunus Hospital, Bengkulu province in 2016, namely 27% not being immunized against rotavirus, 23% lacking in maintaining cleanliness, 22% low-income level, and 15% low maternal education, resulting in a 13% lack of knowledge. Meanwhile, the impact of diarrhea in toddlers is 78% dehydration, 19% seizures and 3% death.

The high incidence of diarrhea due to rotavirus, as well as the high death rate due to rotavirus diarrhea, which cannot be overcome simply by maintaining hygiene and sanitation, demands a new breakthrough in overcoming health problems caused by rotavirus, namely a vaccine (Ministry of Health, 2011). Providing the rotavirus vaccine is one of the 7 steps recommended by WHO for comprehensive diarrhea control. In April (2009), WHO recommended that all health institutions worldwide provide rotavirus vaccination in national immunization programs. However, the price of the rotavirus vaccine is not yet affordable, so there are still many middle and lower-class people who have not received rotavirus immunization.

Based on the description above, it is necessary to research what factors are associated with diarrhea in toddlers who visit the pediatric care room (edelweiss) at Dr. M. Yunus Hospital Bengkulu Province in 2017.

METHOD

This research is an analytical survey by studying the dynamics of the correlation between risk factors and effects, using an approach, observation, or data collection at one time (point time approach) called a cross sectional survey (Notoatmodjo, 2010). The total population is 150 people who visit RSUD Dr. M. Yunus Hospital, Bengkulu province. The sampling technique in this research uses the total population. The sample for this study was 150 people. Data was collected using a questionnaire from November 23 to December 15, 2017. Data were analyzed univariately and bivariately.

RESULT

Frequency Distribution of Diarrhea in Toddlers

Table 1. Frequency Distribution of Diarrhea in Toddlers at RSUD Dr. M. Yunus Hospital Bengkulu Province in 2017

Incident Diarrhea in Toddlers	Frequency	Percentage
Diarrhea	37	24.7
No diarrhea	113	75.3
Total	150	100

Based on the table, it can be concluded that out of 150 respondents, there were 113 (75.3) respondents who did not experience diarrhea.

Frequency Distribution of Mother's Knowledge

Table 2. Frequency Distribution of Mother's Knowledge at RSUD Dr. M. Yunus Hospital Bengkulu Province in 2017

Mother's Knowledge	Frequency	Percentage
Poor	37	24.7
Good	113	75.3
Total	150	100

Based on the table, it can be concluded that of the 150 respondents, there were 113 people (75.3%) who had good knowledge.

Frequency Distribution of Socioeconomic Status

Table 3. Frequency Distribution of Socioeconomic Status at RSUD Dr. M. Yunus Hospital Bengkulu Province in 2017

Socioeconomic Status	Frequency	Percentage
Poor	30	20.0
Medium	38	25.3
Good	82	54.7
Total	150	100

Based on the table, it can be concluded that of the 150 respondents, there were 82 people (54.7%) who had good economic status, and 38 people (25,3%) who had medium economic status.

Frequency Distribution of Nutritional Status

Table 4. Frequency Distribution of Nutritional Status at RSUD Dr. M. Yunus Hospital Bengkulu Province in 2017

Nutritional Status	Frequency	Percentage
Bad Nutrition	20	13.3
Under Nutrition	13	8.7
Good Nutrition	87	58.0
Over Nutrition	30	20.0
Total	150	100

Based on the table, it can be concluded that of the 150 respondents, there were 87 people (58.0%) who had good nutritional status, and 30 people (20,0%) who had over nutritional status.

Frequency Distribution of Rotavirus Immunization Status

Table 5. Frequency Distribution of Rotavirus Immunization Status of Toddlers at RSUD Dr. M. Yunus Hospital Bengkulu Province in 2017

Rotavirus Immunization Status	Frequency	Percentage
Immunization	115	76.7
Not Immunization	35	23.3
Total	150	100

Based on table it can be concluded that out of 150 respondents, there were 115 children (76.7%) under five who received rotavirus immunization.

