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Factors Related To Community Awareness In Household Waste Management In Tanggung Village, Blitar City

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ABSTRACT
Household waste management is an important effort in improving environmental health. Public awareness in household waste management can be influenced by various factors, such as knowledge, attitudes, and the availability of infrastructure. This study used a quantitative design with a cross-sectional approach with a sample of 93 heads of families (KK). The study was conducted through a validated questionnaire and field observations. Data were collected using a questionnaire and analyzed using the Chi-square test. The results showed that most respondents had sufficient knowledge, positive attitudes, a good level of awareness, and adequate infrastructure. The results of the Kendall's Tau-B analysis showed a significant relationship between knowledge (p = 0.000), attitudes (p = 0.000), and infrastructure (p = 0.000) with public awareness in household waste management. The conclusion of this study shows that knowledge, attitudes, and infrastructure are significantly related to public awareness in household waste management. Therefore, it is necessary to increase education and provide adequate infrastructure to increase public awareness in implementing optimal household waste management.

Keywords: Attitude, Facilities and Infrastructure, Knowledge

INTRODUCTION

A clean environment is a benchmark for a community's quality of life. One way to improve environmental quality is through waste management (Muhaimin & Jumriani, 2023). Waste is materials or objects discarded because they cannot be reused. According to Law No. 18 of 2008, waste is defined as the residue of daily human activities or natural processes in solid or semi-solid form, consisting of organic or inorganic substances, biodegradable or non-biodegradable, and no longer useful, which are then discarded. The waste problem is a classic, never-ending polemic in society. The waste problem will never end if public awareness is lacking (Luh Gede Mita Laksmi Susanti & Arsawati, 2021). Effective waste management is crucial for maintaining a clean and beautiful environment. According to Law No. 18 of 2008 concerning Waste Management, it is stipulated that community participation in household waste management is crucial, particularly in reduction (which includes control measures, reuse, and recycling) and in waste handling (including separation, collection, transportation, processing, and the final processing stage).

Community-Based Total Sanitation (STBM) is a strategic approach to addressing sanitation and hygiene issues in the community. The STBM program's implementation encompasses five pillars: eliminating open defecation, washing hands with soap, managing household drinking water/food, managing household waste, and managing household liquid waste (East Java Provincial Health Office, 2023). The goal of STBM is to foster hygienic and sanitary behavior in the community independently, improving the community's health status through health promotion methods (Notoatmodjo, 2012). The benefit of STBM is to raise community awareness of the importance of maintaining health, both individually and

collectively. With this program, Indonesia contributes to realizing a healthy and disease-free nation.

The Indonesian government pays special attention to waste management through various policies, one of which is the issuance of Law Number 18 of 2008 concerning Waste Management. The law states that population growth and changes in people's consumption habits have led to an increase in the amount and variety of waste, which must be managed systematically, comprehensively, and sustainably. Successful waste management depends not only on government policies and the availability of facilities but is also greatly influenced by how the community handles its waste on a daily basis (Puspita, 2023). Tanggung Village is one of the areas in Blitar that continues to experience increasing residential activity, resulting in an increase in household waste every day. Although the STBM program has been implemented through several health promotion and community strengthening activities, some residents still fail to separate their waste, burn their waste, or dispose of it inappropriately. This situation indicates that the implementation of Pillar 4 of STBM is not yet optimal and may be influenced by a number of factors, both individual and environmental. Therefore, an environmentally sound waste management approach is needed through careful and controlled planning in the form of integrated waste management using the 3R concept: Reduce, Reuse, and Recycle.

Based on a preliminary study conducted in Tanggung Village, Blitar City, using questionnaires and field observations, various problems remain in household waste management. Some people still throw garbage in empty lots or gardens because it is not easy to get temporary shelter, have not sorted the waste from the beginning, and have not utilized the waste by reducing use, renewing goods, and recycling. Therefore, an environmentally friendly waste management method is needed through careful and controlled planning in the form of integrated waste management using the 3R concept of Reduce, Reuse, Recycle. Therefore, this study was conducted to determine the relationship between knowledge, attitudes, facilities and infrastructure with the level of public awareness in household waste management in Tanggung Village, Blitar City.

METHODS

This study uses a quantitative approach with analytical methods and has a cross-sectional research design. This design is used to examine the relationship between independent variables and dependent variables, where both variables are measured at the same time. The analytical approach aims to identify various factors related to how the community implements Pillar 4 of Community-Based Total Sanitation (STBM) in managing household waste. This study was conducted in the Tanggung Village area, which is included in the Kepanjenkidul District, Blitar City. The study population included all heads of families (KK) living in Tanggung Village, a total of 1,200 KK. The number of samples was determined using the Slovin formula, with a 10% error rate, resulting in a total of 93 respondents. The sampling technique used was simple random sampling, so that each head of family in the studied group had an equal chance of being selected as a respondent. Data collection was carried out using questionnaires and field observation sheets. Data analysis used the chi-square statistical test with a significance level of $p>0.05$ (95% confidence level).Metode berhubungan dengan validitas dan reabilitas dari hasil penelitan yang diperoleh dan dilaporkan dalam artikel ilmiah.

