

## The Role of Housewives in Handling the Waste Problem in Pekanbaru City

Willya Achmad

Universitas Pasundan, Bandung, Indonesia

---

### ARTICLE INFO

**Keywords:**  
*Participation,  
Housewives,  
Waste Handling.*

---

Email :  
[willyaachmad@unpas.ac.id](mailto:willyaachmad@unpas.ac.id)

---

### ABSTRACT

Waste management in Pekanbaru City is a classic problem that has not been resolved because of the behavior or public awareness that is still lacking in environmental cleanliness. This waste generally comes from the activities of residents who litter, both organic and inorganic waste in the form of drink bottles, plastic food boxes, and other plastic materials. The purpose of this study was to determine the role of housewives in Pekanbaru City in dealing with waste problems. This study uses a quantitative approach with a cross sectional research design. The results showed that in general the role of housewives in handling waste in the village of Kampung Baru, Senapelan district, Pekanbaru City, it can be seen that most housewives behave badly in waste management, namely 47 housewives (52.8%), good knowledge of about 71 housewives (79.8%), positive attitude as many as 81 housewives (91.0%), inadequate infrastructure facilities as many as 62 housewives (69.7%), local regulations are not implemented as many as 50 housewives (56.2%).

Copyright © 2023 Eduhealth Journal. All rights reserved is Licensed under a [Creative Commons Attribution- NonCommercial 4.0 International License \(CC BY-NC 4.0\)](https://creativecommons.org/licenses/by-nc/4.0/)

### 1. INTRODUCTION

One of the environmental problems that is currently happening is the problem of waste, which is increasing day by day along with the increase in population and the development of people's lifestyles (Prihatin, 2020). Garbage is one of the causes of natural and environmental damage that has a negative impact on society, especially health, environmental and aesthetic impacts (Mahyudin, 2017). Heaps of garbage on vacant lands can cause a bad smell and invite flies which can then become vectors of digestive diseases. Garbage that is thrown away or washed into the river so that when the rainy season comes it can cause flooding. Reception of water from sewage also affects the quality of the soil, so that the soil around the landfill can be polluted (Hasibuan, 2016). Likewise, plastic waste that is not easily decomposed by the soil will result in soil pollution. Waste that is not managed properly, not only has a negative impact on health and environmental sustainability, but also gives a negative impression when viewed from an aesthetic or beauty point of view. Garbage scattered on the road, yard, gives the environment a 'slum' impression (Simanjorang, 2014).

According to Ariyanto & Marom (2021), waste management requires the active participation of individuals and community groups in addition to the government's role as a facilitator. The public's indifference to waste will result in environmental quality degradation which will affect the quality of life or community living in an area (Rahman et al, 2020). The degradation of environmental quality is triggered by people's behavior that is not friendly to the environment, such as throwing garbage in water bodies. Mulasari et al (2016) stated that the waste problem can be overcome if the community and the government are able and have the will to carry out the duties and obligations of waste management with full responsibility. The form of community involvement as the party that produces the largest proportion of waste, can be implemented by cultivating waste management behavior from an early age from the household, as the lowest structure in urban waste management (Wibowo, 2010). Furthermore, Ismawati (2013) states that urban waste management that does not involve the community as waste producers will exacerbate the role of the Government as a provider of urban waste services. Domestic waste that is not handled properly will have an impact on human health, economic conditions and high costs for managing or improving the environment and infrastructure or creating external costs.

Basically, good waste management is the responsibility of every individual human who produces waste, in this case solid waste, which can be produced by households, industrial companies, offices, factories, markets, and so on. So that it is in accordance with the principle that waste must be managed as close as possible to the source of the waste (Kurniawan & Santoso, 2020). Therefore, various elements have the responsibility to participate in waste management, especially household elements, which according to various sources are the largest producers of solid waste (Dewi, 2020).

Along with the rapid rate of population growth and development in the city of Pekanbaru, threats to natural resources and ecosystems are increasing as well. One of the serious threats to the integrity of natural resources and ecosystems and aesthetic disturbances is the presence of waste that is simply dumped into the surrounding environment and along rivers. This condition is also supported by human behavior that allows for an increase in waste production which reaches a stage where waste production is more dominant than the ability to destroy the generated waste. With these facts, it is necessary to realize that community participation plays an important role in efforts to solve health problems, especially waste because some of these problems arise due to the behavior of the community itself.