The Relationship between Maternal Knowledge and the Incidence of Diarrhea in Toddlers

Table 6. The Relationship between Maternal Knowledge and the Incidence of Diarrhea in Toddlers at Dr. M. Yunus Hospital Bengkulu Province in 2017

No.	Mothers' Knowledge	Incidence of Diarrhea in Toddlers				Total		p-value
		Diarrhea		Not Diarrhea				
		f	%	f	%	N	%	
1	Poor	35	94.6	2	5.4	37	100	0.000
2	Good	2	1.8	111	98.2	113	100	
	Total	37	24.7	113	75.3	150	100	

Based on the table. it is known that of the 150 respondents, the majority of toddlers who did not experience diarrhea were toddlers who had mothers with good knowledge, namely 111 toddlers (98.2%) and the majority of toddlers who experienced diarrhea were toddlers who had mothers with poor knowledge, namely 35 toddlers (94.6%).

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From the statistical test, it was found that the p-value was (0.000) < α (0.05), so it could be concluded that H0 was rejected, meaning that there was a significant relationship between maternal knowledge and the incidence of diarrhea in toddlers at Dr. M. Yunus Hospital Bengkulu Province in 2017.

The Relationship between Socio-economic Status and the Incidence of Diarrhea in Toddlers

Table 7. The Relationship between Socio-economic Status and Incidence Diarrhea in Toddlers
at RSUD Dr. M. Yunus Hospital Bengkulu Province in 2017

| No. | Sosio-economic Status | Incidence of Diarrhea in Toddlers | | | | Total | | p-value |
| | | Diarrhea | | Not Diarrhea | | | | |
		f	%	f	%	N	%	
1	Poor	30	100	0	0	30	100	0.000
2	Medium	6	15.8	32	84.2	38	100	
3	Good	1	1.2	81	98.8	82	100	
	Total	37	24.7	113	75.3	150	100	

Based on the table, it is known that of the 150 respondents, the majority of toddlers who did not experience diarrhea were toddlers who had good socio-economic status, namely 81 toddlers (98.8%), followed by toddlers who had medium socio-economic status, namely 38 toddlers (84.2%), while the majority of toddlers who experience diarrhea are toddlers who have low socio-economic status, namely 30 toddlers (100%), followed by toddlers who have moderate socioeconomic status, namely 6 toddlers (15.8%) .

From the statistical test, it was found that the p value was (0.000) < α (0.05), so it could be concluded that H0 was rejected, meaning that there was a significant relationship between socio-economic status and the incidence of diarrhea in toddlers at RSUD Dr. M. Yunus Hospital Bengkulu Province in 2017.

The Relationship between Nutritional Status and the Incidence of Diarrhea in Toddlers

Table 8. The Relationship between Nutritional Status and the Incidence of Diarrhea in Toddlers
at Dr. M. Yunus Bengkulu Province 2017

| No. | Nutritional Status | Incidence of Diarrhea in Toddlers | | | | Total | | p-value |
| | | Diarrhea | | Not Diarrhea | | | | |
		f	%	f	%	N	%	
1	Bad Nutrition	20	100	0	0	20	100	0.000
2	Under Nutrition	13	100	0	0	13	100	
3	Good Nutrition	3	3.4	84	96.6	87	100	
4	Over Nutrition	1	3.3	29	96.7	30	100	
	Total	37	24.7	113	75.3	150	100	

Based on the table, it is known that of the 150 respondents, the majority of toddlers who did not experience diarrhea were toddlers who had good nutritional status, namely 84 toddlers (96.6%), followed by toddlers who had more nutritional status, namely 29 toddlers (96, 7%), while the majority of toddlers who experience diarrhea are toddlers who have poor nutritional status, namely 20 toddlers (100%), followed by toddlers who have poor nutritional status, namely 13 toddlers (100%).

