

## The Effect Of Community Behavior In Disposal Waste In The Beach With Diare Events Wolomarang Wuring Area Sikka District

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### ABSTRACT

The behavior of disposing of garbage in the community is not in place, allowing health problems to occur if the waste is not handled properly and can provide a place to stay for vector vectors such as insects, rats, worms, fungi and others. These vectors can cause disease, one of which is the incidence of diarrhea. The design of this research is quantitative analytical research with a cross sectional approach and the focus of the research is directed at analyzing the influence of community behavior in disposing of garbage on the beach with the incidence of diarrhea in the WuringWolomarang region of Sikka Regency. The number of samples was 49 respondents taken by the Simple Random Sampling technique. The results showed that the majority of respondents had less behavior as many as 21 respondents (42.9%). In addition, respondents who had behavior in the sufficient category were 17 respondents (34.7%). While respondents who had behavior in the good category amounted to 11 respondents (22.4%). Most respondents experienced diarrhea as many as 33 respondents (67.3%). While respondents who did not experience diarrhea were 16 respondents (32.7%). The results of the Logistik Regression Test showed that the service of health workers with a p-value of 0,000 <0,05, H0 was rejected so that there was an influence of people's behavior in disposing of garbage on the beach with the incident of WuringWolomarang diarrhea in Sikka Regency. It is expected that respondents will maintain the cleanliness of the environment by making a garbage disposal post to be used as a garbage collection from the community in the Wuring Wolomarang area of Sikka Regency so that the incidence of diarrhea can decrease.

**Keywords :** Diarrhea, Behavior & Trash

### INTRODUCTION

One of the problems faced today is that the condition of Indonesian society is still very alarming. This can be found in events that still often occur in the community in the form of deviations from the rules, norms and values that apply in society with a variety of behaviors (Watihemawati, 2018). One of them is the behavior of disposing garbage to the community is not in place so that the impact that will arise if the waste is not handled properly can provide shelter for vectors of diseases such as insects, mice, worms, fungi and others. These vectors can cause disease, one of which is the occurrence of diarrhea (Sander, 2018).

WHO (2018), as many as 6 million people die every year due to diarrhea, some of these deaths occur in developing countries caused by infections of microorganisms such as bacteria, viruses, parasites, protozoa, and fecal-oral transmission. Diarrhea can affect all age groups, 76% of diarrhea deaths occur in infants, 15.5% of infant deaths and 26.4% of deaths in adults which are caused by pure diarrheal disease.

In Indonesia, every year more than 3,500,000 children are attacked by various types of diarrheal diseases with a number of deaths around 105,000 people. Riskesdas data (2018) shows that an increase in morbidity of diarrhea in Indonesia is around 200-400 events among 1000 population each year, most (70-80%) of these sufferers are children under five years old (toddlers). Some of the sufferers (1-2%) will fall into dehydration and if not immediately helped 50-60% of them can die. Diarrheal disease is the number 4 cause of death (13.2%) at

all ages in the infectious disease group. The proportion of diarrhea as the number 1 cause of death in post neonatal infants (31.4%) and in infants (25.2%) (Riskesdas, 2018).

According to data from the Sikka District Health Office, East Nusa Tenggara Province, the number of diarrhea occurrences has increased each year, by 2018 the number of sufferers was 1,453 children under five and adults. While diarrhea cases in Wuring Wolomarang Region, Sikka Regency were 56 cases during the last 3 months. The cause of high diarrhea is the lack of hygiene factors (personal hygiene or personal hygiene) and the lack of knowledge and behavior of the community which is indicated by the behavior of disposing garbage improperly so that the application of healthy living is still far from the criteria set forth by health agencies. This is a form of lack of awareness from the community in implementing clean and healthy living behaviors (PHBS) (Data from the Health Office of Sikka Regency of East Nusa Tenggara Province, 2019).

