

THE RELATIONSHIP LEVEL OF PERSONAL HYGIENE KNOWLEDGE OF MOTHERS WITH THE INCIDENCE OF DIARRHEA IN TODDLERS

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ABSTRACT

Diarrhea is a health problem in children under five years (toddlers). In the working area of the Dramaga Health Center in Bogor district, diarrhea is included in the top 10 diseases treated. The results of the preliminary study found that 7 out of 10 toddlers had experienced diarrhea in the last 6 months. The purpose of this study was to determine the incidence of diarrhea in toddlers in the working area of the Dramaga Health Center. This research is a quantitative analytic descriptive study with a cross sectional research design. The sample of this research is 50 respondents. The sampling technique in this study used Accidental Sampling. The data were processed using the Chi-Square statistical test. Based on the frequency of the level of personal hygiene knowledge with the incidence of diarrhea in toddlers there are 50 respondents (100%). With good knowledge, the frequency of occurrence of diarrhea was 47 respondents (47%) with moderate behavior. The results of bivariate analysis using the Chi-square statistical test, obtained a p value of $0.219 > 0.05$ so that H_a was accepted and H_o was rejected, indicating that there was a relationship between the level of knowledge of maternal personal hygiene and the incidence of diarrhea in toddlers. It is hoped that cadres and health centers can increase knowledge about the incidence of diarrhea in toddlers so that they can prevent the high incidence of diarrhea.

Keywords : Knowledge Level, Personal Hygiene, Diarrhea Incidence

INTRODUCTION

Health according to WHO is "a state that includes physical, mental and social health which does not only mean a condition that is free from disease and disability. Meanwhile, according to Law No. 23/1992 concerning health "A state of well-being of body, soul and social that allows everyone to live productively socially and economically."¹

Environmental health according to WHO states "Environmental health addresses all physical, chemical and biological factors of a person, and all factors that influence behavior. This includes assessing and controlling environmental factors that have the potential to affect health. It is targeted at preventing disease and creating an environment that will support health. This definition does not include behavior that is not related to the environment, as well as behavior related to the social and cultural environment, and genetics."³

The contribution of the environment in realizing the degree of health is essential in addition to the problems of community behavior, health services and heredity. The environment contributes the most to the emergence of public health problems.³

According to Law number 36 of 2009 concerning Health, environmental health efforts are aimed at realizing a healthy environmental quality, both physically, chemically, biologically and socially which enables everyone to achieve the highest degree of health. The healthy environment includes residential areas, workplaces, recreation areas, as well as public places and facilities. While the requirements for a healthy environment are free from elements that cause

health problems, including: liquid waste, solid waste, gas waste, waste that is not processed according to the requirements set by the government, disease-carrying animals, hazardous chemicals, noise that exceeds the threshold limits, ionizing and non-ionizing radiation, polluted water, polluted air, and contaminated food.

Health problem is a very complex problem, which is interrelated with other problems besides health itself. Likewise, solving public health problems is not only seen from the aspects that have an impact on the problem of 'health-illness' or health. 2

Environmental health is essentially a condition or condition of the environment that is optimal so that it has a positive effect on the realization of optimal health status as well. The scope of environmental health includes: housing, disposal of human waste (feces), provision of clean water, garbage disposal, disposal of dirty water (wastewater), housing for livestock (stables), and so on. The business in environmental health is an attempt to improve or optimize the human environment so that it is a good medium for the realization of optimum health for the people who live in it. Efforts to improve or enhance these environmental conditions from time to time, and from one community to another vary and vary in stages, from the simplest (primitive) business to the most recent (modern). In other words, technology in the field of environmental health varies greatly, from primitive technology, medium technology (appropriate technology) to the latest technology.

Knowledge is information or information that is known or realized by someone. Knowledge includes, but is not limited to descriptions, hypotheses, concepts, theories, principles and procedures that are Bayesian Probability correct or useful.²⁹ In another sense, knowledge is a variety of symptoms encountered and obtained by humans through intellectual observation. Knowledge arises when a person uses his mind to recognize certain objects or events that have never been seen or felt before. For example, when someone tastes new food, he will gain knowledge about the shape, taste and aroma of the dish. Knowledge is information that has been combined with understanding and the potential to act which then sticks in one's mind. In general, knowledge has the ability to predict something as a result of recognizing a pattern. When information and data only have the ability to inform or even cause confusion, then knowledge has the ability to direct action. This is what is called the potential to act.

