

## Factors Related To Household Waste Disposal In The Sewer In Rt 03 And 11, Tengah Padang Village

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### ABSTRACT

The behavior of throwing household waste into the gutter, the lack of public knowledge about the negative impacts of throwing waste into the gutter and the importance of maintaining environmental cleanliness, the public's attitude of not caring about environmental cleanliness and the lack of availability of adequate waste management facilities in RT 03 and 11, Tengah Padang Village. The type of research used was quantitative with a cross-sectional approach. The population in this study was 63 respondents. The results of the frequency distribution showed that the majority of knowledge factors were in the less category (71.4%), the majority of attitude factors were in the less category (50.8%), and the majority of facility availability factors were in the nonexistent category (57.1%). The results of the Chi-Square test for the knowledge factor showed a  $p$  value = 0.00, the attitude factor showed a  $p$  value = 0.02, the availability of facilities factor showed a  $p$  value = 0.00, that there is a relationship between knowledge, attitude, and availability of facilities with the behavior of throwing household waste into the gutter in RT 03 and 11, Tengah Padang Village. The conclusion in this study shows that there is a relationship between knowledge, attitude, and availability of facilities on community behavior of throwing household waste into the gutter in RT 03 and 11, Tengah Padang Village. Therefore, it is recommended that the community dispose of waste in its place, namely the trash bins that have been provided, separate organic and non-organic waste to facilitate waste management by not throwing waste into the gutter, we can reduce water pollution.

## INTRODUCTION

Environmental health is reflected in a beautiful and clean environment. Environmental cleanliness characterizes a beautiful existence that must be protected from various environmental problems. Environmental problems are caused by the limited knowledge of local communities regarding changes in the area around their homes. Several factors contribute to these environmental changes, including: changes in environmental function and structure, decreased environmental carrying capacity and quality, the lack of integrated management of human, natural, and artificial resources, and the lack of environmental improvement among various parties. Most importantly, environmental pollution (Sehol et al. 2022).

Waste is the waste generated from various production processes, including those from the domestic sector, such as households. Furthermore, waste is also the result of the activities of living organisms and the surrounding ecosystem. Over time, waste has come from various sources, including household waste and factory waste containing chemicals such as fluoride, chloride, bromine, and iodide. Waste continues to arise and is a difficult problem to solve for various groups, requiring awareness of environmental conditions. Lack of awareness of environmental cleanliness is a factor contributing to the accumulation of waste, resulting in a less beautiful and healthy environment (Sehol et al. 2022).

Population growth is one of the factors that increase the amount of waste produced. Indonesia's population is estimated to reach 284,829,000 in 2025, an increase of 23,713,544 from 2016. If it is assumed that the amount of waste produced per year remains the same, the amount of waste that will increase is 5,928,386 tons. In 2016, the amount of waste produced in Indonesia reached 65,200,000 tons per year with a population of 261,115,456 people, according to the Ministry of Industry in the World Bank. Indonesia's population experiences population growth every year and changes in population consumption patterns have an impact on increasing the volume, type, and characteristics of increasingly diverse waste (Directorate of Social Resilience Statistics, 2023).

Waste issues have become commonplace almost everywhere in the world, including in Indonesia. According to 2020 data from the National Waste Management Information System (SIPSN), household waste accounted for the largest portion of waste in Indonesia, at 32.4%.

Household waste is the largest source of waste in a region. Waste sorting is also still largely unregulated. Therefore, household waste sorting is essential, as SIPSN data indicates that household waste is the most common form of waste generated (Juniarti & Nina, 2022).

Based on Bengkulu Mayor Regulation Number 37 of 2019 concerning Bengkulu City's policies and strategies in managing household waste and household-like waste. Which is contained in Chapter 1 of the general provisions, article 1, one of which explains that household-like waste is household waste originating from commercial areas, industrial areas, special areas, social facilities, public facilities and/or other facilities (Bengkulu Mayor Regulation Number 37 of 2019).

According to the initial survey, it was still found that people, especially housewives, have the habit of throwing away garbage because there are no trash cans in their homes. The existence of gutters in RT 03 and 11, Tengah Padang Village, is used by housewives to throw away garbage and there is still a lack of knowledge about the consequences of throwing garbage in the gutters, the residents of RT 03 and 11, most of whom live in coastal areas and the majority of the population in the area still lack awareness of maintaining environmental cleanliness.

## RESEARCH METHODS

After the data was collected in this study, it was processed and analyzed using statistical methods. The data was entered and processed using SPSS computer software. This study adopted two approaches: univariate analysis and bivariate analysis.

### 1. Univariate Analysis

Univariate analysis in this study was conducted to determine the frequency distribution of each dependent and independent variable, namely behavior, knowledge, attitude and availability of facilities by the government.

