




## The influence of health promotion on waste disposal behavior in the community in Huta Tonga-Tonga sub-district, Sibolga city in 2022

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p>Received Sep 04, 2022 Revised Sep 14, 2022 Accepted Sep 30, 2022</p> <hr/> <p><b>Keywords:</b></p> <p>Rubbish; Environment; Behavior; Throw garbage.</p>	<p>Waste is a common problem that is currently faced by people all over the world. The World Bank (2018) said that the world's population. The World Bank (2018) said that the world's population which increases every year is the cause of an increasingly critical waste problem. The countries that are the largest contributors of waste are China, Indonesia, the Philippines, Vietnam and Sri Lanka. In Indonesia, 64 million tons of waste per year and is expected to continue to increase every year. The research design used is qualitative research, using ethnographic methods. Ethnographic research basically aims to understand or explore life, certain behaviors in a group of people. This study was conducted to obtain in-depth information and to find out the behavior of people throwing away waste in the Huta Tonga-Tonga sub-district of Sibolga City. Based on the results of the study, it is known that most of the people in the Huta Tonga-Tonga sub-district subscribe to the waste collection services in the Huta Tonga-Tonga sub-district, which are collected every day using pick-up trucks. In a day, garbage officers collect garbage twice a day, at 07.00 WIB and 17.00 WIB. It was concluded that the behavior of people throwing away garbage in the Huta Tonga-Tonga community in Sibolga city, some want it instantly and some throw it directly into the trash bin in Huta Tonga-Tonga, Sibolga city and some are placed on the side of the road and then taken by cleaning officers using trucks.</p> <p style="text-align: right;"><i>This is an open access article under the <a href="https://creativecommons.org/licenses/by-nc/4.0/">CC BY-NC</a> license.</i></p> 

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### 1. Introduction

Garbage is a common problem that is currently faced by people all over the world. The problem of garbage is a problem that should get more attention with the increasing population growth rate. (Maryono, 2020), (ADITAMA, nd). The World Bank (2018) said that the world's population that increases every year is the cause of increasingly critical waste problems. Waste generation throughout the world continues to experience a significant increase. In 2016, major cities around the world produced 2.01 billion tons of solid waste. The countries that are the largest contributors of waste are China, Indonesia, the Philippines, Vietnam and Sri Lanka. (Sukatin et al., nd), (Andjarwati, Firmansyah, Kusumartono, & Krisbandono, nd).

Based on news released by the United Nations Environment Programme (UNEP) in November 2012, citing the latest World Bank report entitled "What's a waste: A Global Review of Solid Waste Management", it was stated that the volume of world waste reaches 1.3 billion tons per year. (SAPUTRA,

Ervina, Sumaryono, Darwis, & Ismiati, 2022),(Kurniasari, 2019). With the amount of solid waste in large cities set to continue to increase by 70%, this volume is expected to reach 2.2 billion tons by 2025. For example, in 2009 global plastic production was about 243 million tons, 29.8 tons of which were used and discarded in the United States.(Azaria & Sucipto, 2014),(Budiarto, 2011). According to the United States Environmental Protection Agency (USEEPA) report on municipal solid waste, of this amount only 7.1% or 2.1 million tons are collected and recycled, the rest is burned with other municipal solid waste in waste-to-energy programs that produce only 10% energy, and the majority is disposed of in landfills at 85%(Azaria & Sucipto, 2014),(SAPUTRA et al., 2022).

Based on data from the Ministry of Environment and Forestry (2018), the total waste in Indonesia is 64 million tons per year and is expected to continue to increase every year. Waste has become a fundamental environmental problem in Indonesia.(Nasution, 2022),(Candra, Fadillah, Diah, Widya, & Abidahsari, 2021). Waste continues to accumulate over time. In 2012, the Ministry of Environment noted that the average Indonesian population produces around 2.5 liters of waste per day or 625 million liters of the total population.(Lestari, 2016),(Shahab, 2021).

