Community Behavior In Waste Management In Gurabesi Village North Jayapura District And Vim Village District Of Jayapura City

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Abstract: The objective of this study is to provide an overview of community knowledge, attitude and action in waste management. This is a descriptive study that applies a quantitative approach. The study population is all household members in Gurabesi Village North Jayapura District. The research sample was obtained based on a formula developed by Lemeshow which involved 96 people from Gurabesi Village North Jayapura District and 96 people from Vim Village Abepura District. Based on the results of the study, respondents’ knowledge about waste management in Gurabesi Village North Jayapura District was 59.37% and in Vim Village Abepura District was 86.46% both of which were in good category, the attitude of respondents towards waste management in Gurabesi Village North Jayapura District was 100% and in Vim Village Abepura District was 100% both of which were in the fair category, and respondents’ action in waste management in Gurabesi Village North Jayapura District was 85.42% and in Vim Village Abepura District was 84.36% both of which were in fair category. To improve the behavior of better waste management, sanitation or environmental health officers from relevant agencies are expected to provide information through regular and continuous counseling and to socialize good and proper disposal methods in each region including sub-village, village, district and city of Jayapura.

Index Terms: Waste Management, Behavior, Knowledge, Attitude.

1 INTRODUCTION
The problem of waste in Indonesia is a complicated problem to overcome because of a lack of community understanding of the effects that can be caused by waste and a lack of government costs to try to properly dispose of waste. Another factor causing the problem of waste in Indonesia is getting more complicated is the increase in the standard of living of people which is not accompanied by the harmony of knowledge about waste and also the lack of community participation to maintain cleanliness and dispose of waste in its place [1]. Garbage is something that is not used and not liked or something that must be disposed of which generally comes from activities carried out by humans but not the biologically one because human waste does not include waste and is generally solid (used water does not include garbage) [2,3]. Along with the increase in population, income has also increased. An increase in income causes a consumptive lifestyle so that the level of consumption increases which includes food and packaging [4]. Waste generated by someone is getting bigger along with the increasing population. Meanwhile, income for handling waste is still limited. As a result, a lot of garbage is piled or scattered in the area of the village. Moreover, in urban areas, only a portion of the waste is transported by the City Sanitation Department. Garbage that is not transported is piled or scattered and becomes a health problem. Many residents also try to destroy waste by burning it which will produce harmful pollutants [5]. Based on an initial survey conducted by researchers in Gurabesi Village North Jayapura District, the majority of the community chose to dump their garbage into the river considering that most of the population in the Gurabesi Village inhabit the river side. Thus, only a few people manage waste by collecting it in the landfills or containers that have been provided. Thus, these problems are continuously difficult to overcome and have an impact on public health. In addition to causing disease, these wastes can obstruct the flow of water which in turn results in flooding [6,7]. That is the same as the initial survey conducted in Vim Village Abepura District where not all garbage is transported by cleaners. Some of the communities whose settlements are around the Sborhonyi River process waste by collecting it in certain areas, then dumped it into temporary landfills and then transported by officers to the Final Management Site. However, it is undeniable that there are some people who choose to dispose of their waste directly into the river which certainly has an impact on environmental health. In accordance with the problems that have been raised, the authors formulate research problems related to how the description of community behavior in processing waste in two different areas which include Gurabesi Village North Jayapura District and Vim Village Abepura District, which is a picture of urban community behavior.

2 RESEARCH METHOD
2.1 Research Design
The design of this research is survey research. It is a research method with the main aim of making a picture or description of a situation objectively.

2.2 Research Time and Setting
The research settings cover Gurabesi Village North Jayapura District and Vim Village Abepura District. However, due to limited manpower, time and capability, the researchers only took a number of Neighborhood Association that live along the Anafre River for Gurabesi Village North Jayapura District and River of Vim Village Abepura District. Determination of research setting was determined purposively. This research was conducted from May to August 2018.

2.3 Population and Sample
The population of this research is 120 household members in...
Gurabesi Village North Jayapura District as many as 120 families who live around the banks of the Anafre River and household members in Vim Village Abepura District as many as 150 families who live along the side of the Sborhonyi River. Therefore, the total population is 270 households. The number of samples for this study was calculated based on a formula developed by Lemeshow. The sampling was carried out using simple random sampling.

2.4 Data Collection
In this study, the instrument for collecting data was a questionnaire in which the data included:
1. Primary data obtained by interview by distributing questionnaires to respondents.
2. Secondary data obtained from the Office of Vim Village Abepura District and the Office of Gurabesi Village North Jayapura District.

2.5 Measurement Aspects and Research Instrument
Measuring aspects of behavior involves 3 (three) types of variables consisting of knowledge, attitude and action. Retnawati provided a description for classifying it: 1) knowledge, 2) attitude, and 3) action [8].

2.6 Research Instrument
The instrument for data collection is a questionnaire containing questions about community’s knowledge, attitude and action in waste management. Measuring aspects of behavior involves 3 (three) types of variables consisting of knowledge, attitudes and actions.

