

Relationship Of Mother's Knowledge About PHBS With Children Diarrhea Case In Jagasatru Public Health Center, Cirebon City Year 2019

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ABSTRACT

The high morbidity due to diarrhea in children under five in Indonesia, including at the Jagasatru Public Health Center, Cirebon City, is above 30% in the last 3 years, and there is a tendency to increase every year. Diarrhea is still included in the top 10 most diseases at the Jagasatru Public Health Center, Cirebon City in the last two years. The coverage of household PHBS is still lacking, namely 51.7%, and from several research results there is a relationship between mother's knowledge and PHBS. Thus, we want to know how the relationship between mother/caregiver knowledge about PHBS and the incidence of diarrhea in toddlers at the Jagasatru Public Health Center, Cirebon City. This study is a quantitative study using a case-control design. The sample was 153 people, consisting of 51 cases and 102 controls. The case sample was a child under five who had diarrhea diagnosed by a health center doctor in the last 3 months which was obtained from the medical records of the Jagasatru Health Center and the control sample was a child under five who had not had diarrhea in the last 3 months whose residence was close to the house of the diarrhea sufferer. The number of sample cases: control is 1:2. The data analysis used was univariate, bivariate using chi square and multivariate using multiple logistic regression. The description of the incidence of diarrhea in this study, mothers with less knowledge 38.6, adult mothers 83%, mothers not working 92%, low income 62.7%, PHBS actions were not good 49.7%, mothers gave exclusive breastfeeding 60.8% , mothers wash their hands with soap 50.3%, family latrines meet the requirements 73.2%, treatment of drinking water is boiled until it boils 89.5%, littering 6.6% carry out measles immunization 85%. Variables related to the incidence of diarrhea include knowledge of PHBS mother/caregiver (p value < 0.001, OR 6.16, 95%, CI 2.94-12.86) PHBS measures (p value < 0.001, OR 5.09, 95%, CI 2.47-10.49) exclusive breastfeeding (p value < 0.001, OR 5.09, 95%, CI 2.94-12.86) washing hands with soap (p value < 0.001, OR 11.23, 95%, CI 4.75-26.59) drinking water treatment (p value 0.004, OR 5.31, 95%, CI 1.558-9.811) landfill (p value 0.016, OR 5.31, 95%, CI 0.132-21.54) and measles immunization (p value 0.005, OR 3.91, 95%, CI 1.558-9.811). The dominant variable is drinking water treatment (p value 0.002, OR 14.66, 95%, CI 2.94-12.86). In preventing diarrhea, mothers need to increase knowledge about PHBS, promote the importance of PHBS in every Puskesmas activity, inspection of basic sanitation facilities, especially bottled water facilities circulating in the community. Regular development of drinking water refill depots to maintain the quality of water sold to the public.

Keywords : Mother's Knowledge, Diarrhea Case

BACKGROUND

Diarrhea is defecation with a soft or liquid consistency and can even be in the form of water, with a frequency that is more frequent than usual (generally 3 or more times per day (Kemenkes RI, 2011). Diarrhea can cause dehydration (lack of electrolyte fluid in the body.) and even death if not managed properly, especially in children under five. Diarrhea is a public health problem in the world, including Indonesia. According to WHO, around 2 billion cases of diarrhea occur worldwide every year, and it is estimated that 1.9 million children die from diarrheal diseases. every year, and most of them occur in developing countries. 78% of under-five deaths due to diarrhea occur in countries in the African and Southeast Asian regions (World Gastro Organization, 2013)

The results of Riskesdas in 2007 reported that diarrhea was the number one cause of infant mortality (31.4%) and under-five mortality (25.2%). age (SKRT, 2001). The results of Riskesdas in 2018 reported that the prevalence of diarrhea at all ages in Indonesia was 8% and in infants it was higher at 12.3%. The five provinces with the highest prevalence of diarrhea in children under five are Papua 15.8%, North Sumatra 15.4%, NTB 15.1%, West Java 14.1% and Central Sulawesi 14.4%. The prevalence of diarrhea in children under five in the province of West Java is above the national average. The results of the Riskesdas also showed that diarrheal disease was more common in children aged 1-4 years, namely 16.6%. From the Health Profile of the City of Cirebon in 2017 data obtained that diarrheal disease is still a public health problem in the City of Cirebon. Diarrhea is still the 10 most common disease in children under five, namely serial number 3. The number of diarrhea sufferers in children under five at the Jagasatru Health Center tends to increase. In 2016 there were 310 cases (34.7%) in 2017 there were 314 cases (35.2%) and in 2018 it was 399 (40.14%). The number of diarrhea sufferers is high, which is more than the estimated number of children with diarrhea under five who are treated / served by the Puskesmas by 20%. Based on data from the Cirebon City Health Office, for the Jagasatru Health Center, the coverage of households with PHBS (Clean and Healthy Living)

