Original Article

The Relationship Of Clean And Healthy Behavior (PHBS) In The Household Arrangements With The Occurrence Of Diarrhea At The Age Of 1-24 Months

Santi Moh. Arif[1]

[1] Nursing STIKES Surya Mitra Husada Kediri

ARTICLE INFO

Article History:
Submit, 11 Jan 2020
Revised, 31 Mar 2020
Accepted, 21 Apr 2020
Available online, 30 June 2020

Keywords:
PHBS, Diarrhea, Infants.

ABSTRACT

Background: *Poor clean and healthy life (PHBS) can cause many causes of disease, one of which is diarrhea. Diarrhea in infants and toddlers can be very dangerous because it can cause death. Death is caused by a lack of a lot of fluid that often coming out with feces. The purpose of this research is knowing the relationship of clean and healthy behavior (PHBS) in the household arrangements with the occurrence of diarrhea at the age of 1-24 months in Muara Besar village the work area of Ogodeide public health center.*

The design used in the study was cross sectional. The population was all mothers with infants aged 1-24 months who had diarrhea in the last 3 months. The sample size was 31 respondents using Accidental sampling technique. Independent variables of the research is PHBS. The dependent variable is the incidence of diarrhea. Data was collected using a questionnaire, then the data were analyzed using the Chi Square test, with a significance level of α ≤ 0.05.

The results of the study found that most respondents had PHBS Statification I levels of 13 respondents (41.9%), and the incidence of diarrhea was 24 respondents (77.4%). The Statistical tests using Chi Square obtained p-value=0,000 with α< 0.05, which means that H0 is rejected and H1 is accepted so it is can be interpreted that there was a relationship between Clean and Healthy Life Behavior (PHBS) in the Household arrangements with diarrhea at 1-24 months Muara Besar Village, the woeking area of the Ogodeide public Health Center.

Clean and Healthy behavior prevents unhealthy conditions and one of them affects had impact on the incidence of diarrhea in children. Poor family PHBS can cause diarrhea, the better PHBS, the health family will be better and there will be no diarrhea in children.

Corresponding Author Contact:
Santi Moh. Arif
Students Undergraduate of Nursing
STIKES Surya Mitra Husada Kediri
Email: santimoharif@gmail.com

Introduction

Diarrhea is still a world health problem, especially in developing countries. In Indonesia diarrhea is one of the main problems of public health. This is due to the still high rates of morbidity and many deaths, and often lead to outbreaks. Diarrhea in infants and toddlers (under five years) can be very dangerous because it can cause death. Death is caused by a lack of fluids that often come out with feces.

According to the Central Statistics Agency, the National Population and Family Planning Agency and the Ministry of Health (2008), dehydration due to diarrhea is the main cause of death in infants and children and this condition can be overcome by oral rehydration. The management of diarrheal disease at home by parents seems not optimal, this is indicated by the still large number of diarrhea patients who come to hospitals with moderate and severe dehydration.

Diarrhea ranks fifth in 10 major diseases in outpatients in hospitals and ranks first in hospitalized patients (Adisasmito, 2007). In Indonesia in 2016 there are 2.5 million more diarrhea handled by health workers (Dinkes, 2017). Riskesdas 2007 the largest proportion of causes of infant mortality is Diarrhea, which is 31.4%. Tolitoli District has an incidence of diarrhea at the age of 1-24 months reaching 1,922 cases (P2PL of the District Health Office of Tolitoli 2017), and the Ogodeide District Health Center in Tolitoli with the incidence of diarrhea reaching 112 cases at the age of 1-24 months. For Muara village, the incidence of diarrhea was 29 cases and there were 1 under-five mortality and 1 infant death (P2 Diarrhea, Ogodeide Community Health Center, Tolitoli District 2017).