### 2. Bivariate Analysis

Bivariate analysis in this study is the stage of analyzing the relationship between the dependent variable and the independent variable. To determine whether or not there is a relationship between the independent and dependent variables using a formula based on the measurement scale of the variables used and the data analysis used is chi square in the X2 test used to test the freedom between two variables arranged in a row and column table with  $\alpha = 0.05$ , meaning the null hypothesis ( $H_0$ ) is rejected if the value  $<$  which means there is an influence between the dependent variable and the independent variable.

## RESULTS

Frequency distribution is the grouping of data into classes and the calculation of the frequency of each class. The results of the univariate analysis are as follows:

**Table 1 Frequency Distribution of Factors Related to the Behavior of Disposing of Household Waste into the Drain in RT 03 and 11, Tengah Padang Subdistrict**

Behavior	Frekuensi(n)	Percentage (%)
Bad	33	52.4
Good	30	47.6
Total	63	100
Knowledge	Frekuensi(n)	Percentage (%)
not enough	38	60.3
Good	25	39.7
Total	63	100
Attitude	Frekuensi(n)	Percentage (%)
not enough	32	50.8
God	31	49.2
Total	63	100
Availability of facilities	Frekuensi(n)	Percentage (%)
There isn't any	37	58.7
There is	26	41.3
Total	63	100

(Sumber : Data Primer, 2025).

Based on the table above, it is known that most respondents have bad behavior, namely 33 people (52.4%). Meanwhile, as many as 30 people (47.6%) have good behavior, most respondents have a low level of knowledge, namely 38 people (60.3%), while respondents with good knowledge numbered 25 people (39.7%). It is known that most respondents have a low attitude, namely 32 people (50.8%), while respondents who have a good attitude numbered 31 people (49.2%) most respondents stated that the facilities were not available, namely 37 people (58.17%). Meanwhile, respondents who stated that the facilities were available numbered 26 people (41.3%).

**Table 2 Results of Bivariate Analysis of the Relationship between Knowledge and Waste Disposal Behavior**

No	Knowledge	Behavior						p-value
		Good		Enough		Bad		
		n	%	n	%	n	%	
1	Good	19	30.2	6	9,3	25	39.7	0.000
2	Not enough	11	17.3	27	7.9	38	60.3	
3	Total	30	47.6	33	52.4	63	100.0	

Based on the table above, of the 63 respondents studied, the majority (38 respondents, 60.3%) had poor knowledge. Meanwhile, 25 respondents (39.7%) had good knowledge. The chi-square test results showed a p-value of  $0.000 < 0.05$ , thus  $H_{a1}$  was accepted and  $H_{O1}$  was rejected. This indicates a relationship between knowledge and household waste disposal behavior in RT 03 and 11, Tengah Padang Village.

**Table 3 Relationship between Attitude and Waste Disposal Behavior**

No	Attitude	Behavior						p-value
		good		Enough		bad		
		n	%	n	%	n	%	
1	Not enough	23	36.5	10	15.9	33	52.4	0.000
2	Good	9	14.3	21	33.3	30	47.6	
	Total	32	50.8	31	49.2	63	100.0	

Based on the table above, from a total of 63 respondents, it is known that most respondents who have bad behavior also have poor attitudes, namely 33 people (52.4%). On the other hand, good behavior is more often found in respondents who have good attitudes, namely 30 people (47.6%). The results of the Chi-Square test show a p value =  $0.002 < 0.05$ , so  $H_{a2}$  is accepted and  $H_{O2}$  is rejected, so this shows that there is a relationship between attitudes and the behavior of people disposing of household waste in RT 03 and 11, Tengah Padang Village.

**Table 4. Relationship between Availability of Facilities and Waste Disposal Behavior**

No	Availability of facilities	Behavior						p-value
		good		Enough		bad		
		n	%	n	%	n	%	
1	There is	23	36,5%	3	4,8%	26	41,3%	0.000
2	There isn't any	7	11,1%	30	47,6%	37	58,7%	
	Total	30	47,6%	33	52,4%	63	100,0%	

Of the 63 respondents, 37 (58.7%) reported no facilities, and 26 (41.3%) reported facilities. Of those respondents whose behavior was lacking, the majority (30 or 47.6%) stated that the availability of facilities was inadequate. Only 3 (4.8%) considered the facilities adequate. Conversely, of those respondents whose behavior was adequate, more (23) considered the availability of facilities adequate, while 7 (11.1%) still considered them inadequate.

## Discussion

### Relationship between Knowledge and Household Waste Disposal Behavior

Based on the Chi-Square statistical analysis above, the p-value was  $0.000 < 0.05$ , indicating that  $H_{a1}$  was accepted and  $H_{O1}$  was rejected. This indicates a relationship between knowledge and household waste disposal behavior in RT 03 and 11, Tengah Padang Village. These results align with those of Alfikri et al., 2018, which found a significant relationship between knowledge and waste disposal behavior.