The definition of hygiene is a public health effort that studies the relationship between environmental conditions and human health, efforts to prevent disease due to the relationship between the health environment and making environmental conditions such that health care is guaranteed. Personal Hygiene or individual hygiene (personal health business) is an attempt by a person to maintain and enhance their own health status, such as cleanliness of the skin, hair, teeth and cleanliness of the feet and nails. Personal hygiene for mothers, namely self-needs, helps reduce sources of infection and increases feelings of comfort. Advise mothers to maintain personal hygiene by bathing regularly at least twice a day, washing hands before and after cooking and feeding children, changing clothes and bedding and cleaning the environment where mothers live. Hygiene in toddlers is maintaining cleanliness by bathing with soap and clean water twice a day, washing hair with shampoo three times a week. Make it a habit to wash your child's hands and feet with soap after every game. Make it a habit to change underwear and outer clothing after bathing, after playing and if clothes are wet or dirty. Keep clothes, toys, bedding, and eating and drinking utensils clean. Routinely cut fingernails and toenails regularly and maintain cleanliness.

According to the Who Health Organization (WHO) (2017), diarrheal disease is still a global problem with a high degree of morbidity and mortality in various countries, especially in Indonesia and as one of the main causes of high morbidity and mortality in children under the age of 5 years in Indonesia. Globally, there has been an increase in the incidence of diarrhea and deaths from diarrhea in toddlers from 2015-2017. In 2015, diarrhea caused around 688 million people to get sick and 499,000 deaths in the world occurred in children under 5 years. WHO data (2017) states that nearly 1.7 billion cases of diarrhea occur in children with a mortality rate of around 525,000 in children under five each year (WHO, 2017 in Husniati, 2018)⁹

In Indonesia, diarrhea is one of the second biggest causes of death in infants and third for infants and fifth for all ages. The incidence of diarrhea generally occurs in developing countries with poor environmental sanitation conditions, insufficient water supply, poverty and limited education (Daulay & Rane, 2017). The incidence of diarrhea is also often associated with polluted water sources, inadequate sanitation, poor hygiene practices, contaminated food, malnutrition, and the age of children under five (WHO, 2017 in Husniati, 2018). ²¹

Basic Health Research data (Riskesdas 2018) shows that every year there are 25.2% of under-five deaths in Indonesia caused by diarrhea. Based on the 2017 Indonesia Health Profile, diarrhea outbreaks show that the CFR (Case Fatality Rate) rate in 2011 was 0.40%, while in 2012-2017 the CFR rate for diarrhea cases was still quite high ($\geq 1\%$). ²¹

Diarrhea is included in the top 10 diseases treated. The results of the initial survey found that 2 out of 10 toddlers had experienced diarrhea in the last 6 months. The incidence of diarrhea was measured based on the experience of watery stools more than 3 times a day during last 6 months. As many as 43.1% of children under five were declared to have experienced diarrhea during the last 6 months. Diarrhea in toddlers was mostly found in toddlers who had mothers with less knowledge (44.0%), proper latrines (45.8%) and had a history of non-exclusive breast milk (44.0%). Based on this, it can be concluded that exclusive breastfeeding is needed by infants to prevent the occurrence of infectious diseases, especially diarrhea

Based on data from the Bogor District Health Office report in 2016 the morbidity rate in the group of children under five (1-4 years) decreased from 19.4% to 18.3%. The morbidity rate for diarrhea was 35,617 cases (13.42%) out of a total of 265,391 cases of sufferers. This disease is still closely related to poor environmental conditions, this also includes the parenting style of mothers towards their children.¹¹

The thing that causes a person to be susceptible to diarrheal disease in infants is the community's Clean and Healthy Behavior (PHBS) which is not good and poor environmental sanitation. Diarrhea can be fatal if it is not taken seriously because a toddler's body is mostly made up of water and meat, so if diarrhea occurs it is very easy to get dehydrated. There are several factors related to the incidence of diarrhea, namely lack of hygiene facilities, personal hygiene, and bad environment, as well as inappropriate food preparation and storage. Many factors can directly or indirectly be a driving factor for diarrhea, consisting of agent, host, environment and behavior factors. Host factors that cause increased susceptibility to diarrhea, including not giving breast milk for 2 years, malnutrition. The most dominant environmental factors are clean water supply and excrement disposal facilities, these two factors will interact together with human behavior. If environmental factors are unhealthy because they are contaminated with diarrhea germs and accumulate with unhealthy human behavior, then transmission of diarrhea can easily occur.