Tolitoli District ranks 7th out of 11 Regencies, namely only 35.33% of households that have PHBS (Profile of Office of Kes.Sul-Teng), for the Ogodeide Community Health Center Tolitoli Regency there are 52% of households with PHBS and especially in Muara Besar Village stairs with PHBS are 48.5%, Latrine Use 48%, Use of 47% clean water and hand washing 41% (Promos Ogodeide Health Center Tolitoli District 2017). From the results of preliminary studies or preliminary data collection conducted in the village of Muara Besar, the working area of the Ogodeide Community Health Center in Tolitoli Regency was found to have an average of 3 incidents of diarrhea at the age of 1-24 months (Primary Health Center Data, 2017).

Diarrhea is an environment-based disease that is still the biggest health problem for Indonesians and is a disease that often occurs in children under five. The cause of diarrhea that is a problem is the still poor condition of basic sanitation (Sulistyowati, 2004), such as toilet sanitation, clean water facilities (SAB), sewerage (SPAL), water quality, and housing conditions. Basic home sanitation is a public health effort that focuses on monitoring various environmental factors that affect or may affect the degree of human health. The source of drinking water is one of the sanitation facilities related to the incidence of diarrhea. Most infectious germs that cause diarrhea are transmitted through the faecal - oral route. Using contaminated drinking water, can be one of the risk factors for diarrhea in infants. Water may have been polluted from the source or when storing it at home, such as being accommodated in a water reservoir (Ministry of Health, 2015). This can affect the baby's occurrence of diarrhea and the more difficult to overcome.

Diarrhea in infants can be prevented by clean and healthy hygiene behavior. A person's healthy behavior is related to his actions in maintaining and improving his health status, including measures for preventing disease, personal hygiene, choosing healthy and nutritious foods, personal hygiene and environmental sanitation). Diarrhea if you don't get treatment right away will cause dehydration which can lead to death. The behavior of clean and healthy life (PHBS) is essentially a preventive behavior by individuals or families of various diseases. One of the targets of the application of the PHBS program is on the household order, which aims to improve the family health status and work productivity of each family member (Depkes 2017).

In the family, especially in rural areas the role of a housewife is very large compared to a father or child. The habit of a housewife can easily be used as an example for other family members. A mother who normally behaves in a healthy life, her family will do the same and vice versa. Family members who have a clean and healthy lifestyle will form healthy lifestyles, healthy environments and healthy families, which will ultimately create healthy communities (Hari Iskriyanti, 2002). Based on this background, the researcher was interested in researching with the title of Relationship between Clean and Healthy Life Behavior (PHBS) in Household Arrangements with the Occurrence of Diarrhea in Ages 1-24 Months in Muara Besar Village Working Area of Ogodeide Health Center Tolitoli District.

Method

design used in the study was cross sectional. Population is All Mothers with infants aged 1-24 months who have suffered diarrhea in the last 3 months. The sample size was 31 respondents using *Accidental sampling technique*. Independent variable of research is PHBS. The dependent variable is the incidence of diarrhea. Data was collected using a questionnaire, then the data were analyzed using Chi Square test, with a significance level of $\alpha \leq 0.05$.

Results

Table 1. Frequency Distribution of Respondent Characteristics by Age in Infants Aged 1-24 Months in Muara Besar Village Ogodeide District Tolitoli Health Center working area on 30 May-29 June 2018 (n = 31)

No	Age	Frequency	Percentage
1	17-25 years	11	35.5
2	26-35 years	13	41,9
3	36-45 years	7	22,6
	Total	**31**	**100**

The results of the study showed that most of the respondents aged 26-35 years were 13 respondents (41.9%), and those who at least 36-45 years old as many as 7 respondents (22.6%).

Table 2. Distribution of Frequency Characteristics of Respondents by Education For Infants Aged 1-24 Months in Muara Besar Village Working area of Ogodeide Health Center Tolitoli Regency on 30 May-29 June 2018 (n = 31)

No	Education	Frequency	Percentage
1	SD	6	19.4
2	SMP	12	38.7
3	SMA	13	41.9
	Total	**31**	**100**

The results of the study showed that at most of the respondents had high school education as many as 13 respondents (41.9%), and the least were having elementary education as many as 6 respondents (19, 4%).