From the statistical test, it was found that the p value was (0.000) < α (0.05), so it could be concluded that H0 was rejected, meaning that there was a significant relationship between nutritional status and the incidence of diarrhea in toddlers at RSUD Dr. M. Yunus Hospital Bengkulu Province 2017.

The Relationship between Rotavirus Immunization and the Incidence of Diarrhea in Toddlers

Table 9. The Relationship between Rotavirus Immunization and the Incidence of Diarrhea in Toddlers
at RSUD Dr. M. Yunus Hospital Bengkulu Province in 2017

| No. | Rotavirus Immunization | Incidence of Diarrhea in Toddlers | | | | Total | | p-value |
| | | Diarrhea | | Not Diarrhea | | | | |
		f	%	f	%	N	%	
1	Not immunization	34	97.1	1	2.9	35	100	0.000
2	Immunization	3	2.6	112	97.4	115	100	
	Total	37	24.7	113	75.3	150	100	

Based on the table, it is known that of the 150 toddlers, the majority of toddlers who did not experience diarrhea in toddlers were toddlers who had received rotavirus immunization, namely 112 toddlers (97.4%), and the majority of toddlers who experienced diarrhea were toddlers who did not receive rotavirus immunization, namely amounting to 34 toddlers (97.1%).

From the statistical test, it was found that the p-value was (0.000) < α (0.05), so it could be concluded that H0 was rejected, meaning that there was a significant relationship between rotavirus immunization and the incidence of diarrhea in toddlers at RSUD Dr. M. Yunus Hospital Bengkulu Province in 2017.

DISCUSSION

Frequency Distribution of Diarrhea Events

Based on the research results, it can be concluded that of the total number of toddlers who visited Dr. M. Yunus Hospital Bengkulu Province, the majority of respondents did not experience diarrhea. Diarrhea is watery defecation that occurs more than 3 times a day and is mixed with blood and mucus or not (Anik, 2013). The factors that cause diarrhea are infection factors (enteral infection, parental infection), malabsorption factors, food factors, psychological factors and environmental factors (Anik, 2013; Ariani 2016). Diarrhea is an endemic disease in Indonesia and is also a potential outbreak which is often accompanied by death (Ekawati, 2015). The incidence of diarrhea in toddlers is 6.7%, while the period prevalence of diarrhea in toddlers is 10.2%.

This is in line with research conducted by researchers, namely that there were 37 (24.7%) toddlers who experienced diarrhea from a total of 150 visits by toddlers in the children's care room at Dr. RSUD. M. Yunus Hospital Bengkulu Province 2017. The results of this research are in accordance with research conducted by Sukardi, Yusian, and Tina (2016), in their research namely from 34 respondents, 21 respondents (61.8%) experienced diarrhea. Likewise, Meliyanti (2016), in her research found that the majority of respondents suffered from diarrhea, namely 61.6%. Based on observations in research conducted by researchers at RSUD Dr. M. Yunus Hospital, Bengkulu Province in 2017, it was discovered that the majority of diarrhea cases were caused by poor maternal knowledge, low socio-economic status, poor nutritional status and not receiving rotavirus immunization. It is hoped that there will be a special program for providing routine schedules by health workers, especially in remote areas. There is equitable development, the provision of jobs with income equal to or more than the UMP, and the existence of a government assistance program to make rotavirus vaccine free or reduce the price.

Frequency Distribution of Mother's Knowledge

Based on the research results, it can be concluded that of the total number of toddlers who visited Dr. M. Yunus Hospital, Bengkulu Province, most respondents who did not experience diarrhea had good maternal knowledge. This is in accordance with Ariani's (2016) statement that maternal knowledge is very influential in managing diarrhea at home.