The purpose of this study, with the research name Widyana Siregar and the research title, namely the Relationship between Environmental Sanitation and Personal Hygiene for Mothers and the Incidence of Diarrhea in Toddlers in the Wind Door Environment of Sibolga Village in 2016 was to analyze the correlation between environmental sanitation (clean water facilities, household toilets, sewage wastewater, and garbage disposal facilities) and personal hygiene of the mother (hand hygiene, cleanliness of nails, cleanliness of bottles, cleanliness of food equipment, and cleanliness of food ingredients) with the incidence of diarrhea in children under five. This type of research is an analytical survey with a cross-sectional study design. This research was conducted around the wind gate, Sibolga downstream District, Sibolga District, and a sample of 35 housewives with the criteria of mothers having children aged 12-59 months. The sampling method uses simple random sampling. The data were analyzed by Chi Square with a confidence interval of 95%. 22

The results showed that there was a significant relationship between clean water supply ($p = 0.016$), household toilet ($p = 0.004$), a garbage disposal facility ($p = 0.018$), and hand hygiene ($p = 0.017$) with the incidence of diarrhea occurring in babies. Meanwhile, waste disposal ($p = 0.915$), cleanliness of nails ($p = 0.357$), cleanliness of milk bottles ($p = 0.068$), cleanliness of cutlery ($p = 0.915$), cleanliness of food ingredients ($p = 0.668$) there is no significant relationship between the occurrence of diarrhea in children under five around the wind gate, Sibolga downstream District, and Sibolga District 2016. 22

This research will be carried out in the work area of the Dramaga Health Center with the target of Sukawening village, Dramaga Health Center is one of the Regional Technical Service Units in the health sector where Dramaga Health Center is an extension of the Bogor District Health Office in an effort to implement health development policies in the Dramaga District work area.

Based on report data obtained at the Dramaga Health Center, the number of diarrhea sufferers who were reported and treated at the Dramaga Health Center was 667 people from the age of 1 to >70 years old. Meanwhile, the number of diarrhea sufferers in toddlers aged 1 to 4 years from July 2019 to February 2020 was 310 toddlers.

After conducting a preliminary study of 10 respondents which the researchers conducted by distributing questionnaires, out of 10 respondents 7 of them stated that there was no relationship between maternal personal hygiene and the incidence of diarrhea in children. Diarrhea is caused not only from the mother's personal hygiene but also from the environment such as clean water facilities, residences, landfills and latrines. Meanwhile, 3 other respondents stated that the mother's personal hygiene greatly influences the health of toddlers and Clean and Healthy Lifestyle (PHBS) also affects the health of mothers and toddlers. Personal hygiene for mothers is very important for children's health, such as washing hands before feeding children, washing food before processing and exclusive breastfeeding.

Based on the results of research studies it is known that there is an influence between personal hygiene in mothers, level of knowledge, and the environment with the incidence of diarrhea in children under five. While the mother's age is not associated with the incidence of diarrhea in infants. The pattern of clean and healthy living behavior is also very influential on the incidence of diarrhea in infants, one of which is by giving exclusive breastfeeding to babies under the age of 2 years, because exclusive breastfeeding can reduce the risk of diarrhea in infants, because many people have given formula milk to their children..

Many studies have been done on diarrhea in toddlers. However, research on the personal hygiene of mothers and toddlers with the incidence of diarrhea in toddlers has not been carried out much. Therefore, researchers are interested in examining the relationship between knowledge of personal hygiene of mothers and toddlers with the incidence of diarrhea in toddlers.

RESEARCH METHODS

This research uses quantitative with an analytical approach. While the method used is cross sectional. The population in this study were mothers who had toddlers in Sukawening Village, Dramaga District, Bogor Regency, totaling 320. The sampling technique in this study used the Non-Probability Sampling method, namely taking samples that can be calculated, but solely based on mere practical aspects. . The sample in this research is 100 respondents and this research will use Accidental Sampling. The instrument used in this research is a questionnaire. Data analysis using univariate analysis and bivariate analysis with chi square test.

