

BEHAVIOR CHANGE SOCIETY AGAINST SLUM SANITATION ENVIRONMENT (CASE STUDY OF MAKASSAR)

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The indicators purpose of this study is change of people behavior towards environmental sanitation slums area. This research is a quantitative research by using pretest-posttest control group design. There are two groups, one group as control untreated and one group (experimental) that are subjected too, as for the number of samples taken from two groups 40 respondents were randomly selected. Data obtained through questionnaires, literature, observation, and interviews. Data were analyzed by using descriptively with normality test distribution using the Kolmogorov-Smirnov Test and hypotheses using paired samples T-test. The results of analysis showed that the average value of post test is higher than the average value of pre test both the experimental group or the control group in a slum community in the Village Tallo, this means that the Environmental Sanitation Knowledge, Attitude Environmental Sanitation, and Behavior Sanitation of sanitary latrines, Waste Water Discharge, and Water after posttest more positive than before pretest.

Keywords: Behavior Change, Slum, Environmental Sanitation

Introduction

The changes in the economy grower in several big cities in Indonesia became an attraction for the community in rural areas around the hinterland of the city to migrate to the city. They came to the city of destination because the opportunity place many options for obtaining various occasions in an effort to improve their lives. They hope to obtain higher revenues than in the area of origin. The impact of the above problems, namely the migration from the countryside to the big cities leading to an increased need for land. The increasing value of the land resulting in lower middle income people are not able to adequately meet the needs of the land, resulting in the emergence of slums in some areas in an urban.

Slums area in Makassar formed as a result of population increase sourced from the swift currents of migration, either through the process of urbanization of the rural areas, and through the migration process in general. Attraction that cause migration into urban centers, partly because the city of Makassar as a service center with various completeness of its facilities. Growth and development is very rapid Makassar has caused serious problems including the housing problem. Characteristics of the slums area in the city of Makassar most prominent visible from house or building quality that are not permanent, with a high building density

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and irregular shape, limited road infrastructure if any form of narrow alleys winding, absence of drainage channels and shelters garbage so it looks dirty and slovenly. Not infrequently there are slums in areas that are regularly flooded.

The above data shows that there are low level of environmental sanitation in slums area and this area will greatly affect environmental sustainability. The focus research in the village Tallo, environmental management requires the involvement of all levels of community without any exceptions. An environmental sanitation in the slums area that exist in the Village Tallo visible to the public on the phenomenon of settlement environment characterized by: (1) Community awareness is still low to meet the requirements of environmental sanitation, (2) The attitude and behavior of community who tend not to care in settlement area of environmental sanitation management involvement, (3) Conduct a society still looks defecated in places pollute the environment (beach and river) and the lack of sanitation facilities that meet the health requirements, (4) Absence of continuity to the improvment of slum areas are carried out independent, and (5) There are still community who run the unhealthy lifestyle, such as polluting the natural environment with household waste.

From the background of the problems mentioned above, the basis for the author to conduct research on the extent of knowledge, attitudes and behavior in the village slum of Tallo on environmental sanitation. Therefore, this research is expected to change the pattern of the tendency of people who had less care/attention to environmental sanitation will be able to change their ways of thinking into a society that cares for the environment with environmental sanitation with the knowledge possessed environment, especially on environmental sanitation shelter and settlement

Research Methods

The steps of this study are as follows: (1) to conduct an initial survey of the state of environmental sanitation and housing communities to identify existing sanitation situation, (2) to conduct preliminary tests on the control and experimental groups to determine the ability of knowledge, attitude, and the behavior of environmental sanitation, (3) by creating a counseling program for community environmental sanitation slum of knowledge, attitudes, and behavior of environmental sanitation for the experimental group, (4) to implement outreach programs in the experimental group as the materials used for the test experiment (post test), (5) to perform tests in the control group and the experimental group. This type of research used in this research is quantitative, while the method used is a survey and experiment.

The population in this study is that communiity who live in the slums are located in the village of Tallo District of Makassar. A sample of 40 households based on the initial results that have been done on presurvey. The samples were divided into 2 groups based on the type of research to be done, the first group of 20

sample households as a group who received treatment (experimental) and a second group of 20 samples households as a control group (without treatment). Data collection techniques used in this research by using instruments: interviews, observations, and questionnaires. As for the data analysis used the paired T-test.