Table 3. Distribution of Frequency of Characteristics of Respondents by Occupation in Infants Aged 1-24 Months in Muara Besar Village Working area of Ogodeide Health Center Tolitoli Regency on 30 May-29 June 2018 (n = 31)

No	Occupation	Frequency	Percentage
1	Employee	8	25,8
2	Private	7	22.6
3	Not working	16	51.6
	Total	**31**	**100**

The results of the study showed that at most 16 respondents (51.6%) did not work, and 7 respondents (22.6%) had the least work in the private sector.

C. Characteristics of Variables

The results of the study showed that the data distribution of research variables was handwashing and infection.

Table 4. Distribution of Frequency of Respondents based on PHBS for Mothers with Infants Aged 1-24 Months in Muara Besar Village Working area of Ogodeide Health Center in Tolitoli Regency on 30 May-29 June 2018 (n = 31)

No	PHBS	Frequency	Percentage
1	Stratification I	13	41, 9
2	Stratification II	10	32.3
3	Stratification III	5	16.1
4	Stratification IV	3	9.7
	Total	**31**	**100**

The results of the study showed that at most respondents had the level of PHBS Statification I as many as 13 respondents (41.9%), and at least have a level of PHBS Statification IV of 3 respondents (9.7%).

Table 5. Frequency Distribution of Respondents based on Diarrhea Occurrence in Mothers with Babies Aged 1-24 Months in Muara Besar Village Working area of

Ogodeide Health Center Tolitoli Regency on 30 May-29 June 2018 (n = 31)

No	Diarrhea Occurrence	Frequency	Percentage
1	No Diarrhea	7	22.6
2	Diarrhea	24	77.4
	Total	**31**	**100**

The results of the study showed that at most 24 respondents (77.4%) had the incidence of diarrhea, and at least 7 had no diarrhea (22.6%).

Table 6. Cross Tabulation between PHBS and the incidence of Diarrhea in Mothers with Babies Aged 1-24 Months in Muara Besar Village Working area of Ogodeide Health Center Tolitoli District on 30 May-29 June 2018 (n = 31)

			Diare		Total
			Diare	Tidak Diare	
PHBS	Stratifikasi I	Count	13	0	13
		% of Total	41,9 %	,0%	41,9%
	Stratifikasi II	Count	10	0	10
		% of Total	32,3 %	,0%	32,3%
	Stratifikasi III	Count	1	4	5
		% of Total	3,2%	12,9 %	16,1%
	Stratifikasi IV	Count	0	3	3
		% of Total	,0%	9,7%	9,7%
Total		Count	24	7	31
		% of Total	77,4 %	22,6 %	100,0 %

Results The study found that most respondents had PHBS Stratification I levels with 13 diarrhea (41.9%) occurrence of diarrhea.

Table 7. Cross Tabulation between PHBS and Age in Mothers with Babies Aged 1-24 Months in Muara Besar Village Working area of Ogodeide Health Center in Tolitoli Regency on 30 May-29 June 2018 (n = 31)

			Umur			Total
			17-25 tahun	26-35 tahun	36-45 tahun	
PHBS	Stratifikasi I	Count	5	5	3	13
		% of Total	16,1 %	16,1 %	9,7%	41,9 %
	Stratifikasi II	Count	4	4	2	10
		% of Total	12,9 %	12,9 %	6,5%	32,3 %
	Stratifikasi III	Count	1	3	1	5
		% of Total	3,2%	9,7%	3,2%	16,1 %
	Stratifikasi IV	Count	1	1	1	3
		% of Total	3,2%	3,2%	3,2%	9,7%
Total		Count	11	13	7	31
		% of Total	35,5 %	41,9 %	22,6 %	100,0 %

The results of the study showed that most respondents had PHBS Stratification I with age 17 -25 and 26-35 years as many as 5 respondents (16.1%).

