# **Public Relations in Environmental Management Against Diarrhea Infection Rate**

Nurlena Andalia<sup>1</sup>, Muhammad Yassir<sup>2</sup>, Rika Aswarita<sup>2</sup>, Syafruddin<sup>3</sup>, M. Ridhwan<sup>1</sup>

<sup>1</sup> Universitas Serambi Mekkah

<sup>2</sup> Universitas Gunung Leuser Aceh

<sup>3</sup> Akademi Maritim Aceh Darussalam

Email: nurlena.andalia@serambimekkah.ac.id

Abstract: The purpose of this study was to determine the relationship between the community in environmental management and the level of diarrhea infection. This research was conducted in Serbajadi Village, Darul Makmur District, Nagan Raya Regency. When the research was carried out in October 2018. The population used was 250 heads of families (KK) in the village of Serbajadi, District of Darul Makmur, Nagan Raya Regency. The sample selected in this study were 100 heads of families in the village of Serbajadi, District of Darul Makmur, Nagan Raya Regency. Data collection was carried out by means of observation, interviews, documentation at the Puskesmas, and questionnaires. Community relations in environmental management on the level of diarrhea infection include drinking water sources, types of feces disposal sites and poor sanitation. The data were analyzed using the percentage formula, which is looking for the relationship between community relations in environmental management and the level of diarrhea infection. Based on the results of research and discussion, it can be concluded that from 100 people, 57 people have a bad home environment, and as many as 43 people who have a good home environment, where. There is a significant relationship between the provision of clean water and the incidence of diarrhea in children under five. factors such as houses and latrines, waste management and waste water management are also risk factors for diarrhea.

Keywords: Public Relations, Environmental Management, Diarrhea Infection

## Introduction

Environmental management in Indonesia is a serious problem that must be implemented immediately considering the level of environmental damage that has occurred. These efforts are closely related to human activities which have been considered to threaten the sustainability and stability of the environment. This effort is expected to reduce and even eliminate environmental damage. One of the things that should be of concern is the high level of environmental pollution, such as soil pollution caused by careless garbage disposal. This pollution has a very broad impact and is very detrimental to humans. Therefore, efforts must be made to reduce environmental pollution if necessary completely eliminating them (Fany, 2013). There are several factors related to the incidence of diarrhea consisting of environmental factors, namely inadequate supply of clean water, water contaminated with feces, lack of hygiene facilities, disposal of unhygienic feces, personal hygiene and poor environment, and improper food preparation and storage (Savitri, 2007).

The environment can be said to be an absolute part of human life. In other words, the environment cannot be separated from human life. Humans and the environment are essentially one of the buildings that should strengthen each other because humans are very dependent on the environment, while the environment also depends on human activities. Meanwhile, individual factors, namely malnutrition, where the frequency, duration, and severity of diarrhea are higher in malnourished children, lack of the body's natural defense mechanisms, reduced stomach acid production, reduced bowel movement, which affects normal food flow (Savitri, 2007).

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Diarrhea cases are also often related to diet and the environment. Often cases of acute diarrhea cause outbreaks so that it needs to be treated as early as possible (Zein, 2004). Based on the results of Adisasmito's research, (2007) it can be concluded that environmental factors are related to the incidence of diarrhea. Diarrhea is the leading cause of illness and death for children in developing countries, such as India or Indonesia. Diarrhea is also an important cause of poor nutrition or malnutrition. This is because children tend to eat less during an episode of diarrhea. Also, diarrhea can adversely affect the digestion of food. As a result, the body may not be able to use food effectively (Savitri, 2007).

#### Methods

This research was conducted in Serbajadi Village, Darul Makmur District, Nagan Raya Regency. When the research was carried out in October 2018. In this study the population used was 250 heads of families (KK) in the village of Serbajadi, District of Darul Makmur, Nagan Raya Regency.Random sampling means that every individual in the population has an equal chance of being sampled. As for the sample in this study is 40% of the population that has been determined. So, the selected sample in this study were 100 heads of families in Serbajadi Village, Darul Makmur District, Nagan Raya Regency.

Data collection was carried out by means of observation, interviews, documentation at the Puskesmas, and questionnaires. The questionnaire was divided into 2 parts, namely 10 points about people's knowledge in protecting the environment (X), and 10 points about people's behavior to prevent the level of diarrhea infection (Y). The answer score is determined by the researcher, namely for answer a = 4, for answer b = 3, for answer c = 2, and for answer for d = 1. Community relations in environmental management on the level of diarrhea infection include drinking water sources, types of feces disposal sites and poor sanitation.