Research Result

Overview of Makassar

Based on data from BPS (2013) residents of Makassar in 2012 about 1.352.136 people, made up of as many as 667.681 men and 684.455 women that occupies about 175,77 km², with a population density according to geographic wide average of 63,30 people/ha. If the number of households members is assumed as much as 5 people, then the number of household in the city of Makassar in 2014 as many as 270.427 households. Based on population growth figures in parentheses are the five year period 1997-2001 by the BPS, Makassar City population grew an average of 2,7% per year.

Data from the Public Works Department of Makassar (2014), to the extent of the biggest slum area in the city of Makassar are Subdistrict Tallo with total area of 101.48 Ha with a population density of 29.638 people, and then sub-District of Rappocini with a population density of 15.684 people, District Mariso with a population density of 11.901 people, and there are 3 sub-district which are not classified as having slum-districts Wajo, Panakkukang, and Mangala. Based on the above data it appears that the vast slums area a research areas is the largest slum in the city of Makassar. For a clearer picture of a slum area in the city of Makassar can be seen in Figure 1.



Figure 1: Map Location Makassar City Slum

Overview of Tallo Village

The location is on the research that conducted at Tallo village consisting of 5 RW with 26 RT, is one of the villages in the District of Tallo is located at the north of Makassar. The location of this research has its own characteristics because it is on land that was gathering in the south, the sea is located in the north, and the river is at the east village. The boundaries of the Village of Region Tallo is Northern Makassar Strait, the South with Buloa Village, East of the village of Bira/Tallo River and the west by the Strait of Makassar.

Under the administration of the territory, the area of the Village Tallo is 0.61 km². With a population of 8.881 people, made up of 4.442 male and 4.439 female soul, while the number of households in the year 2014 as many as 2.220 families (District Office Tallo, 2014).



Figure 2: The state of the environment

Descriptive Statistics

TABLE 2: STATISTICAL TEST PRE/POST TEST VARIABLE

<i>No</i>	<i>Pretest/Posttest Variable</i>	<i>Min</i>	<i>Max</i>	<i>The lowest value</i>	<i>Standard deviation</i>	<i>Category</i>
a.	Knowledge Pretest Variable of Experiment Group	7,00	13,00	7,00	1,67	low
b.	Attitude Pretest Variable of Experiment Group	63,00	63,00	63,00	1,39	low
c.	Behavior Pretest Variable of Experiment Group	24,00	58,00	46,00	3,04	less
d.	Knowledge Posttest Variable of Experiment Group	24,00	28,00	24,00	1,09	Still good
e.	Attitude Posttest Variable of Experiment Group	81,00	101,00	81,00	6,15	Have good
f.	Behavior Posttest Variable of Experiment Group	90,00	102,00	9,00	3,58	Still good
g.	Knowledge Posttest Variable of Control Group	9,00	13,00	9,00	1,36	Still not enough
h.	Attitude Posttest Variable of Control Group	64,00	73,00	64,00	2,56	Still low
i.	Behavior Posttest Variable of Control Group	46,00	73,00	46,00	9,57	Still not enough

Knowledge society to slum aspects examined included: (a) knowledge of the residence, (b) knowledge of the house environment, (c) knowledge of sanitary latrine, (d) knowledge of waste sanitation, (e) knowledge of sanitary wastewater, (f) knowledge of sanitary water.

The attitude of community slums area aspects examined included: (a) the attitude towards how to dispose of feces, (b) the attitude towards how to dispose of waste, (c) attitude toward the way of process waste, (d) attitude towards how to dispose of wastewater from homes, (e) attitude towards how to obtain and use clean water.

For Behavior slum community aspects examined included: (a) action against removing feces, (b) action to maintain latrines, (c) action against littering, (d) action on how to manage the trash, (e) actions invites cleaning trash, (f) action on how to dispose of waste water, and (g) measures how the use of clean water.