Because if the knowledge is good, the mother will know about how to care for a child with diarrhea at home, especially about oral rehydration efforts and the mother will also know about the signs to take the child for treatment or refer him to a health facility. Knowledge is closely related to a person's education, usually someone with a high level of formal education will have a higher level of knowledge compared to someone with a lower level of education (Ariani, 2016). This is in accordance with research conducted by (Wijaya, 2012), with sufficient knowledge that a mother can implement healthy living behavior, know about prevention and can handle any risks that can cause diarrhea and vice versa.

The results of this research are the same as the results of Wijaya's (2012) research which states that there is a significant relationship between the level of maternal knowledge and the incidence of diarrhea among toddlers living around the Banaran TPS on the UNNES campus. With an OR value of 16, it is known that the risk of developing diarrhea in toddlers with a mother's knowledge level in the sufficient category is 16 times greater than the mother's knowledge level

in the good category. The research results found that 53 mothers had good knowledge about diarrhea, 34% of their children under five had diarrhea and 66% of their children under five did not experience diarrhea.

Frequency Distribution of Socioeconomic Status

Based on the research results, it can be concluded that of the total number of toddlers who visited Dr. M. Yunus Hospital, Bengkulu Province, the majority of respondents who did not experience diarrhea had good socio-economic status. In contrast, the majority of respondents who experienced diarrhea had poor socio-economic status. According to Suryani (2013), socioeconomics is closely related to parents' work and income which will later influence energy consumption. This statement is in line with Ariani's (2016) statement that low socio-economic status will affect the nutritional status of family members. This can be seen from the family's economic inability to meet the family's nutritional needs, especially for children under five, so they tend to have poor nutritional status or even poor nutritional status which makes it easier for toddlers to get diarrhea.

This is reinforced by Marisa's (2015) research with the results obtained from 25 cases, 18 respondents had low family income. (72%) and of the 25 controls, 8 respondents had low family income (32%), meaning that there was a significant relationship between the family income variable and the incidence of diarrhea and moderate dehydration in toddlers in the Mangkang health center working area, Semarang City in 2015. Odd Ratio (OR) = 5.464 (95% CI = 1.627-18.357), indicating that respondents whose family income is low have a 5.464 times greater risk of their toddler suffering from moderate dehydration diarrhea than respondents whose family income is high. In line with research conducted by Cahyaningrum (2015), which states that low economic status has a higher risk factor for diarrhea than families who have high economic status, namely 113 (45.0%) toddlers out of 190 (75.7%) toddlers who experienced diarrhea.

Frequency Distribution of Nutritional Status

Based on the research results, it can be concluded that of the total visits of toddlers at RSUD Dr. M. Yunus Hospital, Bengkulu Province, the majority of respondents who did not experience diarrhea had good nutritional status. According to Supariasa, (2016) nutritional status is an expression of a state of balance in the form of certain variables.

Nutritional status is the condition of the body as a result of food intake and utilization of nutrients by the body (Kurniyawan et al., 2023). The nutritional condition is the result of a balance between the status of consumption and absorption of nutrients and the use of these nutrients, or the physiological condition resulting from the availability of nutrients in the body's cells. This is in line with Ariani's (2016) statement that diarrhea causes malnutrition and makes diarrhea worse. Babies and toddlers who are malnourished mostly die from diarrhea. This is caused by dehydration and malnutrition. In children who are malnourished due to inadequate feeding, episodes of acute diarrhea are more severe, last longer and are more frequent. Risk of death due to persistent diarrhea or dysentery increases greatly if the child is malnourished. Zulkifli (2013) added that poor nutritional status has a greater chance of suffering from diarrhea, while toddlers with good nutritional status have a smaller chance of suffering from diarrhea. This statement is in line with Rahayu's (2015) research which stated that 4 respondents (13.5%) of toddlers who experienced diarrhea had poor nutritional status.

This research is different from Ekawati's (2015) research from 102 toddler respondents who experienced diarrhea who had good nutritional status, namely 75 respondents.