The results of research in Popayato District, Pohuwato Regency and those carried out in Huta 1 Nagori Bandar Malela Simalungun Regency (Daulay 2018) showed that there was a relationship between mother's knowledge and the application of PHBS. The proportion of poor knowledge is more likely to behave in PHBS less, and those with good knowledge tend to behave well (Lindawati, 2012). Clinically diarrheal disease is caused by 4 groups, namely infection, malabsorption, food poisoning and diarrhea related to the use of antibiotics. However, the occurrence of diarrheal transmission is also strongly influenced by clean and healthy living behaviors including breastfeeding, complementary feeding, use of clean water, washing hands, use of latrines, disposal of baby feces and measles immunization. (Ministry of Health RI, 2013)

A person's knowledge and attitude can facilitate the occurrence of behavior in a person or society (Notoatmodjo, 2010). Mother's knowledge plays an important role in realizing healthy living behavior in preventing diarrhea, especially in toddlers. The results of research conducted by Inggawati (2018) at the Banyudono Health Center, Boyolali Regency, there is a relationship between maternal knowledge and the incidence of diarrhea. Mothers who have less knowledge about the incidence of diarrhea are more at risk of having diarrhea in their toddlers than mothers who have good knowledge

METHOD

This study is a quantitative study using a case-control design. The sample consisted of 153 samples of children under five. 51 cases and 102 controls. The data analysis used was univariate, bivariate using chi square and multivariate using multiple logistic regression.

RESULT

Univariate Analysis Results

Description of mother's knowledge and influencing factors in children under five in Indonesia Jagasatru Public Health Center, Cirebon City in 2019

Knowledge	Diarrhea				Total	
	Case		Control			
	n	%	n	%	N	%
Inadequate	34	66,7	25	24,5	59	38,6
Adequate	17	31,4	77	75,5	94	61,4
Total	51	100	102	100	153	100
Age						
Adolescent	8	15,7	18	17,6	26	17
Mature	43	84,3	84	82,4	127	83
Total	51	100	102	100	153	100
Pendidikan						
Low	24	41,7	46	45,1	70	45,8
High	27	52,9	56	54,9	83	54,2
Total	51	100	102	100	153	100
Occupation						
Working	4	7,8	10	9,8	14	9,2
Non Working	47	92,2	92	90,2	139	90,8
Total	51	100	102	100	153	100
Earning						
Low	34	66,7	62	60,8	96	62,7
High	17	33,3	40	39,2	57	37,3
Total	51	100	102	100	153	100
PHBS Behavior						
Bad	27	52,9	42	41,2	69	45,1
Good	24	47,1	60	58,8	84	54,9
Total	51	100	102	100	153	100
PHBS Action						
Bad	39	76,5	37	36,3	76	49,7
Good	12	23,5	65	63,7	77	50,3
Total	51	100	102	100	153	100
Breastfeeding						
No	33	64,7	27	26,5	60	39,2
Yes	18	35,3	75	73,5	93	60,8
Total	51	100	102	100	153	100
CTPS						
No	43	84,3	33	32,4	76	49,7
Yes	8	15,7	69	67,7	77	50,3
Total	51	100	102	100	153	100
Bathroom						
Inadequate	18	35,3	23	22,5	41	26,8
Adequate	33	64,7	79	77,5	112	73,2
Total	51	100	102	100	153	100
Drinking Water						
Packed	11	21,6	5	4,9	16	10,5
Boiled	40	78,4	97	95,5	137	89,5
Total	51	100	102	100	153	100
Littering						
Careless	7	13,7	3	3,0	10	6,6
Tidy	43	86,0	98	97	141	93,4
Total	51	100	102	100	153	100
Measles Imun.						
No	14	25,7	9	8,8	23	15,0
Yes	37	72,5	93	91,2	130	85,0
Total	51	100	102	100	153	100

5.2. Bivariate Analysis
The relationship between the incidence of diarrhea in children under five at the Jagasatru Public Health Center, Cirebon City in 2019