2.7 Data Analysis and Data Processing Techniques
The data analysis was carried out using descriptive analysis to find out the description of community behavior in waste management in Gurabesi Village North Jayapura District and Vim Village Abepura District. The data processing was performed manually and was presented in the form of a frequency distribution table to determine the level of knowledge, attitude and action of the community in waste management in Gurabesi Village North Jayapura District and in Vim Village in Abepura District.

2.8 Measurement Aspects and Research Instrument
The population of this research is 120 household members in Gurabesi Village North Jayapura District as many as 120 families who live around the banks of the Anafre River and household members in Vim Village Abepura District as many as 150 families who live along the side of the Sborhonyi River. Therefore, the total population is 270 households. The number of samples for this study was calculated based on a formula developed by Lemeshow. The sampling was carried out using simple random sampling.

3 RESULTS

3.1 Respondents’ Knowledge about the Benefits of Waste Management

<table>
<thead>
<tr>
<th>No.</th>
<th>Benefits of Waste Management</th>
<th>Gurabesi %</th>
<th>Vim %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prevent disease, preserve natural resources and prevent interference with natural beauty</td>
<td>70</td>
<td>72.92</td>
</tr>
<tr>
<td>2</td>
<td>Prevents disease</td>
<td>16</td>
<td>16.67</td>
</tr>
<tr>
<td>3</td>
<td>Prevent destruction of environmental sustainability</td>
<td>10</td>
<td>10.41</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>96</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on table 1, respondents’ knowledge about the benefits of waste management is preventing disease, preserving natural resources and preventing disturbance to natural beauty in Gurabesi Village North Jayapura District by 70 respondents (72.92%) and in Vim Village Abepura District by 72 respondents (75%).

3.2 Respondents’ Knowledge Levels on Waste Management

Based on the results of the study, the level of respondents’ knowledge about waste management is in the category as the table below:

<table>
<thead>
<tr>
<th>No.</th>
<th>Knowledge Levels</th>
<th>Gurabesi %</th>
<th>Vim %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good</td>
<td>69</td>
<td>71.87</td>
</tr>
<tr>
<td>2</td>
<td>Fair</td>
<td>18</td>
<td>18.75</td>
</tr>
<tr>
<td>3</td>
<td>Poor</td>
<td>9</td>
<td>9.38</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>96</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on table 2, the level of respondents' knowledge about waste management is in the good category as many as 69 respondents (71.87%), in the fair category as many as 18 respondents (18.75%), in the poor category as many as 9 respondents (9.38%) in Gurabesi Village, North Jayapura District. Meanwhile, in Vim Village Abepura District, the good category was 83 respondents (86.46%) and the poor category was 13 respondents (13.54%).

3.3 Respondents’ Attitudes about Well-Processed Waste

<table>
<thead>
<tr>
<th>No.</th>
<th>Well-Processed Waste Can Prevent Dysentery</th>
<th>Gurabesi %</th>
<th>Vim %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Agree</td>
<td>33</td>
<td>34.38</td>
</tr>
<tr>
<td>2</td>
<td>Agree</td>
<td>41</td>
<td>42.71</td>
</tr>
<tr>
<td>3</td>
<td>Disagree</td>
<td>17</td>
<td>17.70</td>
</tr>
<tr>
<td>4</td>
<td>Strongly Disagree</td>
<td>5</td>
<td>5.21</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>96</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on table 3, the respondents’ attitude towards the statement above, for Gurabesi Village North Jayapura District, the majority agreed of 41 respondents (42.71%) while the Vim Village Abepura District, the majority strongly agreed of 44 respondents (45.83%).

3.4 Respondents’ Attitude Level on Waste Management
Based on table 4, respondents’ attitudes on waste management in general are in the fair category in Gurabesi Village North Jayapura District with 83 respondents (86.46%) and Vim Village Abepura District with 89 respondents (92.71%).

3.5 Respondents’ Action in Disposing Trash to Trash Can

Based on table 5, respondents’ family members in general threw rubbish into trash can in Gurabesi Village North Jayapura District for 73 respondents (76.04%) and Vim Village Abepura District for 73 respondents (76.04%).

3.6 Respondents’ Action Level on Waste Management

Based on table 6, respondents’ action in waste management are in the good category in Gurabesi Village North Jayapura District with 12 respondents (12.50%) and Vim Village Abepura District with 41 respondents (42.71%). Then, it is in the fair category in Gurabesi Village North Jayapura District with 76 respondents (79.17%) and Vim Village Abepura District with 52 respondents (54.17%). Whereas, it is in the poor category in Gurabesi Village North Jayapura District with 8 respondents (8.33%) and Vim Village Abepura District with 3 respondents (3.12%).

