Waste burning in Kalipentung hamlet, Kalitirto, Berbah, Sleman

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Abstract. Health development cannot be separated from early efforts to prevent the disease. This cannot be done only by the government but also by the community. To prevent disease early, community diagnosis can be an effective measure. The aim of this research is to carry out a community diagnosis to identify the main problems faced by the community, which are then used as evidence to determine strategies for solving these problems. This research was an observational study by conducting community diagnosis using a questionnaire to the community of RT 03 Kalipentung Hamlet in April-June 2022. A total of 30 families participated in this study, most of which had completed junior high school education. From the results of this study, it is known that many people still handle waste by burning, and it is feared that it will cause serious health problems such as worsening the respiratory tract. Based on the primary health priority in RT 03 Kalipentung Hamlet, namely handling waste by burning, an intervention was carried out with waste management education using leaflet media to increase public understanding regarding good and correct waste management.

1 Introduction

Waste is an item that is considered obsolete or not reusable and was thrown away by the previous owner, but can still be used by some people if handled properly [1–2]. The waste management system must be implemented well and systematically [3]. Waste management activities usually include the utilization and development of various waste infrastructure and facilities such as how to store it, then how to collect it, then how to transfer, transport, how to process waste and dispose of waste [4–5].

The lifestyle and culture of the community itself is closely related to the waste problem. Therefore, waste management is not only a government matter, its management requires community participation. The amount of waste continues to increase from year to year due to increasing population, improving the quality of life of regions and communities, as well as developments in science and technology which cause people's lifestyles to change [4].

The result of various activities in human daily life and the result of natural processes that often cause serious problems in various regions in Indonesia is waste. Various urban waste problems not only threaten the beauty and cleanliness of the area, but also if not handled properly will have a negative impact on public health and environmental sustainability [6].

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Community diagnosis is an activity to find out health problems in the community, so that the main health problems (health priorities) are found based on existing facts, and then a plan will be made to solve the problem. The existence of Community Diagnosis needs to be carried out, apart from finding out health problems in the community and finding solutions to the problems, it is also useful for making people aware that there are many health problems in their area [7].

Community diagnosis or also commonly called community diagnosis is a method that can be used to determine or analyse a health problem in the community for a group of people or individuals, namely by collecting data in the field. According to WHO, community diagnosis is an explanation consisting of quantitative and qualitative information regarding the health condition in a community along with factors that can influence its health condition. Community diagnosis begins with problem identification, which will then lead to an intervention or solution for improvement in the community, so that it can produce a work plan [8].

Community diagnosis is carried out at the pre-field stage which includes finding out secondary data or village profile data, etc., preparing research tools/instruments, lobbying with informants in the area. Then the field stage is conducting in-depth interviews with selected informants (village secretaries, community leaders) and the entire community [9].

Several stages of community diagnosis, namely: 1) Pre-study phase, which consists of integration/exploration into the local community, initial social investigation, conducting community consultations and preparing leadership diagrams, planning surveys and filling out questionnaires. 2) Study phase, consisting of conducting a survey, then data processing, then data analysis, then preparation of reports, consultations, and providing feedback from the study results. 3) Activity implementation phase, consisting of planning an action and health program, implementation and finally action evaluation [10].

The main aim of community diagnosis is to identify existing health problems in community groups and can be used to create solutions to existing problems. The specific objectives of community diagnosis include identifying various public health problems, improving instruments, analysing health problems and providing suggestions for solving problems, describing the organizational structure of health facilities at the primary level, being able to communicate more closely with the community, and being able to make decision proposals to solve problems. health problems [11].

To find out health problems that occur in the community, it is necessary to carry out a community diagnosis at RT 03 Kalipentung Hamlet. The aim of this research is to find out health problems that occur at the location. TPB/SDGs is a global and national commitment in an effort to improve the welfare of society. From small actions in everyday life to global policies, we can all contribute to creating positive change. This research is in accordance with one of the 17 sustainable development goals (SDGs) for 2030 declared by both developed and developing countries at the UN General Assembly in September 2015, namely point (3) Healthy and Prosperous Life.

2 Material and Methods

This type of research is observational to carry out community use questionnaires to the people of RT 03 Kalipentung Hamlet. The data collected is the level of public knowledge about attitudes and actions towards handling household waste. Data was collected through interviews and observations in April-June 2022.

3 Results and Discussion

A total of 30 respondents participated in this research, where the number of women and men was the same, namely 15 people per group. Meanwhile, if we look at the education level of the respondents, approximately 37 percent stated that they had at least junior high school/equivalent education (Table 1).

Table 1. Frequency distribution based on gender and education level in RT 03 Kalipentung Hamlet in 2022.