Independent Variable	Diarrhea		Non Diarrhea		P value	OR (95% CI)
	n	%	n	%		
PHBS Knowledge						
Bad	34	66,7	25	24,5	<0,001	6,16 (2,94-12,86)
Good	17	33,3	77	75,5		
Mother Age						
Adolescent	8	15,7	18	17,6	0,939	0,868 (0,349-2,158)
Mature	43	84,3	84	82,4		
Education						
Low	24	41,7	46	45,1	0,954	1,08 (0,551-2,123)
High	27	52,9	56	54,9		
Mother Occupation						
Working	4	7,8	10	9,8	0,775	0,783 (0,233-2,630)
Non Working	47	92,2	92	90,2		
Family Earning						
Low	34	66,7	17	33,3	0,595	1,290 (0,638-2,611)
High	17	33,3	40	39,2		
Action PHBS						
Kurang	39	76,5	37	36,3	<0,001	5,7 (2,66-12,24)
Baik	12	23,5	65	63,7		
Breastfeeding						
Yes	33	64,7	27	26,5	<0,001	5,093 (2,470-10,498)
No	18	35,3	75	73,5		
CTPS						
No	43	84,3	33	32,4	<0,001	11,23 (4,75-26,59)
Yes	8	15,7	69	67,6		
Drinking Water						
Packed	11	21,6	5	4,9	0,003	5,3 (1,558-9,811)
Boiled	40	78,4	97	95,1		
Bathroom						
Inadequate	18	35,3	23	22,5	0,138	1,87 (0,895-3,921)
Adequate	33	64,7	79	77,5		
Littering						
Careless	7	13,7	3	3,0	0,016	5,31 (0,132-21,54)
Tidy	43	86,0	98	97,0		
Measles Immunization						
No Immunization	14	25,7	9	8,8	0,005	3,910 (1,558-9,811)
Immunization	37	72,5	93	91,2		

From the bivariate analysis table above, it was found that the significant variable relationship with the incidence of diarrhea in children under five was mother's knowledge (p value < 0.001, OR 6.16, 95%, CI 2.94-12.86), PHBS measures (p value < 0.001, OR 5.07, 95% CI 2.66-12.24), exclusive breastfeeding (p value < 0.001, OR 5.09, 95%, CI, 2.470-10.498); CTPS (p value < 0.001, OR 11.23, 95%, CI 4.75-26.59) drinking water treatment (p value < 0.003, OR 5.3, 95%, CI 1.558-9.811); waste treatment (p value < 0.001, OR 0.016, 95%, CI 0.132-21.54); and measles immunization (p value 0.005, OR 3.9, 95%, CI 1.558-9.811). For details, see the table below:

Multivariate analysis results

The results of multivariate analysis showed that the OR of the drinking water treatment variable was more dominant, with an OR of 14.66, meaning that mothers of children under five who used bottled drinking water had a 14.66 greater risk of diarrhea than drinking water that was boiled until it boiled first, after being controlled with variables of PHBS knowledge, drinking water treatment, family latrines and PHBS knowledge, waste management, measles immunization. It was concluded that the most dominant variable with the incidence of diarrhea in children under five in this study was drinking water treatment. Drinking water treatment, mother's knowledge and hand washing with soap contributed 52.8% to the occurrence of diarrhea in toddlers.

DISCUSSION

The Relationship between PHBS Knowledge and the Incidence of Diarrhea in Toddlers at the Jagasatru Public Health Center, Cirebon City in 2019 The results of the univariate analysis of this study obtained that data on knowledge of low PHBS in the group of toddlers with diarrhea was 66.7% while 24.5% in the group of toddlers did not have diarrhea. This means that there is a higher proportion of children under five experiencing diarrhea in mothers with low knowledge than in well-educated mothers. The results of the chi square test obtained a p value of 0.001 so that it can be concluded that there is a significant relationship between knowledge of PHBS and the incidence of diarrhea in toddlers, which means that there is a difference in the proportion of diarrhea events between poor knowledge and good knowledge. The OR value of 6.16 means that the knowledge of mothers who have less risk of experiencing diarrhea is 6.16 times greater than that of mothers who have sufficient knowledge. The results of the multivariate analysis in this study showed that the knowledge variable was also significant with the incidence of diarrhea with a p value of 0.001 and or 11.425. This means that mother's knowledge is related to the incidence of diarrhea in children under five.