RESULT

Univariate Analysis

Table 1. Distribution of Research Variables

Variable	Dominant Category	Frequency (n)	Percentage (%)
Knowledge	Moderate	50	53.8
Attitude	Moderate	47	50.5
Facilities and Infrastructure	Not Available	56	60.2
Awareness	Moderate	53	57.0

Source primary data 2026

From the results of table 1, univariate analysis shows that most respondents have a level of knowledge in the sufficient category, which is 50 people or 53.8%. Meanwhile, there are 23 people or 24.7% who are in the less category, and 20 people or 21.5% in the good category. In the attitude variable, most respondents are included in the sufficient category, which amounts to 47 people (50.5%), then followed by the good category with 32 people (34.4%), and the less category consists of 14 people (15.1%) and the facilities and infrastructure variable, most respondents do not have sufficient facilities and infrastructure, which is 56 people (60.2%), while only 37 people (39.8%) already have adequate facilities and infrastructure. Meanwhile, the awareness variable shows that most respondents are in the sufficient category, which is 53 people or 57.0%, while the less and good categories each have 20 people or 21.5%. In general, the results of the univariate analysis show that most respondents have a level of knowledge and attitude in the sufficient category and have not received support from adequate facilities and infrastructure.

Bivariate Analysis

Table 2. Results of the Analysis of the Relationship Between Independent Variables and Household Waste Management Awareness

Characteristics	Kendall's tau-b Correlation Coefficient (τ)	*p*-value
Knowledge	0.932	0.000
Attitude	0.711	0.000
Facilities and Infrastructure	0.415	0.000

Source primary data 2026

Table 2 shows that using Kendall's Tau-B analysis at a 95% confidence level ($\alpha = 0.05$), it was found that the variables of knowledge, attitude, and facilities and infrastructure showed significant results on awareness of household waste management. This is indicated by a p-value of 0.000 ($p < 0.05$) for each. Therefore, increasing public education and providing adequate facilities and infrastructure need to be a government concern to improve good waste management behavior in the community.

DISCUSSION

The Relationship Between Knowledge and Awareness in Household Waste Management

Research shows a significant relationship between knowledge level and awareness in

household waste management, with a p-value of 0.000, which is less than 0.05. Respondents with a good understanding more often implemented waste management in accordance with Pillar 4 of the Integrated Waste Management System (STBM) compared to those with less knowledge. The more a person knows, the better they manage their waste. According to Rido Fauzi & Rahmawati, knowledge forms the basis for shaping behavior because someone who understands the benefits and impacts of an action is usually more likely to adopt the correct behavior. When disposing of waste, understanding its impact on health and the environment makes people more motivated to apply the 3R principles. The results of this study align with research by Jayanti et al. (2020), which shows that knowledge influences how a person manages waste. Based on the researchers' belief, increasing knowledge through education and outreach must be ongoing to improve waste management.

The Relationship Between Attitude and Awareness in Household Waste Management

This study shows a strong, significant relationship between attitude and public awareness in household waste management, with a p-value of 0.000 < 0.05. Respondents with positive attitudes tended to engage in waste management more frequently than those with less positive attitudes. According to Ashar (2020), attitude is how a person tends to respond to something, which forms the basis for how they act. Having a positive attitude toward environmental cleanliness will make someone more motivated to manage waste properly. The results of this study align with research (Salewangeng & Yusuf et. al., 2022), which shows that a person's attitude influences how they manage waste. According to the researchers, developing positive attitudes toward cleanliness through education and community empowerment is crucial for improving the implementation of Pillar 4 of the STBM (Community Based Waste Management) program.

The Relationship between Facilities and Infrastructure and Public Awareness of Household Waste Management

The study shows a significant relationship between facilities and infrastructure and public awareness of household waste management, with a p-value of 0.000 < 0.05. Respondents with adequate facilities and infrastructure were more likely to manage their waste than those without. According to Firmansyah (2023), the availability of facilities helps individuals take health-promoting actions. The availability of trash bins, waste disposal sites (TPS), and waste collection systems facilitates the disposal and management of waste in accordance with the principles of the Integrated Waste Management System (STBM). This study aligns with research by Irwanto & Rosyidah et al. (2024), which states that facilities and infrastructure influence waste management behavior. The researchers believe that adequate facilities must be continuously improved to effectively implement Pillar 4 of the STBM.

CONCLUSION

There is a significant relationship between the variables of knowledge, attitude, and infrastructure with public awareness in household waste management. The description of sufficient knowledge is 53.8%, sufficient attitude is 50 people (53.8%), and infrastructure is not available is 56 people (60.2%), indicating that the majority of respondents have sufficient knowledge, sufficient attitude, and inadequate infrastructure. This indicates that the better the level of public knowledge and attitude and the more adequate the availability of facilities and infrastructure, the higher the level of public awareness in managing household waste. Therefore, efforts to increase public awareness need to be carried out in an integrated manner through continuous education, the formation of positive attitudes towards waste management, and the provision of adequate supporting facilities by the government and related parties.

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