Based on the results of a preliminary study conducted on February 18, 2019 in the Wuring Coast Area of Wolomarang, Sikka Regency, it was known that 5 people said that the behavior of disposing garbage on the beach is a habit that can be carried out by the local community. The results of researchers' observations found that lack of food hygiene is characterized by the unavailability of food cover so that the behavior can be polluted by various vector diseases such as flies and mice originating from piles of rubbish dumped by people around the coast. Besides that, the behavior of people who do not wash their hands after handling and disposing of garbage is a habit that is still happening.<sup>3</sup> The community says that food left over after being eaten is not covered and left on the table so that it is easily contaminated by bacteria. This is supported by the results of observations by researchers where it is found that the distance between a residential house with a pile of garbage  $\pm$  5 meters so that it will have an impact on the incidence of diarrhea in the community if it does not maintain clean living behaviors such as food and drinks. 2 people said that they often forbade neighbors from the coast not to throw littering because it would cause diarrhea. However, the community ignored the prohibition. This was evidenced by the level of education and knowledge of the local community which was still minimal so that it did not know the impact or the causes of diarrhea (Results of Preliminary Study with Interview in Wuring Wolomarang Coastal Community in Sikka Regency, 2019).

Factors causing diarrhea include infection, food and environmental factors. Infectious factors include bacteria and viruses that commonly attack and cause infection are *E. coli*, *Salmonella*, *Vibrio cholerae* (cholera) *Shigella*, *Yersinia enterocolitica*, Enterovirus echovirus virus, human Retrovirate like Agent, Rotavirus, and parasites by worms (*Ascaris*), *Giardia calmbia*, *Cryptosporidium*, fungus (*Candidiasis*). Food factors where food is contaminated, stale, poisonous, too much fat, raw (vegetables), and undercooked. Behavior of people who pay less attention to food hygiene such as food management, food storage, storage of raw materials and protection of food ingredients against various vectors such as flies, rats that are in a pile of garbage around the beach can cause diarrhea. Besides that, environmental factors include lack of clean water with poor sanitation, infectious diseases, use of polluted water facilities, disposal of feces and not washing hands thoroughly after defecation, environmental conditions in which the environment is not maintained (Sander, 2018).

Therefore according to the opinion of researchers that the behavior of littering does not recognize the level of education or social status. The existence of rubbish in daily life cannot be separated from the hands of people who throw littering, they assume that goods that have been used do not have any more use and dispose of on their own. Lack of awareness of the importance of cleanliness is the most dominant factor, in addition to the sensitivity of the community to the environment must be questioned. They do not know the danger of what will happen if they cannot protect the surrounding environment (Saefiuddin, 2018). One form of

behavior to dispose of waste to the community is to throw trash on the beach. This condition causes the environment around the seashore to look very dirty due to piles of garbage, flying flies, many mice and mosquitoes, even spreading unpleasant odors that will have an impact on the incidence of diarrhea both in children and adults (Setiawan, 2017).

## METHODS

The research design is a depiction of the overall activities of researchers during research work, from preparation to implementation of research (Sugiyono, 2012). The research design used in this study is observational analytic with cross sectional approach, namely research that aims to determine the effect of 2 or more variables with the measurement model of the dependent and independent variables carried out simultaneously and performed once (Notoatmodjo, 2012).

## RESULT

### Subject Characteristics

**Table 1.** Characteristics of Respondents by Age and Diarrhea Information

No.	Characteristics	ΣN	Σ%
1	<b>Age (year)</b>		
	<25	15	30,6
	25-30	19	38,8
	>30	15	30,6
2	<b>Diarrhea information</b>		
	Ever	37	75,5
	Never	12	24,5
	<b>Total</b>	<b>49</b>	<b>100</b>

### Analysis Data

No.	Model	Sig	R <sup>2</sup>
1	(Constant)	0.008	0.570
2	Behavior	0.008	

Based on the results of the Logistic Regression analysis showed that the p-value of 0.008 < 0.05 then H0 was rejected and H1 was accepted so it was concluded that there was an influence of community behavior in disposing of garbage on the beach towards the diarrhea incident in Wuring Wolomarang Region, Sikka Regency.

## DISCUSSION

### A. Community Behavior in Disposing of Trash on the Coast of Wuring Wolomarang Region, Sikka Regency

The results showed that the majority of respondents had less behavior as much as 21 respondents (42.9%). In addition, respondents who had behaviors in the category of quite a number of 17 respondents (34.7%). Whereas respondents who had good behavior were 11 respondents (22.4%).

Behavior from a biological point of view is an activity or activity of the organism concerned. So human behavior is essentially an activity of humans themselves (Notoatmodjo, 2017).

Therefore, human behavior has a very broad expanse, including walking, talking, reacting, dressing, and so on. Even internal activities such as thinking, perception and emotions are also human behavior. For the sake of the analysis framework it can be said that behavior is what is done by the organism, whether it can be observed directly or indirectly (Notoatmodjo, 2017).