Table 8. Cross Tabulation between PHBS and Education in Mothers with Infants Aged 1-24 Months in Muara Besar Village Working area of Ogodeide Health Center Tolitoli District on 30 May-29 June 2018 (n = 31)

			Pendidikan			Total
			SD	SMP	SMA	
PHBS	Stratifikasi I	Count	3	6	4	13
		% of Total	9,7%	19,4 %	12,9 %	41,9 %
	Stratifikasi II	Count	1	4	5	10
		% of Total	3,2%	12,9 %	16,1 %	32,3 %
	Stratifikasi III	Count	1	1	3	5
		% of	3,2%	3,2%	9,7%	16,1

		Total				%
	Stratifikasi IV	Count	1	1	1	3
		% of Total	3,2%	3,2%	3,2%	9,7%
Total		Count	6	12	13	31
		% of Total	19,4 %	38,7 %	41,9 %	100,0 %

The results of the study showed that most respondents had PHBS Stratification I levels with 6 junior high school education (19.4%) .

Table 9. Cross Tabulation between PHBS and Employment for Mothers with Infants Aged 1-24 Months in Muara Besar Village Working area of Ogodeide Health Center Tolitoli District on 30 May-29 June 2018 (n = 31)

			Pekerjaan			Total
			Karyawan	Swasta	Tidak bekerja	
PHBS	Stratifikasi I	Count	4	2	7	13
		% of Total	12,9%	6,5%	22,6 %	41,9 %
	Stratifikasi II	Count	2	2	6	10
		% of Total	6,5%	6,5%	19,4 %	32,3 %
	Stratifikasi III	Count	0	2	3	5
		% of Total	,0%	6,5%	9,7%	16,1 %
	Stratifikasi IV	Count	2	1	0	3
		% of Total	6,5%	3,2%	,0%	9,7%
Total		Count	8	7	16	31
		% of Total	25,8%	22,6 %	51,6 %	100,0 %

The results of the study showed that most respondents had PHBS Stratification I levels with no work as many as 7 respondents (22.6%).

Table 10. Cross Tabulation between Diarrhea and Age in Mothers with Infants Aged 1-24 Months in Muara Besar Village Ogodeide Tolitoli District Health Center working area on 30 May-29 June 2018 (n = 31)

			Umur			Total
			17-25 tahun	26-35 tahun	36-45 tahun	
Diare	Diare	Count	9	9	6	24
		% of Total	29,0 %	29,0 %	19,4 %	77,4%
	Tidak Diare	Count	2	4	1	7
		% of Total	6,5%	12,9 %	3,2%	22,6%
Total		Count	11	13	7	31
		% of Total	35,5 %	41,9 %	22,6 %	100,0 %

The results of the study showed that most respondents with diarrhea aged 17-25 and 26-35 year as many as 9 respondents (29%).

Table 11. Cross tabulation between diarrhea and education in mothers with infants aged 1-24 months in Muara Besar Village Working area of Ogodeide Health Center in Tolitoli Regency on 30 May-29 June 2018 (n = 31)

			Pendidikan			Total
			SD	SMP	SMA	
Diare	Diare	Count	5	10	9	24
		% of Total	16,1 %	32,3 %	29,0 %	77,4%
	Tidak Diare	Count	1	2	4	7
		% of	3,2%	6,5%	12,9	22,6%

		Total			%	
Total		Count	6	12	13	31
		% of Total	19,4 %	38,7 %	41,9 %	100,0 %

The results of the study showed that most respondents with Diarrhea with junior high school education were 10 respondents (32.3%).