4 DISCUSSION

4.1 Respondents’ Characteristics

The results found that the characteristics of respondents varied from age, education, employment and family income. The most age group in Gurabesi Village North Jayapura District is 30-34 years at 26.04%. Whereas, in the Vim Village Abepura District, the highest age group is 35-39 (23.96%). In this case, the average respondent is at the productive age level. The highest level of education of respondents was Academy/ University as much as 5.21% of respondents in Gurabesi Village North Jayapura District and 10.42% of respondents in Vim Village Abepura District. Whereas, the lowest level of education was elementary school consisting of 55.21% of respondents in Gurabesi Village North Jayapura District and 41.67% of respondents in Vim Village Abepura District. In this case, the majority of respondents’ education in Gurabesi Village North Jayapura District and in Vim Village Abepura District is of low educational level. The majority of respondents work as housewives consisting of 68.75% of respondents from Gurabesi Village North Jayapura District and 85.42% of respondents from Vim Village Abepura District. The lowest monthly income of respondents’ family is <IDR 738,000 which consists of 27.08% of respondents from Gurabesi Village North Jayapura District and 10.42% of respondents from Vim Village Abepura District. The highest income of respondents is between IDR 738,000 - IDR 1,500,000 which consists of 57.29% of respondents from Gurabesi Village North Jayapura District and 67.71% of respondents from Vim Village Abepura District. In this case, the respondents’ family income is generally above the current Regional Minimum Wage in North Sumatra (IDR 738,000).

4.2 Respondents’ Knowledge

Respondents’ knowledge about waste management is the extent to which respondents know the benefits of waste management and the impact that garbage has on themselves and the environment. In this case, low education causes a low level of knowledge also since education affects a person in accepting new ideas/ information. If a person’s education is high, he/she will more quickly receive new information. Conversely, low education makes a person slow to accept new ideas/ information. This is in accordance with the theory of innovation proposed by Rogers which states that the group that receives the most ideas/ new information quickly is the pioneer group which usually consists of educated, forward-thinking, better income groups so that they desire to seek higher information [9]. Work does not affect respondents’ knowledge about waste management. It is shown by the percentage of respondents who are knowledgeable that between those working inside and outside the home are not much different. The results showed that the respondents’ knowledge categories in Gurabesi Village North Jayapura District and in Vim Village Abepura District were both in the good category. This is possible since the characteristics of respondents such as age, education, occupation and income in Gurabesi Village North Jayapura District and in Vim Village Abepura District in general are not much different.

4.3 Respondents’ Attitude

Regarding knowledge, respondents’ knowledge is generally in the good category while respondents’ attitude is in the fair category. On the other hand, according to Notoatmodjo, determining the attitude of knowledge, thinking, beliefs and emotions plays an important role. Therefore, in this study, respondents’ knowledge was less influential in determining their attitudes. In other words, this study states that the
respondents’ attitude is at the level of receiving and responding [10]. Receiving means that respondents want and pay attention to the stimulus given and responding means giving answers when they are asked [10].

4.4 Respondents’ Action
Based on the results of the study, respondents’ knowledge in Gurabesi Village North Jayapura District and in Vim Village Abepura District was in the good category while the attitudes and actions were in the fair category. In other words, good knowledge is not followed by good attitude and action. It occurs because good behavior is not only determined by good knowledge, but there are also other factors that influence a person’s behavior such as habit/ tradition, attitude and behavior of community leaders. This is in line with the theory put forward by Green which states that there are 3 three factors that influence behavior consisting of predisposing factors such as habit, tradition, attitude, knowledge, enabling factors such as the availability of facilities, and reinforcing factors such as the attitude and behavior of health workers [10]. In addition to respondents’ characteristics in Gurabesi Village North Jayapura District and in Vim Village Abepura District which are not much different, the similarity of the results of research in Gurabesi Village North Jayapura District and in Vim Village Abepura District can also be caused by geographical influence since the area of Vim Village Abepura District especially the environment VI is a suburb of Jayapura City. Thus, there is still room for the community to manage their own waste by burning, piling in pits, letting garbage pile up in the yard/ garden and there is also throwing garbage into the gutter. Only a small portion of the waste is transported by cleaners so that this type of behavior is not much different from the behavior of people in urban areas such as Gurabesi Village North Jayapura District. In this case, waste management in Gurabesi Village North Jayapura District is also carried out by burning, letting garbage accumulate in the yard/ garden, and throwing garbage into the gutters. Thus, we can state that the common knowledge, attitude and action of the community in waste management in Gurabesi Village North Jayapura District and in Vim Village Abepura District are also caused by the geographical conditions of the two regions which are not much different. It is due to the reason that Vim Village Abepura District geographically is an area that borders directly with the village area (tends to be a suburb).

6 REFERENCES

5. CONCLUSION
Respondents’ knowledge in Gurabesi Village North Jayapura District and in Vim Village Abepura District are equally in the good category. This is possible since the characteristics of respondents such as age, education, occupation and income in Gurabesi Village North Jayapura District and in Vim Village Abepura District in general are not much different. Respondents’ attitude is at the level of receiving and responding. Receiving means that the respondent is willing and attentive to the stimulus given and responding means giving an answer when they are asked. The results found that respondents’ knowledge in Gurabesi Village North Jayapura District and in Vim Village Abepura District was in the good category while attitude and action were in the fair category. In other words, good knowledge is not followed by good attitude and action. It is because good behavior is not only determined by good knowledge but there are also other factors that affect a person’s behavior such as habit/ tradition, attitude and behavior of community leaders.