This is in accordance with research conducted by Warma (2008) which states that the level of knowledge of mothers is significantly related to the incidence of diarrhea, from the results of the analysis, it is found that mothers who have a high level of knowledge are 46.5% and mothers with moderate levels of knowledge are 53.5%. Research conducted by Pravita Fitri Inggawati (2018) there is a relationship between mother's knowledge and the incidence of diarrhea in toddlers with an OR of 2.87, meaning that mothers with low knowledge have a 2.87 times greater risk of diarrhea in their toddlers than mothers with good knowledge. The opinion of the researcher that the difference in the proportion of diarrhea events between mothers who have less knowledge and good knowledge is because mothers who have good knowledge will be better able to apply ways of preventing diarrhea in caring for their children under five. The results of the multivariate analysis also showed that there was a relationship between the level of knowledge and the incidence of diarrhea.

Relationship between maternal age, mother's education, mother's occupation and family income with the incidence of diarrhea in children under five at the Jagasatru Public Health Center, Cirebon City in 2019

In this study, it was found that there was no significant relationship between maternal age and the incidence of diarrhea in children under five, the mother's employment relationship was also not significant. Diarrhea in toddlers. The results of the chi square test between maternal income and diarrhea under five were also found to be insignificant, obtained a p value of 0.595 so that it can be concluded that there is no significant relationship between family income and the incidence of diarrhea in children under five. The results of the chi square test between family income

The incidence of diarrhea was also obtained with p value of 0.595 so that it can be concluded that there is no significant relationship between family income and the incidence of diarrhea in children under five.

The relationship between PHBS actions and the incidence of diarrhea in children under five at the Jagasatru Public Health Center, Cirebon City in 2019

The results of the univariate analysis showed that PHBS action data was lacking in the diarrheal toddler group, which was 76.5%, while 36.3% in the non-diarrhoeal group. The results of the chi square test obtained p value <0.001 so that it can be concluded that there is a significant relationship between PHBS actions and the incidence of diarrhea in toddlers. This means that there is a difference in the proportion of toddlers experiencing diarrhea in mothers with low PHBS actions than those with good PHBS. Mothers who have low PHBS are 5.7 times more likely to have children under five years old than those with good behavior. This study is in accordance with research conducted by Adisasmito (2007) which shows that the aspects of mother's behavior show that clean living behavior by mothers has a significant relationship in preventing diarrheal disease in infants and toddlers. The opinion of researchers by doing clean and healthy living habits will be able to prevent the transmission of diarrheal diseases in children under five. Thus, the risk of experiencing diarrhea in mothers with good behavior is lower than those with poor behavior.

The relationship between exclusive breastfeeding and the incidence of diarrhea in children under five at the Jagasatru Public Health Center, Cirebon City in 2019

The Relationship between Family Toilets and Diarrhea in Toddlers at the Jagasatru Public Health Center, Cirebon City in 2019.

The results of the univariate analysis showed that the proportion of latrines that met the requirements was 73.2%, and those that still did not meet the requirements were 26.8%. The results of the bivariate analysis obtained that data on families whose latrines did not meet health requirements in the group of toddlers with diarrhea was 35.5% while 22.5% in the group of children under five had no diarrhea. The results of the chi square test obtained a p value of 0.138 so it can be concluded that there is no significant relationship between family latrines and the incidence of diarrhea in toddlers. The results of this study are different from research conducted by Selviana and Wike Widowati (2015) which shows that families who use latrines that do not meet the requirements, their children under five have a 2.72 times greater risk of diarrhea than those who have latrines that meet the requirements. The researcher's opinion is that most of the respondents already have latrines so that the incidence of diarrhea in children under five in this study is not due to physical ownership of latrines, but tends to be due to other behavioral factors such as the habit of washing the hands of mothers of toddlers.

The Relationship between Drinking Water Treatment and the Incidence of Diarrhea in Toddlers at the Jagasatru Public Health Center, Cirebon City in 2019

In the results of this study, data obtained from drinking water treatment that did not meet the requirements in the group of toddlers with diarrhea was 21.6% while 4.9% in the group of toddlers did not have diarrhea. The results of the chi square test obtained a p value of 0.004 so that

it can be concluded that there is a significant relationship between drinking water treatment and the incidence of diarrhea in children under five, which means that there is a difference in the proportion of diarrhea cases between those who use bottled water and those who use boiled drinking water first. The results of the chi square test also obtained an OR value of 5.3 meaning that the treatment of bottled drinking water turned out to be 5.3 times greater risk of experiencing diarrhea compared to using boiled drinking water. The results of the multivariate analysis also showed that the dominant variable causing diarrhea seen from its OR in this study was the use of drinking water, with an OR of 14.6 and a contribution to the occurrence of diarrheal disease of 8.3%. This research is in line with Budi's research (2017), it is known that there is a relationship between the mother's habit of cooking drinking water with the incidence of diarrhea in toddlers. This is consistent with several other studies which state that the behavior of cooking drinking water is a risk factor for diarrhea with an OR value of 168, meaning that mothers who do not boil water for drinking have 168 times more risk of developing diarrhea than mothers who cook water for drinking. Multivariate analysis of the last model, one of the significant variables is drinking water treatment. The researcher's opinion is that drinking water treatment activities are very important in preventing diarrhea, so that a mother can use boiled drinking water to prevent herself and her child from diarrhea.