In the researcher's opinion, the difference in research results is thought to occur due to the way the food was processed. If vegetables are overcooked, they will eliminate the nutrients they contain. In animal proteins such as meat, fish, and so on, if they are undercooked, it is suspected that there are still bacteria remaining in them. So good food processing methods greatly influence nutritional intake.

Frequency Distribution of Rotavirus Immunization

Based on the research results, it can be concluded that of the total visits of toddlers at RSUD Dr. M. Yunus Hospital, Bengkulu Province, the majority of respondents who did not experience diarrhea had received rotavirus immunization. According to the Ministry of Health (2011), the mechanism of diarrhea caused by rotavirus infection is known through various different mechanisms. Rotavirus is a virus that is resistant to various environments, so it can be transmitted through various contaminated objects, water or food. According to WHO, rotavirus contributes to 15-25% of diarrhea in toddlers aged 6-24 months. Rotavirus may be transmitted via oral-fecal route by contact or respiratory tract.

This statement is in line with research by Maysaroh (2016), with the research which states that the average duration of diarrhea suffered by toddlers in the fully immunized group smaller compared to the incomplete immunization group. This is different from research conducted by Cahyaningrum (2015), which stated that based on the characteristics of the immunization status of 251 toddlers it was found that there were 2 (8%) toddlers with incomplete immunization status and

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the results of bivariate analysis showed no relationship between immunization status and the incidence of diarrhea, namely with a p value of 0.644. In the researcher's opinion, the difference in the number of diarrhea incidents was not significant between the groups of toddlers with complete and incomplete immunization in this study because diarrhea is not only caused by immunization status.

The relationship between maternal knowledge and the incidence of diarrhea

Based on the research results, it is known that the majority of respondents who did not experience diarrhea were respondents who had good knowledge, while the majority of respondents who experienced diarrhea were respondents who had poor knowledge. From statistical tests, the results showed that there was a significant relationship between maternal knowledge and incidence of diarrhea in toddlers. According to Ariani (2016), the more information one receives, the more knowledge one gets about diarrhea. This statement is in line with research conducted by Kusumawati (2012), which states that there is a relationship between the mother's level of knowledge about diarrhea and the treatment of diarrhea. on toddlers while at home before being taken to Surakarta hospital.

This is different from the results of research by Ismil, Jurnalis, and Rane (2013) where based on the results of the chi square test, the level of knowledge has no relationship with the incidence of acute diarrhea in toddlers with p = 0.749.

In the opinion of researchers, mothers who have a high level of knowledge but still have toddlers who experience diarrhea are likely to have jobs outside the home all day so that their children are looked after by other family members or caregivers who have a low level of knowledge, or perhaps mothers of toddlers who have high knowledge about diarrhea but not applied when living daily life in caring for toddlers.

The relationship between socio-economic status and the incidence of diarrhea

Based on the research results, it is known that the majority of respondents who did not experience diarrhea were respondents who had good socio-economic status, while the majority of respondents who experienced diarrhea were respondents who had poor economic status. From statistical tests the results showed that there was a significant relationship between Socioeconomic status and the incidence of diarrhea in toddlers. According to Ariani (2016) socio-economics has a direct influence on the factors that cause diarrhea. Most children who easily suffer from diarrhea come from large families with low purchasing power, poor housing conditions, lack of adequate clean water supplies and no healthy bathrooms or latrines.

This is in line with research conducted by Marissa (2015) stating that there is a significant relationship between the income variable. family to the incidence of diarrhea with moderate dehydration. This is different from research conducted by Ernawati (2006) which stated that the Rank statistical test results Spearman shows that there is no relationship between the level of per capita income and the level of energy consumption. In the researcher's opinion, the research differences are thought to be related to several factors such as clothing, food, and shelter. Where nutritional needs in food affect the body's immune system so that it can prevent infections from entering. And the cleanliness of clothes also has a big influence on the health of toddlers.