The problem of waste in the city of Pekanbaru is a classic problem that has not been resolved because of the behavior or public awareness that is still lacking in environmental cleanliness. This waste generally comes from the activities of residents who litter both organic and inorganic waste in the form of drink bottles, plastic food boxes, and other plastic materials (Lubis & Erman, 2017). The government does not provide waste collection facilities (TPS) in the city of Pekanbaru so that the behavior pattern of the community in handling their waste is by burning, even disposing of their waste directly to the environment. This happened because of the lack of socialization from the government regarding the handling of waste that meets the requirements, the limited land for final waste processing, and the absence of a waste bank unit (Rielasari 2018). Therefore, a complete waste management process is needed with the concept of "Waste Bank" in the city of Pekanbaru as a step to reduce the increase in the volume of waste generated from human activities, so that in the future these factors can be accommodated in the planning of waste facilities in the area. (Johar & Manihuruk, 2021).

Community participation in this case by housewives in the city of Pekanbaru in the process of handling waste still adheres to the pattern of waste produced being disposed of or burned. Therefore, the responsibility for managing household waste generated from family activities can be carried out by housewives (Selomo et al, 2016). The activities carried out by housewives are closely related to family activities, especially in the kitchen. From these activities, waste is generated which will be managed by housewives. The management carried out by housewives on the waste produced only reaches the stage of temporary storage. Housewives should be able to handle their waste upstream or at their own source through sorting and reuse or through waste bank activities which currently only a few regions/cities have implemented (Putra et al, 2013).

Many factors influence housewives in managing or handling the resulting waste. One of these factors is the level of knowledge of housewives in waste management. Differences in a person's level of knowledge can be influenced by the level of education, environment, information, experience which in turn affects a person's attitudes and actions in decision making, especially in terms of handling household waste so that this difference in knowledge level results in differences in the way household waste is handled (Sitohang, 2003). 2022).

For this reason, here the author wants to see how far the knowledge and response of housewives to waste because garbage, especially household waste itself, causes environmental pollution around. For this reason, from the problems that the researchers found above, the researchers will examine the role of housewives in dealing with waste problems in Pekanbaru City.

## 2. METHOD

This study uses a cross sectional research design (7) for 6 months from January to June 2022. The population in this study refers to the number of heads of families in RW 1 Kampung Baru Village with a total of 775 families with a total sample of 89 housewives with the inclusion criteria of housewives who are not working, healthy, settled and in accordance with KTP/KK. Samples were taken using proportional random sampling technique according to inclusion and proportional criteria. The

proportions here can be seen in table 1 below, which takes 7 RTs in RW 1 in Kampung Baru, Senapelan District, Pekanbaru City which is directly adjacent to the Siak riverbank. The instrument used in the form of a questionnaire, the data were analyzed by chi-square test.

Data from the variables of knowledge, attitudes, infrastructure, local regulations and waste management behavior used a questionnaire. Data analysis using the Chi Square test is a one-way relationship between the variable data of knowledge, infrastructure and local regulations with waste management behavior. While the Kolmogorov Smirnov alternative test analyzed the data on the attitude variable with the waste management behavior variable.

### 3. RESULTS AND DISCUSSION

The results of the research are univariately displayed through a table display containing the frequency distribution and percentage of each variable studied, as shown in the table below:

Table 1 Frequency Distribution of Knowledge, Attitudes, Infrastructure, Regional Regulations, and Behavior of Housewives' Waste Management in RW 1 Kampung Baru Village

Variable	N	%
<b>Knowledge</b>		
Not enough	6	6.7%
Enough	10	11.2%
Well	73	82.1%
<b>Attitude</b>		
Negative	7	7.9%
Positive	84	92.1%
<b>Facilities and infrastructure</b>		
Inadequate	64	71.9%
Adequate	25	28.1%
<b>Local regulation</b>		
Not Implemented	51	57.3%
Implemented	38	42.7%
<b>Waste Management Behavior</b>		
Bad	46	51.7%
Well	43	48.3%

Based on the data in table 1 regarding the knowledge variable, it is known that most of the respondents have good knowledge. Based on the results of the study, it can be concluded that many respondents do not know that burning garbage is a wrong behavior in managing household waste. The results of the frequency distribution of the attitude variable are known that most of the respondents have a positive attitude. It can be said that the respondents realized that they should not build their own garbage collection even though the temporary trash can is far from their neighborhood. In the infrastructure variable, it is known that most of the respondents stated that the facilities and infrastructure were inadequate. From the results of the study, the facilities provided by the government such as trash cans have not been distinguished by type.