Relationship between Garbage Disposal Sites and Diarrhea in Toddlers at Jagasatru Public Health Center, Cirebon City in 2019

The results of the univariate analysis showed that only a small portion of waste was disposed of carelessly, namely 6.6%, and was disposed of at TPS by 93.4%. But in the group of

toddlers with diarrhea there is 13.73% while in the group of toddlers who do not have diarrhea only 3%. The results of the chi square test obtained a p value of 0.016 so that it can be concluded that there is a significant relationship between landfills and the incidence of diarrhea in children under five, which means that there is a difference in the proportion of diarrhea cases between waste disposed of carelessly and disposed of at TPS. The OR value of 5.31 means that waste that is disposed of carelessly has a 5.31 times greater risk of diarrhea in children compared to those who throw garbage into the TPS. This research is in line with Fauzi's (2015) research which states that there is a relationship between waste management and the incidence of diarrhea. Garbage that is not disposed of in its place will cause public health and environmental problems because it becomes a medium for the spread of various diseases, especially cholera, diarrhea, typhus. medium for the proliferation of pathogenic microorganisms, as well as a breeding ground for flies.

The Relationship between Measles Immunization and the Incidence of Diarrhea in Toddlers at the Jagasatru Public Health Center, Cirebon City in 2019

The results of univariate analysis showed that the proportion of children under five who were not immunized against measles was 15%, and 85% had been immunized against measles. Data that were not immunized in the group of children under five with diarrhea were 25.7%, while 8.8% in the group of children under five had no diarrhea. The results of the chi square test obtained p value of 0.005 so that it can be concluded that there is a significant relationship between measles immunization and the incidence of diarrhea in children under five, which means that there is a difference in the proportion of diarrhea events between those who are not immunized and those who are measles immunization. An OR value of 3.9 means that non-immunization has a risk of experiencing diarrhea 3.9 times greater than that of infants who are immunized. The statistical test results obtained a p value = 0.005 which means that there is a significant relationship between measles immunization status and the incidence of acute diarrhea in children. toddler. This study is in accordance with Suraatmatmaja (2007), in toddlers, 1-7% of diarrhea cases are associated with measles, and diarrhea that occurs in measles is generally heavier and lasts longer. Children who have had measles in the previous 4 weeks have a higher risk of developing severe and fatal diarrhea and dysentery (WHO, 2009).

CONCLUSION

a. The description of the incidence of diarrhea in this study, mothers with less knowledge 38.6, adult mothers 83%, mothers not working 92%, low income 62.7%, PHBS actions were not good 49.7%, mothers gave exclusive breastfeeding 60.8% , mothers wash their hands with soap 50.3%, family latrines meet the requirements 73.2%, treatment of drinking water is boiled until it boils 89.5%, littering 6.6% carry out measles immunization 85%.

b. There is a relationship between mother/caregiver PHBS knowledge, PHBS actions, exclusive breastfeeding, CTPS, family latrines, drinking water treatment, waste disposal and measles immunization with the incidence of diarrhea in children under five at the Jagasatru Health Center in 2019

c. The dominant variable related to the incidence of diarrhea in children under five is the treatment of drinking water with an OR of 14.6 (95% CI 2.615-82.193) meaning that families drinking bottled water have a risk of having children under five with diarrhea 14.6 times greater than using drinking water. which has been boiled until boiling first. Drinking water treatment, mother's knowledge and hand washing with soap contributed 52.8% to the occurrence of diarrhea in toddlers.

SUGGESTION

a. For the Diarrhea Control Program, the Ministry of Health Improves health promotion efforts in preventing diarrheal diseases, through increasing household PHBS. Provide IEC media both electronic, social media, print media containing information on diarrhea prevention.

b. For the Cirebon City Health Office and the Jagasatru Health Center to increase health promotion efforts through PHBS to prevent diarrheal diseases. Efforts can be made by disseminating information on diarrhea prevention through social media, procuring KIE media in the form of flipcharts, leaflets to provide information to the public and carrying out periodic laboratory examinations of water samples at drinking water refill depots, in collaboration with related laboratories.

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