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The Effect of Environmental Knowledge, Local Wisdom, and Attitudes Towards Community Behavior in Managing Waste in Large-Type Housing in Soppeng Regency

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Abstract: The purpose of this study was to determine: (1) waste management behavior, environmental knowledge, local wisdom, and attitudes towards the community environment in a large-type housing complex in Soppeng Regency, (2) the influence of environmental knowledge, local wisdom, and attitudes towards the environment itself alone and jointly on the behavior of the community in managing waste in a large-type housing complex in Soppeng Regency. This type of research is correlational research. The research is located in a large type housing complex in Soppeng Regency. The population of this study is the head of the family who lives in a large type housing complex in Soppeng Regency. The sample area is one large type of housing complex selected by purposive sampling method. Respondents of 50 families were selected by systematic random sampling method. The dependent variable of the study is the behavior of managing waste (Y). The independent variables (X) are: (a) environmental knowledge (X1); (b) local wisdom (X2); and (c) environmental attitude (X3). The data analysis technique used are descriptive statistical analysis and infrensial statistical analysis. The analytical model used are simple regression and multiple regression. The results showed that: (1) waste management behavior, environmental knowledge, local wisdom, and attitudes towards the community environment in a large type housing complex in Soppeng Regency were classified as low, (2) partially and jointly, environmental knowledge, local wisdom, and environmental attitudes have a very significant effect and give a real contribution to people's behavior in managing waste in a large type housing complex in Soppeng Regency.

Keywords: Garbage, Knowledge, Behavior, Attitude, and Local Wisdom

1. Introduction

Community activities in the Besar type housing complex in Soppeng Regency in relation to the physical environment of housing and the social environment actually produce waste. If this waste is not managed properly, it will reduce the quality of the environment. Behavioral theory by Hines, et al, [1] and Hungerford and Volk [2], who are better known as environmentally responsible behavior state that behavior is influenced by: (a) personal factors, including attitudes, and

motivation; (b) knowledge of the issue; (c) action skills, (d) skills to apply knowledge, and (e) other situational factors.

The Law of the Republic of Indonesia No. 32 Year [3] concerning Environmental Protection and Management explains that the environment consists of biotic components and abiotic components where the environment needs to be maintained and preserved. Furthermore, the Environmental Management Act (UUPLH) No. 23 Year [4] Article 3 states that environmental management which is carried out with the principle of state responsibility, the principle of sustainability,

and the principle of benefit is aimed at realizing sustainable development that is environmentally sound in the context of developing Indonesian people as a whole and the development of the entire Indonesian community who have faith and fear God Almighty.

The purpose of this study was to determine: (1) waste management behavior, environmental knowledge, local wisdom, and attitudes towards the community environment in a large type housing complex in Soppeng Regency, (2) the influence of environmental knowledge, local wisdom, and attitudes towards the environment itself. -alone and collectively on the behavior of the community in managing waste in a large-type housing complex in Soppeng Regency.

2. Theoritical Review

Waste which in this case is referred to as solid waste is all objects originating from human or animal activities that are unwanted or that are disposed of for destruction Tchobanoglous, et al. [5]. Adibroto, Wahyono and Gratissari [6] suggested that waste is a by-product of human activities and needs to be managed properly. Azwar [7] explains that waste is part of something, the leftovers of materials that are not used, disliked or something that must be thrown away, because it has no economic value.

Notoatmodjo [8] states that behavior is defined as an organism's action on its environment. Sarwono [9] states that behavior is an action of an organism that can be observed directly or indirectly. Jiang, et al., [10] stated that behavior is an individual action or reflection caused by psychological aspects, such as knowledge, perception, intention, desire and attitude. Furthermore, it is said that behavior is influenced by internal factors and external factors.

Kusrini [11], Bloom [12] basically state that knowledge is memory or what is known on materials that have been studied based on scientific reasoning. Suriasumantri [13] states that knowledge is essentially all what we know about a particular object, including science. So science is part of the knowledge that is known by humans. Furthermore, Suriasumantri [13] states that knowledge consists of three components, namely cognitive, affective, and psychomotor components.

In Law no. 32 of 2009 [3] concerning the Protection and Management of the Environment, it is stated that the environment is a unitary space, and all objects, forces, conditions and living things, including humans and their behavior that affect the survival and welfare of humans and other living creatures. Soerjani, et al [14], stated that the environment is a living system where there is human intervention in the ecosystem order.

Hamzah [15], states that local wisdom is a source of knowledge that is dynamically organized, developed and passed on by certain populations that is integrated with their understanding of the surrounding nature and culture. Adyana [16], basically states that local wisdom is a local advantage that relies on values, norms, ethics, knowledge, technology, and behavior possessed by a community group and is traditionally institutionalized which is used to overcome life and living problems. Marfai [17] describes the characteristics of local wisdom as follows: (1) able to survive against foreign culture, (2) has the ability to accommodate elements of foreign culture, (3) has the ability to integrate elements of foreign culture into the original culture, (4) has the ability to control, and (5) is able to provide direction to cultural development.