Judging from the implementation of the regional regulations variable, it is known that most of the respondents stated that the regional regulations were not implemented. Based on the results of research and in the field, there is still a lack of socialization about local regulations to the community, making citizens clear and real in violating regulations in waste management. Meanwhile, on the variable of waste management behavior, it is known that most of the respondents have bad behavior in waste management. It can be assumed that not all respondents collect waste at home which is then transported to TPS because not all respondents do waste management. There are respondents who collect waste in the trash cans provided by the government, there are those who collect in the incinerator that each respondent makes themselves and then burns the waste and some throws the waste directly into the river. Bivariate research results are displayed through a table display containing the frequency

distribution and the value of the relationship between each independent variable and the waste management variable, as shown in the table below:

Table 2. Relationship of Knowledge, Attitudes, Infrastructure, Regional Regulations with Waste Management Behavior

Variable	Waste Processing Behavior				p-Value
	Bad		Well		
	N	%	N	%	
<b>Knowledge</b>					
Less and Enough	13	72.2%	5	27.8%	0.035
Well	32	45.1%	39	54.9%	
<b>Attitude</b>					
Negative	7	87.5%	1	12.5%	0.864
Positive	40	49.4%	41	50.6%	
<b>Infrastructure</b>					
Inadequate	47	75.8%	15	24.2%	0.001
Adequate	1	3.9%	26	96.1%	
<b>Local regulation</b>					
Not Implemented	41	82%	9	18%	0.001
Implemented	6	15.4%	33	84.6%	

It can be seen in table 2 that the respondents who have less and sufficient knowledge are 18 respondents. Most of the housewives who have less knowledge have bad behavior in household waste management, namely 13 housewives (72.2%) and housewives with sufficient knowledge of 71 housewives. A total of 32 housewives (45.5%) have bad behavior in household waste management. Then from the results of the statistical test in table 2 using the Chi Square test, it was found that  $p\text{-value} = 0.035 < 0.05$ , the null hypothesis of this study was rejected, which means that there is a significant relationship between knowledge and the behavior of housewives in household waste management in Indonesia. RW 1 Kelurahan Kampung Baru Senapelan Pekanbaru City. The results of this study are in line with research from Setyowati and Mulasari (11) in a study entitled "Knowledge and Behavior of Housewives in Plastic Waste Management" with the knowledge variable obtained  $p\text{-value} = 0.000 < 0.05$  which states that there is a relationship between knowledge with plastic waste management behavior. In theory, some housewives who have less knowledge, but try to apply the limited knowledge they have in everyday life. Another possibility is that the group carries out waste management even though they lack knowledge, because they have been used to it since childhood or the culture applied in the family without knowing the nature of the behavior.

Table 2 shows that the respondents who have a negative attitude are 8 respondents with bad behavior in waste management as many as 8 respondents (87.5%), while respondents who have a positive attitude are 81 respondents with bad behavior in waste management as many as 41 respondents (49.4 %). Then from the results of statistical tests in table 2 using the Kolmogorov Smirnov test,  $p\text{-value} = 0.864 > 0.05$ , the null hypothesis of this study is accepted, which means that there is no significant relationship between knowledge and the behavior of housewives in household waste management. in RW 1, Kampung Baru Senapelan Village, Pekanbaru City. The results of the study on attitudes with household waste management actions for Environment II Istiqlal Village, Wenang District, Manado City are in line with this study, which obtained  $p\text{-value} = 0.51 > 0.05$  which stated that there was no significant relationship (12). Attitudes are not brought from birth but are formed or learned throughout the development in relation to their objects. Attitudes can also change, therefore attitudes can be learned (13). In theory, it can be said that the attitude and behavior of housewives in managing household waste is not related. This is obtained from the results of research which shows that the attitude of mothers is dominant in the positive category. However, there are still mothers who have a positive attitude but have bad waste management behavior. This is due to other factors such as environmental factors, facilities and infrastructure factors that do not support waste management, the

lack of strict sanctions from related leaders against perpetrators who do not carry out waste management by throwing garbage in rivers and so on.