Variable	Frequency n = 30	%
Gender		
Male	15	50.00
Female	15	50.00
Education		
No school	2	6.66
elementary school equivalent	7	23.33
Middle school equivalent	11	36.67
high school equivalent	10	33.33

Based on the results of data collection and data processing, problems were found related to handling household waste, as follows:
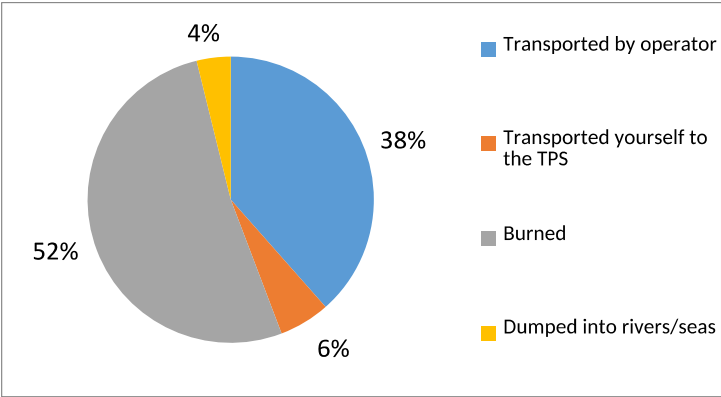

Fig. 1. Handling of household waste in RT 03 Kalipentung Hamlet in 2022.

Figure 1 shows that handling household waste in RT 03 Kalipentung Hamlet involves burning waste which was carried out by more than half of the population (52%). Some people think that burning rubbish is part of waste management. In fact, this behavior actually pollutes the environment and can affect health. This poor waste management behavior is theoretically influenced by the limited knowledge and age maturity level of the community [12].

Burning waste has the potential to endanger human health and the ecosystem because the emissions resulting from this process can worsen respiratory diseases, such as asthma, and increase the risk of heart disease. Additionally, the process of burning waste can produce a number of toxic chemicals, including dioxins, which can contaminate crops or seep into waterways, potentially affecting the health of individuals who consume water and agricultural products [13].

Previous research shows that there is a positive or significant correlation between the level of knowledge of housewives and the level of participation in waste management. The

definition of knowledge is information that an individual can know about something as a result of experience, its relationship with education because when we have higher education our knowledge will be broader [14]. This education is not limited to formal education but also non-formal education. Thus, this research obtains a relationship between the level of education and the level of knowledge [15–16]. The results of this research show that in RT 03 Dusun Kalipentung the education level of housewives is still relatively low and the knowledge of housewives in managing household waste is also inadequate.

The mother's level of knowledge in handling waste plays an important role because knowledge about waste may be influenced by the absence of outreach activities to the community and lack of information. This was expected because the outreach activities at RT 03 Kalipentung Hamlet focused more on health education, such as diarrhea, dengue fever, etc. and did not specifically provide education about household waste management. This results in low awareness of plastic waste management. On the other hand, in real life, it is difficult for housewives to avoid using plastic waste in their daily lives [17].

Increasing public awareness requires a very hard effort and this takes a long time. This raises the need for socialization regarding waste management which can encourage community involvement in waste management, especially inorganic waste in the form of plastic [12]. Formal education or informal education can be carried out to increase knowledge and awareness. In various community environments, informal education is carried out to improve education, namely by conducting direct outreach to local communities, carrying out outreach, and disseminating health promotion media information with posters or leaflets. Increasing public understanding regarding the activities to be carried out, including plastic waste management, is an effort to empower the community.

As a form of awareness from this research, education was carried out to provide knowledge and information about household waste processing. In ongoing outreach activities, the media used is leaflets. Leaflets have several advantages and disadvantages. The advantage of leaflets is that they can be stored for a long period, if there is material that you feel you have forgotten, you can read it again and get more detailed information. The disadvantage of this media is that it attracts the attention of readers and usually the leaflets that have been distributed are not saved. After the intervention was carried out, I provided a trash can for separating organic and inorganic waste in front of the house of the Head of RT 03, the aim of which was to minimize the handling of waste by burning it [18].

Inorganic waste is waste produced from non-biological materials, which are no longer reusable and are difficult to decompose. Inorganic waste consists of: plastic waste/bottles, cans, plastic bags, glass, used tires. Meanwhile, most of the others can only be described over a very long period of time. This type of waste at the household level includes glass, plastic bottles, cans and plastic bags [19–20].

4 Conclusion

Based on the results of data from priority community diagnoses regarding the household waste problem in RT 03 Kalipentung Hamlet, namely that household waste handling has not been carried out properly. Household waste is managed by burning it and there are no special inorganic or organic waste bins in RT 03 Kalipentung Hamlet. In this study, the data collected was the level of public knowledge about attitudes and actions towards handling household waste. The data in this research was collected through interviews and observation. To address these priority health problems, outreach is carried out using leaflet media which aims to increase community knowledge regarding waste management so that people can know how to manage waste properly and correctly so that it does not endanger health and the environment.

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