Azwar (2012) states that attitude is a tendency to act on environmental objects based on feelings and thoughts. Abu, [18] states that attitude is a tendency to respond and behave in a certain way towards certain objects. Mar'at [19] states that the attitude component consists of: components of cognition, affection, and conation.

3. Material and Methods

This research is classified as a correlational study located in a large-type housing complex in Soppeng Regency. The population of this research is the people who live in the large type housing complex in Soppeng Regency. The sample area is a large type housing complex selected by purposive sampling method. Respondents as many as 50 families were selected based on the random sampling method and referred to the Arikunto [20].

The research variables consist of: (1) the dependent variable (Y), and (2) the independent variable (X). The dependent variable is the behavior of the community in managing waste (Y). The independent variables are: (a) environmental knowledge (X1); (b) local wisdom (X2); and (c) environmental attitude (X3). The data analysis techniques used were: descriptive statistical analysis, and inferential statistical analysis. The analytical model used is simple regression and multiple regression.

4. Results

4.1. Description of Environmental Knowledge

The results of the descriptive statistical analysis of the knowledge of the people who inhabit the large type houses in Soppeng Regency, from the 15 questions on the True – False model of environmental knowledge are as follows. Average value=5.13. Your maximum=8, and minimum=2. The average value is in the low category. Thus, it can be concluded that knowledge about the environment of the people who inhabit the large type in Soppeng Regency is relatively low.

4.2. Description of Local Wisdom

The results of the descriptive statistical analysis of local wisdom of the people who live in large type houses in Soppeng Regency, from 15 true-false questions are as follows. The mean value=5.21. Your maximum=9, and minimum=2. The average value is in the low category. Thus, it can be concluded that the local wisdom of the people who live in large type houses in Soppeng Regency is low.

4.3. Description of Attitudes to the Environment

The results of the descriptive statistical analysis of attitudes towards the community environment that inhabit the large type in Soppeng Regency, from 15 items of attitude statements adopted from the Likert model are as follows. The mean value=34.75. Your maximum=48, and minimum=21. The average value is in the low category. Thus, it can be concluded that the attitude towards the environment of the occupants of the large type of house in Soppengdi Regency is low.

4.4. Description of Waste Management Behavior

The results of the descriptive statistical analysis of the behavior of managing waste in the community who inhabit the large type house in Soppengdi Regency, from 15 behavioral observations are as follows. The mean value=35.76. Your maximum=48, and minimum=24. The average value is in the low category. Thus, it can be concluded that the behavior of managing large-type household waste in Soppeng Regency is low.

4.5. Effect of Environmental Knowledge (X1) on Waste Management Behavior (Y)

The results of a simple regression analysis of the effect of environmental knowledge on people's behavior in managing waste that inhabit large-type houses in Soppeng Regency are presented in Table 1.

Table 1. Effect of X1 on Y.

NOVAᵃ

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3624.32	1	3624.32	583.62	.000ᵇ
	Residual	297.88	48	6.21		
	Total	3922.20	49			

a. Dependent Variable: Y
b. Predictors: (Constant), X1
R=.948ᵃ
R Square=.8987
B=4.14

In Table 1, it can be seen that the significance of F=0.000<0.05 means that environmental knowledge has an effect on people's behavior in managing waste. Correlation coefficient (R)=0.948. This figure shows that environmental knowledge has a very strong relationship with community behavior in managing waste. The coefficient of determination (R square) = 0.8987. This figure shows that the influence of environmental knowledge on people's behavior in managing waste is 89.87%. This influence is very significant. Contribution (B) of environmental knowledge to community behavior in managing waste=4.14. This figure shows that every time environmental knowledge is increased, the behavior of the community in managing waste will increase by 4.14.

4.6. The Influence of Local Wisdom (X2) on Waste Management Behavior (Y)

The results of a simple regression analysis of the influence of local wisdom on people's behavior in managing waste that inhabit large-type houses in Soppeng Regency are presented in Table 2.

Table 2. Effect of X2 on Y.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3744.56	1	3744.56	548,25	.000ᵇ
	Residual	327.91	48	6,83		
	Total	4072,47	49			

a. Dependent Variable: Y
b. Predictors: (Constant), X2
R=.889
R Square=.790
B=3,43

In Table 2 it can be seen that the significance of F=0.000<0.05 means that local wisdom has an effect on people's behavior in managing waste. Correlation coefficient (R)=0.889. This figure shows that local wisdom has a very strong relationship with community behavior in managing waste. The coefficient of determination (R square)=0.790. This figure shows that the influence of local wisdom on people's behavior in managing waste is 79%. This influence is very significant. Contribution (B) of local wisdom to community behavior in managing waste=3.43. This figure shows that every time local wisdom is improved, the behavior of the community in managing waste will increase by 3.43.