Table 2 shows that the respondents who stated that the facilities and infrastructure were inadequate were 62 respondents and most of them had bad behavior in household waste management, namely 47 respondents (75.8%). While the respondents who stated that the facilities and infrastructure were adequate to manage waste were 26 respondents and all of them had good behavior in managing household waste. Based on the results of the statistical test in table 2 using the Chi Square test, it was found that  $p\text{-value} = 0.000 \leq 0.05$ , the null hypothesis of this study was rejected, which means that there is a significant relationship between facilities and infrastructure and the behavior of housewives in household waste management. in RW 1, Kampung Baru Senapelan Village, Pekanbaru City. The results of this study are in line with research in Environment IV of Helvetia Village, Medan Helvetia District in 2017 regarding the act of disposing of waste with the variable facilities and infrastructure  $p\text{-value} = 0.001 < 0.05$  which states that there is a relationship between the availability of facilities and the act of disposing of waste. One of the factors that influence behavior is enabling factors. Medium is a message, meaning the availability of a trash can (medium) indirectly gives a message to the people around it to put any trash in it so that the environment becomes clean. The existence of facilities and infrastructure will facilitate and assist in waste management. With the trash can but there is no infrastructure to transport the waste to temporary shelters, which means that there is no optimal waste management because the infrastructure does not support it because the facilities and infrastructure must support each other to achieve optimal and comprehensive household waste management. In theory, this means that in the absence of facilities, it can affect the act of disposing of waste improperly. This can be seen from the results of the study where the majority who have a negative attitude tend to take more actions to throw garbage in a bad manner.

In table 2 it can be seen that the respondents who stated that local regulations were not implemented were 50 respondents and most of them had bad behavior in household waste management, namely 50 respondents (82%). While respondents who stated that local regulations were implemented to manage waste were 39 respondents and most of them had good behavior in household waste management, namely 33 respondents (84.6%). Based on the results of the statistical test in table 2 using the Chi Square test, it was found that  $p\text{-value} = 0.000 \leq 0.05$ , the null hypothesis of this study was rejected, which means that there is a significant relationship between local regulations and the behavior of housewives in managing household waste in Indonesia. RW 1 Kelurahan Kampung Baru Senapelan Pekanbaru City. The results of this study are in line with the knowledge variable about Regional Regulation No. 6 of 2015, the  $p\text{-value} = 0.040 \leq 0.05$  which states that there is a relationship between knowledge of Regional Regulation no. 8 of 2014 with the act of disposing of garbage. Enforcement of this law will have a positive impact on better household waste management. In the context of the environment, the law is expected to be a guide so that our way of life is based on the principles of environmental sustainability. In theory, it can be said that between local regulations and the behavior of housewives in managing household waste, this relationship is obtained from research results which show that more dominant facilities and infrastructure are not implemented and respondents have bad behavior in household waste management. However, there are still respondents who state that local regulations are implemented and respondents behave badly in household waste management. This is due to other factors such as the ineffective implementation of local regulations.

#### 4. CONCLUSION

Most housewives behave badly in waste management, namely 47 housewives (52.8%), good knowledge as many as 71 housewives (79.8%), positive attitude as many as 81 housewives (91.0%). , inadequate infrastructure as many as 62 housewives (69.7%), local regulations are not implemented as many as 50 housewives (56.2%). There is a significant relationship on the behavioral variables with knowledge, infrastructure, local regulations and there is no significant relationship on attitudes. There needs to be an increase in socialization to the public regarding the Pekanbaru City Regional Regulation Number 08 of 2014 concerning solid waste, in which the community is obliged to carry out waste management and carry out more optimal and comprehensive supervision in the community. Changes in



attitude can occur if there is an improvement in the environment and supporting infrastructure, but it is followed by sanctions in accordance with applicable regulations when violating the regulations contained in Regional Regulation no. 08 of 2014, so that people are disciplined not to do waste management.

