

Relationship Between Environmental Sanitation and Incidence of Diarrhea in Under-Frees in The Working Area of The Bandar Marsilam Puskesmas, Simalungun District

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ABSTRACT

Diarrhea is still a health problem and a cause of death among toddlers where environmental sanitation is not proper can increase cases of diarrhea. The purpose of this study was to determine the relationship between sanitation, environment and diarrhea in toddlers at the Bandar Marsilam Health Center, Simalungun Regency. The research method used in this research is | Observational with cross sectional approach. The subject of this research is 1 | households with children and their children experienced a diarrhoea from 3 months June to December 2009 with a population of 328 children. Samples were selected using simple random sampling technique. There were 60 housewives involved in this study. The Chi square test was used to analyze the data. The results showed that there was a relationship between the source of drinking water (P 0.001), toilet ownership (P - 0.018), floor type of house (P - 0.036) cases of diarrhea in toddlers. There is no relationship between the physical quality of water (V 0.307) and cases of diarrhea in toddlers.

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INTRODUCTION

Diarrheal disease is still one of the main causes of morbidity and mortality. Almost all geographic areas of Duma and all age groups are attacked by diarrhea, but severe disease with high mortality is mainly found in infants and toddlers. In America | In the North, children suffer from diarrhea more than 12 times per year (Pitono et al, 2006) while according to Zubir et al (2006) diarrhea causes death by 15-34946 of all deaths, less than 300 deaths per year. Based on the research results of Ratnawati et al (2009) showed that 3546 of all under-five deaths were caused by acute diarrhea.

In Indonesia, the diarrhea morbidity rate in 2002 was 6.7 per 1,000 population, while in 2003 it increased to 10.6 per 1,000 population. The death rate from diarrhea is still quite high. The National Health Survey shows that diarrhea is the second cause of death, which is 23.0% in toddlers and number three, which is 11.476 in infants (Zubir et al, 2006). VAW Diarrhea detection coverage in Central Java has increased from 2005 to 2007, although it was still below expectations

(10,096), namely 806. This was due to the fact that the detection of diarrhea sufferers had not been maximized by cadres, puskesmas, private hospitals. Disease "diarrhea" is a disease based on the environment. Several factors are associated with the incidence of diarrhea, namely inadequate provision of clean water, water contaminated with feces, lack of hygiene facilities (unhygienic disposal of feces), poor personal and environmental hygiene, undercooked food preparation and storage of cooked food at room temperature which is not should (Sander, 2005). Many factors directly or indirectly drive the occurrence of diarrhea, namely agent, host, environment and behavior factors. Environmental factors are the most dominant factors, namely clean water supply and excrement disposal facilities, both factors 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 (Zubir et al, 2006).

The Puskesmas-Bandar Marsilam is one of the areas where the number of sufferers of diarrhea has increased in 2007-2008, namely as many as 660 people to 837 people. as many as 293 toddlers, while in 2018 there were 328 toddlers.

Based on the description above, researchers are interested in conducting research on the relationship between environmental sanitation and the incidence of diarrhea in toddlers in the Working Area of the Bandar Marsilam Health Center, Simalungun Regency, 2018. Formulation of the problem, is there a relationship between environmental sanitation and the incidence of diarrhea in toddlers in the Working Area of the Bandar Marsilam Public Health Center, Simalungun Regency in 2018?

RESEARCH METHOD

Types and Research Design

This research is a research in the form of an observational survey with a cross-sectional approach method, which is a study conducted with momentary observations or within a certain period of time and each study subject is only made one observation during the study (Machfoedz, 2007).

Time and Place of Research

The location of the research was carried out in a number of houses with toddlers who had suffered from diarrhea in the working area of the Bandar Marsilam Public Health Center, Simalungun Regency in January 2010.

RESULTS AND DISCUSSIONS

Relationship between Sources of Drinking Water and Diarrhea in Toddlers in the Working Area of the Bandar Marsilam Health Center, Simalungun Regency, 2018

The results of statistical data analysis show that the source of drinking water consumed has a relationship with the incidence of diarrhea in toddlers in the working area of the Bandar Marsilam Public Health Center, Simalungun Regency in 2018 where the value is $p < 0.001$. Data on sources of drinking water consumed by respondents are still classified as sources of drinking water that are not protected as much as 78.30 . Of the 60 research respondents, the presence of unprotected water sources caused diarrhea in 37 respondents.

Relationship between the Physical Quality of Clean Water and the Incidence of Diarrhea in Toddlers in the Work Area of the Bandar Marsilam Health Center, Regency. Simalungun 2018 The results of statistical tests show that the physical quality of clean water is not related to the incidence of diarrhea in toddlers ($p > 0.307$) . Based on the results of observations in the field it can be explained that the condition of the water that does not meet health requirements is not directly consumed by the respondents. This is because the water to be used is precipitated in the storage

area until it is separated from the impurities in the form of soil or mud. After that, the water is boiled until it boils.

The physical quality of clean water in most of the respondents did not meet the requirements as much as 51.7%. Based on the results of this study, it was found that of the 48.3% of respondents whose physical quality of clean water met the requirements, 31.7% experienced diarrhea and 16.6% did not experience diarrhea. Of the 51.7% of respondents whose physical quality of clean water did not meet conditions, that is, as many as 40% have diarrhea and 11% do not have diarrhea.

Relationship between Jambas Ownership and Drare Incidents in Toddlers in the Work Area of the Bandar Marsilam Health Center, Simalungun Regency, Tabun 2018

The statistical test results show that there is a relationship between family latrine ownership and the incidence of diarrhea in toddlers in the working area of the Bandar Marsilam Health Center, Simalungun Regency, in 2018 where $p < 0.018$. The research data shows that 58.3% of the respondents already have a family latrine, meaning that 41.7% of the respondent's families do not yet have a latrine and 46.7% of the respondents defecate in the garden or yard. Therefore, out of 60 research respondents, there were 22 toddlers who experienced diarrhea. By not having their own latrines, it can lead to the occurrence of diarrhea in toddlers because the excrement that is not buried tightly will invite flies and rats which will have an impact on environmental health.

Relationship between Type of Floor and Incidence of Diarrhea in Toddlers in the Work Area of the Bandar Marsilam Health Center, Simalungun Regency in 2018

The statistical test results showed that there was a relationship between floor type and the incidence of diarrhea in toddlers in the working area of the Bandar Marsilam Health Center, Simalungun Regency in 2018 where the p value was -0.036 . There are 45% of research respondents whose house floors are not waterproof. This kind of condition is very vulnerable to the health of toddlers. From the type of floor in the respondent's house that was not waterproof, there were 23 toddlers who had diarrhea, while the type of floor that was waterproof had 20 toddlers who had diarrhea. This condition reflects that the type of floor can affect health.

CONCLUSION

Based on the results of research conducted in the Bandar Marsilam health center area, it can be concluded that: There is a relationship between the source of drinking water and the incidence of diarrhea in infants. There is no relationship between the physical quality of clean water and the incidence of diarrhea in toddlers. There is a relationship between family latrine ownership and the incidence of diarrhea in toddlers. There is a relationship between the type of house floor and the incidence of diarrhea in toddlers.

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