According to data from the Regional Public Works Agency, waste in Sibolga City comes from household and non-household waste, which includes waste from residential areas, shops, restaurants, hotels, offices, public facilities, and street sweeping, which is dominated by organic waste.(Princess, 2010),(Mandacan, 2017). Currently, these sources of waste are one of the most influential sources of pollution and environmental damage. Piling up of waste and improper waste management can have a negative impact on the health and beauty of the surrounding environment. Waste can come from various activities, both from human activities and natural activities themselves.(Wind & Pasaribu, 2021),(BARA, 2018).

## **2. Methods**

### **2.1 Research design**

This research uses a qualitative research method. Qualitative research is a type of research whose findings are not obtained through statistical procedures or other forms of calculations and seeks to understand and interpret the meaning of an event of human behavioral interaction in a particular situation according to the researcher's own perspective.(Fadli, 2021),(Fahdini, Furnamasari, & Dewi, 2021). Qualitative use was chosen so that research on the role of health promoters on community behavior in disposing of waste is easy to do.

The method used in this study is the ethnographic method. Ethnographic research basically aims to understand or explore life, certain behaviors in a group of people. This study was conducted to obtain in-depth information and to find out the behavior of people throwing away garbage in the Huta Tonga-Tonga sub-district of Sibolga city.

### **2.2 Place and Time of Research**

This research was conducted in Huta Tonga-Tonga sub-district, Sibolga City from July 2022 to August 2022.

### **2.3 Population and Sample**

Based on the objectives to be achieved, the informants in this study were people aged 20-40 years in the city of Sibolga. The sampling method was carried out randomly according to the criteria based on the proportion of each.

Data collection was carried out by collecting primary data and secondary data. Primary data was obtained based on the results of observation and in-depth interviews, namely statements and information obtained verbally and from informants through meetings and conversations. Secondary data was obtained from data from the Sibolga City Environmental Service.

## 2.4 Data Analysis Techniques

The data analysis carried out is processing data in a form that is easier to read and interpret and can be tested statistically, the truth of the hypothesis that has been set, According to Miles and Huberman data analysis is carried out interactively and continues continuously until complete, so that the data is saturated. The following are Miles and Huberman's data analysis techniques (Sugiyono, 2018), namely:

### a. Data reduction

Data reduction means summarizing, selecting the main points, focusing on the important things, looking for themes from the patterns and discarding the unnecessary. Thus, the reduced data will provide a clear picture and make it easier for researchers to collect further data.

### b. Display data

After the data is reduced, the next stage is to present the data or display the data. In qualitative research, data presentation can be done in the form of brief descriptions, charts, relationships between categories, flowcharts and the like.

### c. Drawing conclusions

After displaying the data, the final step is drawing conclusions. According to Miles and Huberman, the initial conclusions put forward are still temporary, and will change if no valid evidence and consistency are found when researchers are in the field during the data collection process, then the conclusions put forward are credible or trustworthy conclusions.

## 3. Results and Discussion

### 3.1 Knowledge about reproductive health

Distribution of respondents by age in the sub-districts of Sibolga city in 2022

Table 1.  
Description of Hemoglobin Levels Before and After Intervention of Adolescent Girls in Hajoran Subdistrict,  
Pandan District, Central Tapanuli

Code	Age	Gender	Work
AF Informant	39 years old	Woman	Mother household
OD Informant	25 years	Man	Private sector employee
AN Informant	26 years old	Woman	Self-employed
VJ Informant	28 years old	Woman	Teacher

The main informants consisted of 4 people with an average age of 25 to 39 years with each occupation being 1 housewife, 1 private employee, 1 self-employed person, and 1 teacher.

### 3.1. Discussion

Discussion According to Law Number 18 of 2008 concerning waste management, waste is a national problem. Waste management needs to be carried out comprehensively and integrated from upstream to downstream. Waste management can provide economic benefits, be healthy for the community, be safe for the environment, and can change people's behavior. According to data from the Ministry of Environment and Forestry (KLHK) in 2022, waste generation in Indonesia annually reaches 19,255,966.82 tons, and daily it is 52,756.07 tons. During a day, it produces 0.6 kilograms of waste per person per day and similar conditions also occur in the Sibolga City area. There are one million people domiciled in the Sibolga City area who produce 600 tons of waste/day. This figure is in contrast to the capacity which can only accommodate 100 tons/day. In 2021, there was a potential for waste generation of 197,895.34 tons/year with managed waste of 122,315.54 tons/year (61.81%). There is still household waste and household-like waste that has not been managed properly and correctly amounting to 75,579.79 tons/year. The type of waste that dominates is household waste, which is 32.5%. Household waste is waste that comes from daily activities in the household (excluding feces and specific