Behaviors and behavioral symptoms that appear in the organism's activities are influenced by both genetic factors (heredity) and the environment. In general it can be said that genetic and environmental factors are determinants of the behavior of living things including human behavior (Notoatmodjo, 2017).

Researchers believe that community behavior in disposing garbage on the beach is influenced by a lack of public awareness. The behavior done by the community tends to be lacking, awareness here means awareness of the importance of maintaining cleanliness. With a clean environment it will create high quality health as well. However, the people in Wuring Wolomarang Region Sikka Regency have a lack of behavior in disposing garbage, where many people still throw littering especially offshore, it will pollute the environment where in Wuring Wolomarang Region Sikka Regency residents occupy water above it so that can enable the quality of the environment especially water can affect the quality of public health.

### **B. Diarrhea incidence in Wuring Wolomarang region, Sikka Regency**

The results showed that the majority of respondents had diarrhea in 33 respondents (67.3%). While respondents who did not experience diarrhea were 16 respondents (32.7%).

Diarrhea is defecation with a soft or liquid consistency, it can even be in the form of water with frequency more than normal (three or more times) in one day (MOH, 2018). Diarrhea is bowel obstruction / defecation characterized by bowel movements more than 3 times a day with consistency of liquid stool, can be accompanied by blood and / or mucus (Simadibrata, 2018). Diarrhea is a bowel movement with a more fluid consistency than usual, with a frequency of three or more times in a 24 hour period (Widjaja, 2016).

The incidence of diarrhea in the Wuring Wolomarang Region Sikka Regency is still high where from the results of the study more than half of the samples had experienced diarrhea in the past month. Diarrhea experienced by people in the Wuring Wolomarang Region of Sikka Regency is caused due to the unclean environmental conditions where trash is often found under the house or around the house. Under these conditions it will affect the quality of food hygiene that is available. Food that will be consumed should be cleaned very clean and cutlery must be washed also with clean water. However, with environmental conditions that are still classified as slums, the quality of water and food ingredients will decrease in hygiene and can affect the digestive tract if the food material enters the digestion

### **C. Effect of Community Behavior in Disposing of Trash on the Beach with the Diarrhea Incidence in the Wuring Wolomarang Region of Sikka Regency**

Based on the results of the Logistic Regression analysis showed that the p-value of 0,000 <0.05 then H0 was rejected and H1 was accepted so it was concluded that there was an influence of community behavior in disposing of garbage on the beach towards the diarrhea incident in Wuring Wolomarang Region, Sikka Regency.

One of the problems faced today is that the condition of Indonesian society is still very alarming. This can be found in events that still often occur in the community in the form of deviations from the rules, norms and values that apply in society with a variety of behaviors

(Watihemawati, 2018). One of them is the behavior of disposing garbage to the community is not in place so that the impact that will arise if the waste is not handled properly can provide shelter for vectors of diseases such as insects, mice, worms, fungi and others. These vectors can cause disease, one of which is the occurrence of diarrhea (Sander, 2018).

Factors causing diarrhea include infection, food and environmental factors. Infectious factors include bacteria and viruses that commonly attack and cause infection are *E. coli*, *Salmonella*, *Vibrio cholerae* (cholera) *Shigella*, *Yersinia enterocolitica*, Enterovirus echovirus virus, human Retrovirate like Agent, Rotavirus, and parasites by worms (*Ascaris*), *Giardia calmbia*, *Cryptosporidium*, fungus (*Candidiasis*). Food factors where food is contaminated, stale, poisonous, too much fat, raw (vegetables), and undercooked. Behavior of people who pay less attention to food hygiene such as food management, food storage, storage of raw materials and protection of food ingredients against various vectors such as flies, rats that are in a pile of garbage around the beach can cause diarrhea. In addition, environmental factors include lack of clean water with poor sanitation, communicable diseases, use of polluted water facilities, disposal of feces and not washing hands thoroughly after defecation, dirty environmental conditions and poor hygiene (Sander, 2018).