#### REFERENCES

- [1] A Ismawati, A. I. (2013). Gambaran Partisipasi Masyarakat Dalam Pengelolaan Sampah Pada Bank Sampah UKM Mandiri Di Rw 002 Kelurahan Tamamaung, Kecamatan Panakkukang, Kota Makassar (Doctoral dissertation, Universitas Islam Negeri Alauddin Makassar).
- [2] Ariyanto, E. D., & Marom, A. (2021). Analisis Peran Stakeholder Dalam Program Pilah Sampah Di Kelurahan Mangkang Kulon, Kecamatan Tugu, Kota Semarang. *Journal of Public Policy and Management Review*, 10(2), 221-239.
- [3] Dewi, N. M. N. B. S. (2020). Kajian Partisipasi Masyarakat Dusun Bone Putih Dalam Pengelolaan Sampah. *Sosial Sains Dan Teknologi*, 1(1), 32-40.
- [4] Hasibuan, R. (2016). Analisis dampak limbah/sampah rumah tangga terhadap pencemaran lingkungan hidup. *Jurnal Ilmiah Advokasi*, 4(1), 42-52.
- [5] Johar, O. A., & Manihuruk, T. N. S. (2021). Penyuluhan Peningkatan Kesadaran Hukum Masyarakat Terhadap Pengelolaan Sampah Di Kota Pekanbaru Menurut Peraturan Daerah Kota Pekanbaru Nomor 4 Tahun 2000 Tentang Retribusi Dan Kebersihan. *Dinamisia: Jurnal Pengabdian Kepada Masyarakat*, 5(6), 1611-1617.
- [6] Kurniawan, D. A., & Santoso, A. Z. (2020). Pengelolaan Sampah di daerah Sepatan Kabupaten Tangerang. *ADI Pengabdian Kepada Masyarakat*, 1(1), 31-36.
- [7] Lubis, H., & Erman, E. (2017). Penyediaan Pelayanan Publik Dalam Persoalan Sampah Di Kota Pekanbaru Tahun 2014-2016 (Doctoral dissertation, Riau University).
- [8] Mahyudin, R. P. (2017). Kajian permasalahan pengelolaan sampah dan dampak lingkungan di TPA (Tempat Pemrosesan Akhir). *Jukung (Jurnal Teknik Lingkungan)*, 3(1).
- [9] Mulasari, S. A., Husodo, A. H., & Muhadjir, N. (2016). Analisis situasi permasalahan sampah kota Yogyakarta dan kebijakan penanggulangannya. *KEMAS: Jurnal Kesehatan Masyarakat*, 11(2), 259-269.
- [10] Prihatin, R. B. (2020). Pengelolaan Sampah di Kota Bertipe Sedang: Studi Kasus di Kota Cirebon dan Kota Surakarta. *Aspirasi: Jurnal Masalah-Masalah Sosial*, 11(1), 1-16.
- [11] Putra, H. P., Taufiq, A. R., & Juliani, A. (2013). Studi Hubungan antara Tingkat Pendidikan dan Pendapatan Keluarga terhadap Sikap dalam Pengelolaan Sampah Rumah Tangga (studi kasus di Desa Condongcatur, Depok, Sleman, Yogyakarta). *Jurnal Sains & Teknologi Lingkungan*, 5(2), 91-101.
- [12] Rahman, R., Sididi, M., & Yusriani, Y. (2020). Pengaruh Pengetahuan Dan Sikap Terhadap Partisipasi Masyarakat Dalam Pengelolaan Sampah Di Kampung Nelayan Untia. *Jurnal Surya Muda*, 2(2), 119-131.
- [13] Rielasari, I. (2018). Pengelolaan Sampah Kota Pekanbaru (Doctoral dissertation, Riau University).
- [14] Selomo, M., Birawida, A. B., Mallongi, A., & Muammar, M. (2016). Bank sampah sebagai salah satu solusi penanganan sampah di Kota Makassar. *Media Kesehatan Masyarakat Indonesia*, 12(4), 232-240.
- [15] Simanjorang, E. F. S. (2014). Dampak Manajemen Pengelolaan Sampah terhadap Masyarakat dan Lingkungan di TPAS Namo Bintang Deliserdang. *Ecobisma (Jurnal Ekonomi, Bisnis Dan Manajemen)*, 1(2), 34-47.
- [16] Sitohang, T. (2022). Perilaku Ibu Rumah Tangga Dalam Pengelolaan Sampah. *Al-Asalmiya Nursing: Journal of Nursing Sciences*, 11(1).
- [17] Wibowo, H. E. (2010). Perilaku masyarakat dalam mengelola sampah permukiman di Kampung Kamboja Kota Pontianak (Doctoral dissertation, UNIVERSITAS DIPONEGORO).