The Relationship Between PHBS with Clean and Healthy Living Behavior with The Incidebce of Diarrhea in Children in The Work Area Penanae Health Center

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| ARTICLE INFO |  | ABSTRACT (10pt) |  |
| Article historyReceivedRevised Accepted |  | Background : Diarrhea is a global problem with the second leading cause of death in children under five years, Diarrhea can last for several days, and can cause the body to lack water and salt which are needed for survival.To determine the relationship between PHBS and the incidence of diarrhea in toddlers 1-5 years in the working area of the Penanae Health Center. Methods :This research method uses quantitative analytical descriptive using a cross sectional approach, the population is mothers with diarrhea in toddlers starting from January-August as many as 110 populations and the number of samples is 52 samples. Result : Based on the results of the study that there were 52 respondents about PHBS exclusive breastfeeding as many as 31 people (59.61%) and those who did not give exclusive breastfeeding, namely as many as 21 people (40.38%), based on PHBS the use of clean water was 30 people (55,76%), and do not use clean water 22 people (44.23%), hand washing behavior is 19 respondents (36.53) and respondents who do not wash their hands are 33 respondents (63.46%), and 34 respondents using healthy latrines (65.38%) and 18 respondents (34.61%) did not use healthy latrines. |  |
| **Keywords**PHBSDiarrheaToddler |  |

# Background

According to the World Health Organization (WHO), diarrheal disease is the second leading cause of death in children under five years of age. Diarrhea can last several days, and can result in a lack of water and salt that is needed for survival. Most children under five who die from diarrhea are due to severe dehydration (WHO, 2012).Diarrhea is a global problem with relatively high morbidity and mortality rates in various countries, especially in developing countries and is one of the main causes of high child morbidity and mortality in the world. In general, it is estimated that 10 million children under the age of 5 years who die every year around 20% of children die due to diarrhea (Kurniati, 2013).

The prevalence of diarrhea in Indonesia according to the characteristics recorded as many as 18,225 (9%) children with diarrhea in the age group < 1 year, 73,188 (11.5%) children with diarrhea in the age group 1-4 years, 182,338 (6.2%) children with diarrhea in the age group aged 5-14 years, and as many as 165,644 (6.7%) children with diarrhea in the 15-24 year age group (Ministry of Health, 2019).According to the West Nusa Tenggara Province Profile Data, the high coverage of diarrhea cases that occurred in 2016 was 11,877 cases and increased to 22,699 cases of diarrhea in 2017 or an increase of 91.08% of the coverage of diarrhea cases in District/Bota in NTB Province.Diarrhea can be fatal and become a dangerous disease. so that it can cause death and cause extraordinary events (NTB Health Office, 2018).

Based on data obtained from the Bima City Health Office, the high incidence of diarrhea in toddlers in 2019 reached 1830 toddlers, and in 2020 the incidence of diarrhea decreased to 1855 toddlers. Based on data obtained from the Bima City Health Office, the highest incidence of diarrhea was obtained from the Penanae Health Center in 2019 as many as 517 children under five, and in 2020 the incidence of diarrhea increased to 545 children under five, and in 2021 the data obtained from January to August was as many as 110 toddlers with diarrhea (Dikes Kota Bima, 2021).

Clinical causes of diarrhea can be grouped into six groups, namely due to infection, malabsorption, allergies, poisoning, immunodeficiency, and general causes of diarrhea, which are influenced by inadequate supply of clean water, water contaminated with feces, inadequate hygiene facilities, and waste disposal sites. those who are not hygienic in environmental hygiene, do not have the habit of washing their hands both before and after carrying out activities, and inadequate food hygiene. Another cause of diarrhea is the mother's lack of knowledge about Clean and Healthy Behavior (Ginting, 2018).Maternal factors play a role in the incidence of diarrhea in toddlers. If a toddler has diarrhea, the actions that the mother takes will determine the course of the disease. These actions are influenced by various things, one of which is knowledge (IDAI, 2015).

The impact of diarrhea in toddlers is that it can cause children to be fussy, vomiting, hot, severe dehydration, stunted child growth, can cause death of toddlers due to dehydration and lack of water and salt in the body. And efforts to handle the incidence of diarrhea, namely increasing mother's knowledge in diarrhea management in toddlers through health education or health promotion, health promotion or health education are not only able to make someone aware in terms of providing and increasing knowledge in the health sector but also an effort that is able to connect with there is a change in a person's behavior, besides that knowledge can also change a person's attitude towards a certain thing. (Ardayani, 2015).

Special efforts made by mothers in handling diarrhea are providing first aid by giving homemade ORS with a mixture of salt solution, and giving guava leaves to toddlers, giving guava leaves directly to toddlers to chew directly and some cooking guava leaves with the water is then drunk, but if the diarrhea suffered by the toddler still persists then the mother is recommended to take her toddler for treatment to the midwife or the nearest health center for further treatment and care.