Respondents with adequate knowledge were 8.6 times more likely to engage in proper waste disposal behavior than those with inadequate knowledge ( $p = 0.001$ ; OR = 8.654; 95% CI = 3.265 – 41.592). The multivariate analysis showed that knowledge was the most dominant variable associated with waste disposal behavior in the Helvetia Village. The results of this study are also in line with research conducted by (Sarwoko et al., 2023) Factors Related to Household Waste Disposal Behavior shows that the p value = value  $0.000 < 0.005$  means there is a significant relationship between knowledge and household waste disposal behavior, in this study as many as 69 respondents who have good knowledge with poor household waste disposal behavior. This is because the behavior of disposing of household waste is only limited to knowing, but not actually practiced.

### The Relationship Between Attitude and Waste Disposal Behavior

Based on the Chi-Square statistical analysis above, the p-value was  $0.002 < 0.05$ , indicating that  $H_{a2}$  was accepted and  $H_{O2}$  was rejected. This indicates a relationship between attitude and household waste disposal behavior in RT 03 and 11, Tengah Padang Village. These results align with those of Alfikri et al., 2018, which showed a relationship between attitude and waste disposal behavior ( $p = 0.004 < 0.005$ ).

Furthermore, respondents' negative attitudes were influenced by several factors, including low levels of knowledge, which encourages negative attitudes toward unfamiliar experiences. Attitude can be interpreted as a form of contact that allows an activity to be seen as actually being carried out. For example, waste disposal is a key factor in shaping community behavior, where people accept suggestions from officials or local community leaders even though they have not yet implemented them.

### Relationship between Facility Availability and Waste Disposal Behavior

Based on the Chi-Square statistical analysis above, the p-value was  $0.000 < 0.05$ . Therefore,  $H_{a3}$  is accepted and  $H_{O3}$  is rejected. It can be concluded that there is a relationship between facility availability and household waste disposal behavior in RT 03 and 11, Tengah Padang Village. These results align with those of Alfikri et al., 2018, which showed a Chi-Square test with a p-value of  $0.001 < 0.005$ .

This suggests a relationship between facility availability and waste disposal behavior. This suggests that the lack of available facilities can influence improper waste disposal behavior. This is evident in the study, which found that the majority of those with negative attitudes tended to engage in improper waste disposal behavior. The results of this study also align with research conducted by (Firmansyah, 2023), which showed a p-value of  $0.002$  and  $0.005$ , indicating a relationship between facility availability and waste disposal behavior. This is in line with the theory that proper facilities and treatment are necessary for TPS to be used to manage waste in a specific manner.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

Based on the research results, the following conclusions can be drawn:

1. Frequency distribution of household waste disposal behavior in RT 03 and 11, Tengah Padang Village, is categorized as poor (33 people (52.4%) and good (30 people (47.6%).
2. Frequency distribution based on knowledge, the highest percentage is in the "poor" category, with 38 people (60.3%).
3. Based on attitude, the highest percentage is in the "poor" category, with 32 people (50.8%).

4. Based on the availability of facilities, the highest percentage is in the "no" category, with 37 people (58.7%).
5. Based on the analysis, there is a significant relationship between knowledge and the behavior of disposing of household waste in the gutter in RT 03 and 11, Tengah Padang Village, with a significance value of  $0.000 < 0.05$ .
6. Based on the analysis, there is a significant relationship between attitude and the behavior of disposing of household waste in the gutter in RT 03 and 11, Tengah Padang Village, with a significance value of  $0.002 < 0.05$ .
7. Based on the results of the analysis, there is a relationship between the availability of facilities and the behavior of throwing household waste into the gutter in RT 03 and 11, Tengah Padang Subdistrict, with a significance value of  $0.000 < 0.05$ .

## Suggestion

### 1. For Respondents

Respondents are expected to dispose of waste appropriately, specifically in the provided trash bins. Separate organic and non-organic waste to facilitate waste management. By not throwing waste down the drain, we can reduce water pollution.

### 2. For Academics

For academics, it is hoped that the results of this study will be utilized effectively by students of the University of Muhammadiyah Bengkulu, particularly those in the Public Health Study Program, as a reference and reading material in the University of Muhammadiyah Bengkulu library to broaden their knowledge and learning materials regarding waste.

### 3. For Relevant Agency Staff

Relevant agency staff are advised to increase public education to raise awareness of clean living behaviors, particularly regarding waste disposal. In addition to education, to create a clean environment, the availability of final disposal facilities (TPA) is essential for the relevant agencies.

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