The relationship between nutritional status and the incidence of diarrhea

Based on the research results, it is known that the majority of respondents who did not experience diarrhea were respondents who had good nutritional status, while the majority of respondents who experienced diarrhea were respondents who had poor nutritional status. From statistical tests, results were obtained which showed that there was a significant relationship between nutritional status and the incidence of diarrhea in toddlers. This is in line with Ariani's (2016) statement which states that diarrhea causes malnutrition and makes diarrhea worse. Therefore, treatment with good food is the main component of curing diarrhea. Babies and toddlers who are malnourished mostly die from diarrhea. This is caused by dehydration and malnutrition.

The nutritional status of children under five is not only influenced by direct factors such as poor nutrition and infectious diseases but is also influenced by indirect factors such as education level, income, and access to information such as childcare and access to quality health services (Kurniyawan et al., 2023). According to (Ariani, 2016) nutritional status has a big influence on diarrhea. In children who are malnourished due to inadequate feeding, episodes of acute diarrhea will be more severe, last longer and be more frequent. The possibility of persistent diarrhea is also more frequent, and dysentery is more severe. The risk of dying from persistent diarrhea or dysentery greatly increases if the child is malnourished. This statement is in line with Kartika's (2015) research which stated that based on the results of the Spearman statistical test with a significance level (α) = 0.05, the result was p = 0.030 thus showing that there is a relationship between nutritional status and the degree of dehydration in toddlers.

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Different research conducted by Fatimah (2016) stated that there was no significant relationship between the nutritional status of toddlers and the incidence of diarrhea in toddlers with a significant value of p=0.115. In the researcher's opinion, the differences in research are related to several factors such as knowledge, education and nutritional status. Where someone with a good socio-economic level does not understand the importance of nutritional status, and feels objection to high purchasing power, then they will not prioritize their nutritional status.

The Relationship between Rotavirus Immunization and Diarrhea

Based on the research results, it is known that the majority of respondents who did not experience diarrhea were respondents who had received rotavirus immunization, while the majority of respondents who experienced diarrhea were respondents who did not receive rotavirus immunization. From statistical tests, results were obtained which showed that there was a significant relationship between rotavirus immunization and the incidence of diarrhea in toddlers. The aim of immunization is to build a child's immune system so that it is able to fight various bacterial and viral disorders that exist around its environment.

This is different from research conducted by Cahyaningrum (2015), which stated that based on the characteristics of the immunization status of 251 toddlers it was found that there were 2 (8%) toddlers with incomplete immunization status and the results of bivariate analysis showed no relationship between immunization status and the incidence of diarrhea, namely with a p value of 0.644.

According to researchers, giving the rotavirus vaccine is very important in preventing diarrhea. This rotavirus vaccine prevents rotavirus from entering the body. The consequences of contracting rotavirus include fever, diarrhea, and severe vomiting, causing the child to lack fluids. The differences in research are likely due to the possibility that the success of immunization is not guaranteed 100%, such as the injection method being incorrect, or other possibilities such as vaccines that have expired or fake vaccines.

CONCLUSION

Between 150 respondents at RSUD Dr. M. Yunus Hospital, Bengkulu Province In 2017, the majority of respondents were those who did not experience diarrhea at 75.3%, with the majority of respondents having mothers with good knowledge at 75.3%, good socio-economic status at 54.7% followed by moderate socio-economic status at 25.3%, good nutritional status at 58.0% followed by over nutritional status at 20.0%, and those who had received rotavirus immunization at 76.7%. There is a significant relationship between maternal knowledge (p=0.000), socio-economic status (p=0.000), nutritional status (p=0.000), and rotavirus immunization (p=0.000) with the incidence of diarrhea in toddlers at RSUD Dr. M. Yunus Hospital, Bengkulu Province 2017.

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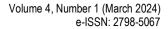
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