Based on the results of the study found that most respondents had heard information about diarrhea from electronic media such as television, smartphones, etc. With sufficient knowledge, it can influence people's behavior in disposing of waste which, if the waste pollutes around the residence, will reduce the quality of health in the Wuring Wolomarang Region of Sikka Regency and can increase the risk of exposure to hygiene-related diseases such as diarrhea. Diarrhea is still often experienced by people in the Wuring Wolomarang Region of Sikka Regency where the possible cause of diarrhea is the people's behavior in disposing of waste which is still lacking.

## CONCLUSIONS

1. Most respondents have less behavior as much as 21 respondents (42.9%). In addition, respondents who had behaviors in the category of quite a number of 17 respondents (34.7%). Whereas respondents who had good behavior were 11 respondents (22.4%).
2. Most respondents had diarrhea as many as 33 respondents (67.3%). While respondents who did not experience diarrhea were 16 respondents (32.7%).
3. There is an influence of community behavior in disposing garbage on the beach towards the diarrhea incident in Wuring Wolomarang Region, Sikka Regency

## REFERENCE

- A.Aziz, Alimul Hidayat. 2017. Metode Penelitian Keperawatan Dan Teknik Analisis Data. Jakarta : Penerbit. Salemba Medika.
- Data Riskesdas, 2018. Statistik Persampahan Indonesia.
- Dinas Kesehatan Kabupaten Sikka Provinsi Nusa Tenggara Timur, 2019. Permasalahan dan Pengelolaan Sampah, Kabupaten Sikka.
- Darwis, S. D. 2016. Metode Penelitian. Jakarta : EGC.
- DepKes, R. I. 2018. Pedoman Pemberantasan Penyakit Diare. Jakarta: Ditjen Ppm Dan Pl; 2018.
- DepartemenKesehatan RI., 2018. Konsep Diare dan Sebaran Data Penyakit Diare Menurut Provinsi, Kota di Indonesia. 2018.
- Gurning P.D., 2018. Perilaku dan inspeksi sanitasi dengan kejadian diare di desa tablolong kecamatan kupang barat. Thesis. Yogyakarta: Program studi Pascasarjana Ilmu Kesehatan Kerja, Universitas Gajah Mada.

- Mulia, Ricki m. 2017. Kesehatan lingkungan. Graha ilmu; Jakarta.
- Notoatmodjo, Soekidjo. 2017. Konsep Pengetahuan, Pendidikan dan Perilaku Kesehatan. Jakarta : Rineka Cipta.
- Notoatmadjo, Soekidjo. 2017. Kesehatan dalam masyarakat dalam ilmu seni. PT. Rineka Cipta. Jakarta.
- Notoatmodjo, Soekidjo. 2012. Metodologi Penelitian Kesehatan. Jakarta : Rineka Cipta.
- Nurhidayat & Setyo, P. 2016. Mengolah Sampah Untuk Pupuk Dan Pestisida Organik. Jakarta: Seri Agritekno.
- Nursalam, 2012. Konsep dan Penerapan Metodologi Penelitian Ilmu Keperawatan. Jakarta : Salemba Medika.
- Sander, M. A. 2018. Hubungan Faktor Sosio Budaya Dengan Kejadian Diare Di Desa Candinegoro Kecamatan Wonoayu Sidoarjo. Jurnal Medika. Vol 2. No.2. Juli-Desember 2018: 163-193; 2018.
- Simadibrata M., 2018. Diare Akut dalam Aru W. Sudoyo (Editor) Buku Ajar Ilmu Penyakit dalam. Jakarta: Interna publishing pp. 548-556.
- Soebagyo, B. 2017. KonsepDiare. Surakarta:Universitas Sebelas Maret Press; 2017.
- Suharyono., 2018. Diare akut dalam Diare akut Klinik dan laboratorik. Jakarta : Rineka Cipta. Pp. 5.
- Sugiyono, 2012. Metode Penelitian Kuantitatif Kualitatif Dan R&D (Edisi Revisi). Bandung : CV. Alfabeta.
- Watihemawati, 2018. Pencemaran Lingkungan. Jakarta :Rineka Cipta.
- Widjaja, M.C. 2016. Mengatasi Diare Dan Keracunan Pada Balita. Jakarta: KawanPustaka; 2016.
- Zubir, Juffrie, M., Dan Wibowo, T. 21015. Faktor-Faktor Risiko Kejadian Diare Akut Pada Anak 0-35 Bulan (Batita) Di Kabupaten Bantul. Sains Kesehatan. Vol 19. No 3. Juli 2015. Issn 1411-6197 : 319-332; 2015.