Efforts to prevent and control cases of diarrhea by health workers are by giving ORS, using infusions, outreach to the community with the aim of increasing clean and healthy living behavior (PHBS) in daily life, because in general diarrheal disease is closely related to sanitation hygiene, and clean and healthy living behavior, (Ministry of Health, 2017). Based on some of the data obtained above, the researchers are interested in conducting a study with the title "The Relationship of Clean and Healthy Life Behavior (PHBS) with the incidence of diarrhea in children under five in the work area of ​​the Penanae Health Center.

# Methods

This type of research is a quantitative research with the correlation method by connecting the independent variable Clean and Healthy Life Behavior (PHBS) with the dependent variable the incidence of diarrhea in children under five, to identify "the relationship between clean living behavior and the incidence of diarrhea in toddlers". The research design used in this study is descriptive quantitative research with a Cross Sectional approach, namely an approach that is carried out by observing or observing data at the same time and descriptive research and data obtained from observations, interviews in the form of facts in the field, research subjects are only observed only once and confirmation is done on the independent variable and the dependent variable, (Notodmojo, 2017).

The population in this study were all mothers who had toddlers 1-5 years old who had diarrhea and the number was 110 children under five who had diarrhea.The sample is part of the number and characteristics possessed by the population, the number of samples obtained is as many as 52 samples. The sampling technique used in this study is simple random sampling or what is commonly referred to as a simple random technique.

# Results

3.1 Univariant Analysis

1. frequency distribution of respondents based on exclusive breastfeeding.

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| Exclusiv Breastfeeding Frequency Percent(%) |
| Exclusive Breastfeeding 31 59,61%Not Exclusive Breastfeeding 21 40,38% |
| Total 52 99,99%  |

Based on the distribution of exclusive breastfeeding respondents, 31 people (59.61%) did not give exclusive breastfeeding and 21 people (40.38%).And following the results of the chi-square test between exclusive breastfeeding, it is known that the value = 0.000 (<0.05) which means that there is a relationship between PHBS of exclusive breastfeeding and the incidence of diarrhea in toddlers

1. distribution of the frequency of respondents based on the use of clean water.

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| --- |
| Use of clean water Frequency Percent(%) |
| Use clean water 30 55,76%Do not use clean water 22 44,23% |
| Total 52 99,99%  |

Based on the frequency of respondents who use clean water as many as 30 people (55,76%), and 22 people do not use clean water (44.23%).Following are the results of the chi-square test between the use of clean water and the incidence of diarrhea, namely the value = 0.001 (> 0.05), which means that there is a relationship between PHBS of exclusive breastfeeding and the incidence of diarrhea in toddlers

1. frequency distribution of respondents based on hand washing behavior

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| --- |
| Healthy use of latrines Frequency Percent(%) |
| Use a healthy latrine 34 65,38%Not using healthy latrines 18 34,61% |
| Total 52 99,99%  |

Based on the results of respondents using healthy latrines as many as 34 people (65.38%) and as many as 18 respondents (34.61%) whose use of healthy latrines is not good.The results of the Chi-square test are 0.00 (<0.05), which means that there is a relationship between the use of healthy latrines and the incidence of diarrhea.

3.2. Bivariate Analysis

The relationship between PHBS and the incidence of diarrhea in toddlers by performing the Chi-Square Test can be seen as follows:

1. Cross Tabulation of the Relationship of Exclusive Breastfeeding with the incidence of diarrhea

|  |  |  |  |
| --- | --- | --- | --- |
| Exclusive Breastfeeding | Incidence of Diarrhea | Total | P Value |
| Diarrhea | No Diarrhea |
| Exclusive Breastfeeding | 5 | 26 | 31 |  |
| Not Exclusive Breastfeeding | 17 | 4 | 21 | 0,000 |
| Total | 22 | 30 | 52 |  |

And following the results of the chi-square test between exclusive breastfeeding, it is known that the value = 0.000 (<0.05) which means that there is a relationship between PHBS of exclusive breastfeeding and the incidence of diarrhea in toddlers.

1. Cross tabulation on the relationship between using clean water and the incidence of diarrhea

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| --- | --- | --- | --- |
|  Use of clean water | Incidence of Diarrhea | total | P Value |
| Diarrhea | No Diarrhea |
| Use clean water | 7 | 23 | 30 |  |
| Do not use clean water | 15 | 7 | 22 | 0,001 |
| Total | 22 | 30 | 52 |  |

The following are the results of the chi-square test between the use of clean water and the incidence of diarrhea, namely the value = 0.001 (<0.05) which means that there is a relationship between PHBS using clean water and the incidence of diarrhea in toddlers.

1. Cross tabulation on the relationship between hand washing and the incidence of diarrhea

|  |  |  |  |
| --- | --- | --- | --- |
| Washing hands | Diarrhea Incidence | total | P Value |
| Diarrhea | No Diarrhea |
| Washing hands | 2 | 17 | 19 |  |
| Not washing hands | 20 | 13 | 33 | 0,000 |
| Total  | 22 | 30 | 52 |  |

The results of the Chi-square test between the use of clean water and the incidence of diarrhea are p value = 0.000 (<0.05) which means that there is a relationship between PHBS washing hands with the incidence of diarrhea in toddlers.