Data were analyzed to see the relationship between the community in environmental management and the level of diarrhea infection. The data were analyzed using the percentage formula, which is looking for the relationship between community relations in environmental management and the level of diarrhea infection. Data analysis in this study was carried out using a percentage formula.

### Result

Based the results of the research as many as 100 family heads, it is known that most of the people in the Gampong Serbajadi area, Darul Makmur District, Nagan Raya Regency, namely 57 (57%) have a poor home environment, while 43 (43%) have a clean and good home environment. The number of people who experienced diarrhea was 10 (10%) in a good environment, while 29 (70.7%) people who experienced diarrhea in a bad environment.

This research is in line with Bhakti's research (2010) with the results of research showing that there is a relationship between environmental sanitation factors which include water sources (P=0.009), type of latrine (P=0.029), toilet cleanliness (P=0.002), garbage disposal (P=0.005) and wastewater management (P=0.026) with the incidence of diarrhea.

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#### Discussion

According to the assumptions of researchers, apart from the factors of houses and latrines, waste management and waste water management are also risk factors for diarrhea. This is evidenced by the results of observations made by researchers in the Gampong Serbajadi area, Darul Makmur District, Nagan Raya Regency, showing the results that respondents whose waste and wastewater management did not meet health requirements showed a higher incidence of diarrhea than those who met health requirements.

Waste management that does not meet the requirements causes more diarrhea because garbage that is not treated or disposed of carelessly can be a good place for the breeding of insects and microorganisms, insects as carriers for pathogenic microorganisms can spread microorganisms everywhere so that it becomes a risk of diarrhea.

Meanwhile, the effect of wastewater management on diarrhea occurs because the wastewater that is disposed of without proper management will be a good place for bacteria-carrying vectors that cause diarrhea to breed, thus causing a danger of contamination for people or communities who use surface water for their daily needs. So that those who use water containing diarrhea-causing bacteria for daily life are prone to experiencing diarrhea.

The results showed that most of the respondents (61.3%) had clean water that did not meet health requirements. While the Chi Square test results obtained a value of  $\rho$ -value  $0.006 \le$  alpha 0.05, which indicates that there is a significant relationship between the provision of clean water and the incidence of diarrhea in children under five.

This study is in line with Eva's (2010) research with a  $\rho$ -value of  $0.000 \le$  alpha 0.05, which indicates that there is a relationship between the provision of clean water and the incidence of diarrhea in children under five. This research is also in line with the opinion of Hartono Andry (2005) which states that in developing countries about 70% of cases of diarrhea are caused by the provision of contaminated drinking water and poor hygiene. Adnani Hariza (2011) also explains that the environmental health problem of clean water needs to be considered properly because it involves the source of drinking water consumed daily. If the source of drinking water consumed by the family is not healthy, then all family members will face health problems or diseases such as diarrhea.

#### Conclusion

Based on the results of research and discussion, it can be concluded that from 100 people, 57 people have a bad home environment, and as many as 43 people have a good home environment, where there is a significant relationship between the provision of clean water and the incidence of diarrhea in children under five. factors such as houses and latrines, waste management and waste water management are also risk factors for diarrhea.

#### References

Adisasmito. 2007. Sistem Kesehatan. PT. Raja Grafindo Persada. Jakarta

Adnani. 2011. Ilmu Kesehatan Masyarakat. Nuha Medika. Yogyakarta.

Bhakti. 2010. Hubungan antara Sanitasi Lingkungan dengan Kejadian Diare Pada Balita di Kecamatan Jatipuro Kabupaten Karanganyar. *Skripsi*. Falkultas Ilmu Kesehatan Universitas Muhammadiyah Surakarta.

Fany Pratma. 2013. *Pengelolaan Lingkungan Hidup*. Gelora Aksara Pratama. Jakarta Hartono dan Andry. 2005. *Penyakit Bawaan Makanan: Fokus Pendidikan Kesehatan*. Penerbit Buku Kedokteran EGC. Jakarta.

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- Marniati, Susy, & Nadiah. 2020. The Influence of Promotion and Knowledge for the Completeness of Basic Immunization in Infants. *J-Kesmas: Jurnal Fakultas Kesehatan Masyarakat (The Indonesian Journal of Public Health)*.
- Savitri. 2007. All You Wanted To Know About Diare. PT.Buana Ilmu Populer. Jakarta.
- Zein *et al.*, 2004. Diare Akut disebabkan Bakteri. *Skripsi*. Fakultas Kedokteran Bagian Ilmu Penyakit Dalam. Universitas Sumatra.
- Yarmaliza, & Marniati. 2017. Pengaruh Lingkungan Terhadap Kejadian Diare Pada Balita. *Prosiding Seminar Nasional USM*. 1(1).