Inferential Statistics

Knowledge of Environmental Sanitation

From the analysis of the data in the table paired t-test obtained by t_{value} of 35.49 by the probability (sig.) = 0.000 < significance level $\alpha = 0.05$, statistically significant meaning to reject H_0 and accept the hypothesis H_1 that there is a difference between the results post-test was given treatment and before being given treatment.

Attitudes on Environmental Sanitation

From the analysis of the data in the table paired t-test obtained by t_{value} of 17.475 by the probability (sig.) = 0.000 < significance level $\alpha = 0.05$, statistically significant meaning to reject H_0 and accept the hypothesis H_1 that there is differences between the results post-test and a given treatment before being given treatment.

Behavior Society of Environmental Sanitation

From the analysis of the data in in the table paired t-test obtained by t_{value} of 58.087 by the probability (sig.) = 0.000 < significance level $\alpha = 0.05$, statistically significant meaning to reject H_0 and accept the hypothesis H_1 that there is differences between the results post-test and a given treatment before being given treatment.

Discussion

Descriptively, Knowledge Pretest Variable of Experiment Group, the mean = 9.60 which are in the range of less with the details of the category was 5.00% and 95.00% less category, so it can be concluded that the knowledge community slum village area Tallo towards environmental sanitation the pre-test is lacking. Descriptively, Attitude Pretest Variable of Experiment Group, the mean = 61.65 which are in the range of less with the details on attitude variable 100.00% in the

category less, so it can be concluded that public attitudes towards Tallo slum village environmental sanitation the pre-test is lacking. Descriptively, Behavior Pretest Variable of Experiment Group, mean = 61.60 which are in the range of less with details category was 65.00% and 35.00% very lacking, so that it can be concluded that the behavior of slum village communities towards environmental sanitation Tallo the pre-test is lacking.

Descriptively of Knowledge Posttest Variable of Experiment Group, mean = 28.80 which is at a very good range with details categories of good 30.00% and very good 70.00%, so it can be concluded that the knowledge society slum village Tallo to sanitation environment in the post test was very good. Descriptive of Attitude Posttest Variable of Experiment Group, mean = 106.40 which is at a good range with details of the category of being 85.00% and good 15.00%, so it can be concluded that public attitudes towards slum village environmental sanitation in Tallo post test was good. Descriptive of Behavior Posttest Variable of Experiment Group, mean = 106.40 which is at a good range with details of the category of being 60.00% and 40.00% good, so it can be concluded that the behavior of slum village communities against environmental sanitation in Tallo post test was good.

Descriptive of Knowledge Posttest Variable of Control Group, mean = 11.50 which is the range less with the details of the category of being 30.00% and less 70.00%, so it can be concluded that the knowledge of slum village communities against environmental sanitation in Tallo post test is lacking. Descriptive of Attitude Posttest Variable of Control Group, the mean = 67.85 which is the medium range category with details being 10.00% and less 90.00%, so it can be concluded that public attitudes towards slum village environmental sanitation in Tallo post test is being. Descriptive of Behavior Posttest Variable of Control Group, mean = 72.80 which is the medium range category with details being 10% of respondents, was being 65.00%, and 25.00% sorely lacking, so that it can be concluded that the behavior of public housing slum village Tallo against environmental sanitation in pre-test is being.

Based on the results of descriptive analysis, concluded that the knowledge society slum village Tallo against environmental sanitation in the pre-test is lacking, both in the control group and the experimental group. The experimental results of phase 1 environmental sanitation provision understanding shows that the average value posttest higher than the average value of the pretest. This means that the knowledge, attitudes, and behavior on environmental sanitation slum communities be increased and positive after being given an understanding. While the experimental results of phase 2 treatment in the form of physical sanitary latrines and sewerage. To the treatment that has been given to the respondents who received physical treatment sanitation indicate that the behavior of respondents who treated be changed (positive) and care.

Conclusion

Phase I of the experimental results show that the average value posttest higher than the average value of the pretest. This means that the knowledge, attitudes, and behavior on environmental sanitation slum communities be increased and positive after being given an understanding. Thus, the provision of treatment in the form of an understanding of the knowledge of effective environmental sanitation to be done because a positive impact to the community.

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