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| --- | --- | --- | --- |
|  Healthy use of latrines | Diarrhea Incidence | total | P Value |
| Diarrhea | No Diarrhea |
|  Use a healthy latrine  | 6 | 28 | 34 |  |
| Not using healthy latrines | 16 | 2 | 18 | 0,000 |
| Total | 22 | 30 | 52 |  |

1. Cross-tabulation on the relationship between the use of healthy latrines and the incidence of diarrhea

he results of the Chi-square test between the use of healthy latrines and the incidence of diarrhea are p value = 0.000 (<0.05) which means that there is a relationship between PHBS washing hands with the incidence of diarrhea in toddlers.

# Discussion

4.1. Discussion on the relationship between exclusive breastfeeding and the incidence of diarrhea in toddlers

Based on the results of the cross tabulation with 52 mothers as respondents, 31 (59.61%) mothers who gave exclusive breastfeeding and it was known that 5 had diarrhea and 26 toddlers did not have diarrhea, and 21 mothers who did not give exclusive breastfeeding ( 40.38%) and it is known that 17 toddlers have diarrhea and those who do not have diarrhea are 4 toddlers. The results of this cross tabulation that infants who were given exclusive breastfeeding were more likely to have no diarrhea compared to mothers who did not give exclusive breastfeeding, and they were more likely to experience diarrhea, and mothers who had toddlers should pay attention to giving exclusive breastfeeding to babies because exclusive breastfeeding is closely related to the incidence of diarrhea in toddlers.

4.2. Discussion on the relationship between the use of clean water and the incidence of diarrhea in toddlers

A total of 52 respondents with diarrhea, namely, mothers who use clean water as many as 30 people (55.76%) and of them there are 7 children under five who experience diarrhea, and 22 people (44.23%) do not use clean water and it is known that toddlers do not have diarrhea. had diarrhea as many as 7 people and 15 people had diarrhea

Using clean water, Water is a basic need that is used daily. Clean water, both physically colorless, must be clear/clear. Water that is not cloudy must be free from sand, dust, mud, garbage, foam and other impurities. Water that is tasteless, not salty, does not taste sour, is not brackish and is not bitter, must be free from toxic chemicals. The water does not smell like fishy, rancid, rotten or sulfuric odors.

4.3. Discussion between the relationship between hand washing and the incidence of diarrhea in toddlers

Based on the results of cross tabulation as many as 19 people (36.53%) mothers who have hand washing behavior and it is known that their toddlers have diarrhea 2 people and do not have diarrhea as many as 17 people, and mothers who do not have the habit of washing hands are 33 people (63, 46%) mothers and their toddlers experienced diarrhea as many as 20 and 13 children under five did not experience diarrhea.

Hand washing is the act of cleaning hands with or without water, other liquids and soap with the aim of cleaning hands from dirt and microorganisms. The purpose of hand washing is to clean hands from pathogens (including bacteria and viruses) and chemical substances that can be harmful and threaten health and are also related to the incidence of diarrhea in toddlers, who should wash hands before preparing food and drinks, wash hands after throwing away. water with soap, because soap can clean dirt and kill germs.

4.4. Discussion between PHBS using healthy latrines and the incidence of diarrhea

Based on the respondent's data, there were 52 mothers who used healthy latrines as many as 34 people (65.38%) mothers and their toddlers experienced diarrhea, namely 6 people and those who did not experience diarrhea were 26 people, while mothers who did not use healthy latrines were 18 people ( 34,61) it is known that 16 people have diarrhea for toddlers and 2 people who don't have diarrhea.Using a healthy latrine is a household or family that uses a latrine/WC with a septic tank or a manhole for the final disposal. The use of latrines will be beneficial to keep the environment clean, healthy and odorless. The latrine prevents contamination of the surrounding water sources. Healthy latrines also have requirements such as not polluting water sources, odorless, easy to clean and adequate lighting and ventilation. The use of healthy latrines is also closely related to the incidence of diarrhea in toddlers

# Conclusion

##### Based on the results of research and discussion on the relationship between PHBS and the incidence of diarrhea, it can be concluded as follows :

* 1. Based on the results of the study, there is a PHBS for exclusive breastfeeding, namely there is a relationship between exclusive breastfeeding and the incidence of diarrhea.
	2. Based on the results of the study, there is PHBS in the use of clean water, namely there is a relationship between the use of clean water and the incidence of diarrhea.
	3. Based on the results of the study, there is PHBS in washing hands, namely there is a relationship between hand washing behavior and the incidence of diarrhea.
	4. Based on the results of the study, there is PHBS in the use of healthy latrines, namely there is a relationship between the use of healthy latrines and the incidence of diarrhea.

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