RESEARCH RESULT

Table 1. Frequency Distribution of Mothers' Personal Hygiene Knowledge Levels

No	Knowledge	Frequency (F)	Percentage (%)
1	Not enough	2	2%
2	Enough	5	5%
3	Good	93	93%
Total		100	100.0

Table 1 shows that the results of the analysis for the knowledge level variable are good with a total of 93 respondents (93%).

Table 2. Frequency Distribution of Diarrhea

No	Diarrhoea	Frequency (F)	Percentage (%)
1	Light	46	46%
2	Currently	47	47%
3	Heavy	7	7%
Total		100	100.0

Table 2 shows that the incidence of diarrhea in toddlers is 47 toddlers (47%).

Statistical test results of the relationship between the level of knowledge of personal hygiene of mothers and toddlers with the incidence of diarrhea in toddlers from 100 respondents who had a good level of knowledge were 43 respondents (46.2%). And the incidence of diarrhea is said to be moderate by 43 respondents (46.2%). The statistical test results obtained ρ value = 0.219, which means α (> 0.05) so that there is a relationship between the level of knowledge of mothers and the incidence of diarrhea in toddlers.

DISCUSSION

The results of this study are comparable to research conducted by Tia Rahayu and Maulina in 2019 researching "Personal Hygiene Measures for Mothers Against Diarrhea in Toddlers at the Teunom District Health Center" with the results of 38 respondents who had a good level of knowledge (65%). The results of the study with the chi-square test obtained p value = 0.219 α (> 0.05) which means that H_a is accepted and H_o is rejected, meaning that there is no relationship between the level of knowledge of maternal personal hygiene and the incidence of diarrhea in toddlers.

Knowledge is information that has been combined with understanding and the potential to act which then sticks in one's mind. In general, knowledge has the ability to predict something as a result of recognizing a pattern. Where information and data only have the ability to inform or even cause confusion, then knowledge has the ability to direct action. This is what is called the potential to act

In another sense, knowledge is a variety of symptoms encountered and obtained by humans through the observation of reason. Knowledge arises when a person uses his mind to recognize certain objects or events that have never been seen or felt before. For example, when someone tastes new food, he will gain knowledge about the shape, taste and aroma of the dish

personal hygiene in the mother, namely the need for self to help reduce the source of infection and increase feelings of comfort. Advise mothers to maintain personal hygiene by bathing regularly at least twice a day, washing hands before and after cooking and feeding children, changing clothes and bedding and cleaning the environment where mothers live.

From the research results, it can be concluded between theory and research results that the relationship between the knowledge level of mothers and toddlers and the incidence of diarrhea in toddlers in the Working Area of the Dramaga Health Center, Dramaga District, Bogor Regency in 2020, is the result of p value = 0.219 α (> 0.05) which meaning that there is a relationship between the independent variable and the dependent variable.

CONCLUSION

1. It is known that the frequency distribution of the level of personal hygiene knowledge of mothers with a good level of knowledge is 93 respondents (93%).
2. It is known that the frequency distribution of diarrhea in toddlers with moderate results is 47 toddlers (47%).
3. There is a relationship between the level of maternal personal hygiene knowledge and the incidence of diarrhea in toddlers, from 100 respondents the results were 43 respondents (46.2%). And the incidence of diarrhea is said to be moderate by 43 respondents (46.2%). The statistical test results obtained p value = 0.219, which means α (> 0.05) so that there is a relationship between the level of knowledge of mothers and the incidence of diarrhea in toddlers.

SUGGESTION

1. For the Wijaya Husada STIKes institution

It is hoped that this will be useful for the institution as a library material for further research, as a source of information about the level of knowledge of maternal personal hygiene with the incidence of diarrhea in toddlers and as a development of student material as well as Proceeding International Seminar

being used as a scientific reference on environmental health.

2. For Society
Increasing the prevention of diarrhea by keeping the environment clean, giving exclusive breastfeeding to infants and maintaining cleanliness by diligently washing hands before and after doing activities, and make it a habit to teach children to wash their hands after playing.
3. For other researchers
Conduct further research on the same problem but with other variables in the relationship between the incidence of diarrhea in toddlers.

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