4.7. Influence of Environmental Attitudes (X3) on Waste Management Behavior (Y)

The results of simple regression analysis of the influence of environmental attitudes on people's behavior in managing

waste that inhabit large-type houses in Soppeng Regency are presented in Table 3.

Table 3. *Effect of X3 on Y.*

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	3379.59	1	3379.59	509.74	.000[b]
1	Residual	318.32	48	6.63		
	Total	4541.09	49			

a. Dependent Variable: Y
b. Predictors: (Constant), X3
R=.847
R Square=.7174
B=2,87

In Table 3 it can be seen that significantly F=0.000<0.05, this means that environmental attitudes have an effect on people's behavior in managing waste. Correlation coefficient (R)=0.847. This figure shows that environmental attitudes have a very strong relationship with community behavior in managing waste. The coefficient of determination (R square)=0.7174. This figure shows that the influence of environmental attitudes on people's behavior in managing waste is 71.74%. This influence is very significant. Contribution (B) of environmental attitudes towards community behavior in managing waste=2.87. This figure shows that every time environmental attitudes are improved, people's behavior in managing waste will increase by 2.87.

4.8. The Effect of Environmental Knowledge (X1), Local Wisdom (X2), and Environmental Attitudes (X3) Together on Waste Management Behavior (Y)

The results of the multiple regression analysis of the combined effect of environmental knowledge, local wisdom, and environmental attitudes on community behavior in managing waste that inhabit large-type houses in Soppeng Regency, are presented in Table 4.

Table 4. *Effect of X1, X2, and X3 Together on Y.*

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	3542.78	3	1180,93	584.62	.000[b]
1	Residual	92.74	46	2.02		
	Total	3635.52	49			

a. Dependent Variable: Y
b. Predictors: (Constant), X3, X1, X2
R=.958
R Square=.9177
Beta X1=4,65
Beta X2=3,11
Beta X3=2,56

In Table 4 it can be seen that the significance of F=0.000<0.05 means that environmental knowledge, local wisdom, and environmental attitudes have a joint effect on people's behavior in managing waste. Correlation coefficient (R)=0.958. This figure shows that environmental knowledge, local wisdom, and environmental attitudes together have a very strong relationship to community behavior in managing waste. The coefficient of determination (R square)=0.9177. This figure shows that the total influence of environmental knowledge, local wisdom, and environmental attitudes on community behavior in managing waste is 91.77%. This influence is very significant.

The contribution of environmental knowledge (Beta X1) to people's behavior in managing waste while still paying attention to X2 and X3=4.65. Contribution of local wisdom (Beta X2) to community behavior in managing waste while still paying attention to X1 and X3=3.11. The contribution of environmental attitudes (Beta X3) to people's behavior in managing waste while still paying attention to X1 and X2=2.56. Thus the contribution of the three independent variables to the dependent variable is 10.32. Therefore, if environmental knowledge, local wisdom, and environmental attitudes are increased once, the behavior of the community in managing waste will increase by 10.32.

5. Discussion

The environmental knowledge of the people who live in large type houses in Soppeng Regency is low. This is because they do not get enough education about the environment. In addition, they have less interaction with the physical environment of the settlement, which is better. Environmental knowledge has a positive, significant, and gives a real contribution to the behavior of managing waste. Therefore, this environmental knowledge needs to be improved so that it can make a greater contribution to behavior.

The local wisdom of the people who live in large type houses in Soppeng Regency is low. This is because they no longer care about the natural wisdom and cultural wisdom that their predecessors had. In addition, they do not get counseling about the local wisdom of the Bugis tribe related to nature and culture. Local wisdom has a very positive, significant effect and contributes to the behavior of managing waste. Therefore, this local wisdom needs to be explored again so that it makes a greater contribution to behavior.

The environmental attitude of the people who inhabit the large type in Soppeng Regency is low. This is because they lack knowledge about the environment and local wisdom. In addition, they interact less with the physical environment and have better social interactions. Environmental attitudes have a positive, significant, and make a real contribution to people's behavior in managing waste. Therefore, this attitude needs to be improved so that it makes a greater contribution to behavior.

Partially and jointly environmental knowledge, local wisdom, and environmental attitudes affect the behavior of the community in managing waste. These three variables also make a significant contribution to behavior. Therefore, environmental knowledge, local wisdom, and environmental attitudes need to be fostered so that they increase. The increase in these three variables makes people's behavior in managing waste more and better. Good waste management in large-type residential complexes will make a significant contribution to the overall quality of the housing environment in Soppeng Regency.

6. Conclusion

The results showed that: (1) waste management behavior, environmental knowledge, local wisdom, and attitudes towards the community environment in a large type housing complex in Soppeng Regency were classified as low, (2) partially and jointly, environmental knowledge, local wisdom, and environmental attitudes have a very significant effect and give a real contribution to people's behavior in managing waste in a large type housing complex in Soppeng Regency.

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