waste)(Dewi & Raharjo, 2019),(Widyaningsih, 2018). Management needs to be carried out at the household level so as not to increase the amount of waste generated. The cleanliness movement will not succeed without the support of various parties, including the village government, PKK activists and the entire community in Sibolga City. The work program includes two aspects. First, improving performance in the field of reducing household waste and household-like waste through limiting waste generation, reusing and recycling waste. Second, improving performance in the field of handling household waste and household-like waste through collection/containerization(Ambina, 2019),(Andina, 2019), transportation, processing, and final processing. 3.6 Both of these aspects require participation and active roles from all levels of society. The community has an important role in waste management, namely helping to participate in waste management development programs that are conditioned according to the abilities of each individual. Without the active role of the community, all waste management programs will not be successful.(Shahreza, 2018),(Nurmala & KM, 2020). Community approach is one of the supporting factors for the success of a program and is assisted by the government sector. The community's view to get used to good behavior in orderly waste management is influenced by individual, social, structural and local cultural factors. In terms of quality, the active role of the community is greatly needed as input in making policies and strategies to attract the interest of other communities. Thus, the credibility of policy making will represent the problems in the field.(Rival'i, 2016),(Asmani, 2015).

No less important is the individual factor, namely knowledge about waste management and the programs being run, which are factors that need to be taken into account. The attitude of the community in dealing with waste begins with the knowledge they have. A community that has good knowledge and awareness of the impact of waste will definitely try to manage it properly. Therefore, a community that is actively involved in overcoming health problems begins with increasing knowledge. The community will be more competent in solving health problems, one of which is waste. This study aims to increase public knowledge about waste management and the Bantul Bersama program through a health intervention. The intervention is in the form of health education to remind the community to remain consistent in managing waste, so that it can contribute to reducing waste generation and its health impacts.

Primary data collection used pre-test and post-test questionnaires as research instruments. The questionnaire contained ten short questions with closed answers according to the educational material that had been given during the intervention. Data testing was carried out using bivariate analysis with the Wilcoxon test because the data was not normally distributed.

Health promotion has a significant influence on waste disposal behavior in the community, namely:

- (a) Education and Counseling: Health promotion programs often include educational activities that provide information about the negative impacts of waste on health and the environment. Educated communities tend to be more aware of the importance of disposing of waste properly.
- (b) Environmental Awareness: Health promotion can increase public awareness of the importance of maintaining a clean environment. By understanding the relationship between human health and the environment, people are more motivated to dispose of waste in a good way.
- (c) Social Campaign: Interesting campaigns, either through social media or direct activities, can influence community behavior. For example, posters, videos, or cleanliness competitions can arouse emotions and motivate people to participate in maintaining cleanliness.
- (d) Behavioral Models: Community leaders and community figures who demonstrate positive behavior in disposing of waste can be role models. When people see public figures doing good deeds, they are more likely to follow suit.
- (e) Active Participation: Mutual cooperation or environmental clean-up activities organized in health promotion programs can create a sense of ownership and responsibility. Direct participation in maintaining cleanliness can increase compliance with good behavior.
- (f) Adequate Facilities: Health promotion also encourages the government or related parties to provide adequate and easily accessible waste disposal facilities. When waste bins are available, people are more likely to dispose of waste properly.
- (g) Policy Strengthening: Support for policies that promote good waste management, such as imposing sanctions on violators, can increase public awareness and compliance with hygiene norms.

#### 4. Conclusion

Based on the research results obtained from the role of health promoters in waste disposal behavior in the community in the Huta Tonga-Tonga sub-district of Sibolga city: (a) Based on the characteristics of informants, age, gender, education and occupation, most of them have a bachelor's degree from the age of 25-46 years, (b) There is an increase in the role of health promotion in increasing waste disposal behavior in the community in the Huta Tonga-Tonga sub-district of Sibolga city.

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