Table 12. Cross Tabulation of Diarrhea and Occupation in Mothers with Babies Aged 1-24 Months in Muara Besar Village Working area of Ogodeide Health Center Tolitoli Regency on 30 May-29 June 2018 (n = 31)

			Pekerjaan			Total
			Karyawan	Swasta	Tidak bekerja	
Diare	Diare	Count	6	5	13	24
		% of Total	19,4%	16,1 %	41,9 %	77,4 %
	Tidak Diare	Count	2	2	3	7
		% of Total	6,5%	6,5%	9,7%	22,6 %
Total		Count	8	7	16	31
		% of Total	25,8%	22,6 %	51,6 %	100,0 %

The results of the study showed that at most 13 respondents (41.9%) did not work with diarrhea with no work.

Table 13.Test Results

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26,424[a]	3	,000
Likelihood Ratio	28,114	3	,000
Linear-by-Linear Association	20,244	1	,000
N of Valid Cases	31		
a. 6 cells (75,0%) have expected count less than 5. The minimum expected count is ,68.			

The results of statistical tests obtained *p-value*= 0,000 with α <0,05, which means that H0 is rejected and H1 is accepted so that it can be interpreted that there is a relationship between Clean and Healthy Life Behavior (PHBS) in Household Arrangements with Diarrhea at 1-24 Months Muara Besar Village Working area of Ogodeide Health Center in Tolitoli Regency.

Discussion

The results of statistical tests obtained *p-value*= 0,000 with α <0,05, which means that H0 is rejected and H1 is accepted so that it can be interpreted that there is a relationship between Clean and Healthy Life Behavior (PHBS) in Household Arrangements with Diarrhea at 1-24 Months In Muara Besar Village, the working area of the Ogodeide Health Center in Tolitoli Regency.

Clean and Healthy Life Behavior (PHBS) is a manifestation of a healthy paradigm in individual cultures. Healthy-oriented families and communities aim to improve, maintain and protect their health, both physically, mentally, spiritually and socially (Ministry of Health, 2012). Diarrhea in infants can be prevented by clean and healthy hygiene behavior. A person's healthy behavior is related to his actions in maintaining and improving his health status, including measures for preventing disease, personal hygiene, choosing healthy and nutritious foods, personal hygiene and environmental sanitation). PHBS and family health are efforts to prevent diarrhea in children (Kusmasari, 2015). Diarrhea if you don't get treatment right away will cause dehydration which can lead to death. The behavior of clean and healthy life (PHBS) is essentially a preventive behavior by individuals or families of various diseases. One of the targets of the application of the PHBS program is on the household order, which aims to improve the family health status and work productivity of each family member (Depkes 2017).

Based on the results of the study, it was found that there was a relationship between the behavior of PHBS and the incidence of diarrhea, according to the results of the Kusumaningrum study (2015) that the number of children under five experiencing diarrhea was 36.3%. 58.2% of children under five who were not given exclusive breastfeeding, 70.3% of respondents who used healthy water or did not have PHBS. In accordance with the theory which states that PHBS and family health are efforts to prevent diarrhea in children, and prevention in the home through healthy behavior must continue to be improved (Kusmasari, 2015). In the family, especially in rural areas the role of a housewife is very large compared to a father or child (Hari Iskriyanti, 2002). The habit of a housewife can easily be used as an example for other family members. A mother who normally behaves in a healthy life, her family will do the same and vice versa. Family members who have a clean and healthy lifestyle will form healthy lifestyles, healthy environments and healthy families, which will ultimately create healthy communities.

Conclusion

1. The results of the study showed that most respondents had PHBS Statification I levels of 13 respondents (41.9%)
2. The results of the study found that at most 24 respondents did not have diarrhea incidence (77.4%).
3. The results of statistical tests obtained *p-value*= 0,000 with α <0,05, which means that H0 is rejected and H1 is accepted so that it can be interpreted that there is a relationship between Clean and Healthy Life Behavior (PHBS) in Household Arrangements with Diarrhea at 1-24 Months Muara Besar Village Working area of Ogodeide Health Center in Tolitoli Regency.

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