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Research Article

Assessment of Waste Management Awareness and Practices among Parents: A Sequential Explanatory Study

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ABSTRACT

This study explores parents' awareness and practices on solid waste management. It shows the significance of solid waste segregation for parental involvement and how it influences parents' attitudes and behaviors in a barangay in Magalang, Pampanga. The parents benefit from this study by learning more about the practices and appropriate segregation within their community. In this study, which involved 100 parents, a mixed-method sequential explanatory technique was employed. The results indicate that parents are not aware of the relevant laws about solid waste management and the sources of information about it. In terms of practices, parents are productive at disposing of, reducing, and recycling solid waste, but they don't reuse and segregate the solid waste that much. Overall, the results highlight how crucial proper waste sorting, awareness-building, community involvement, resourcefulness, and sustainability are to improve waste management. Although there are challenges, such as a lack of awareness and inconsistent efforts, recycling and waste removal are mentioned as sources of satisfaction. Parents also emphasize the need for proper segregation, solid waste management regulations, and providing incentives to promote sustainable behaviors in the barangay.

Keywords: Awareness and Practices, Segregation, Solid Waste Management, Sustainability

Introduction

Parental involvement in the management of garbage is crucial for fostering awareness and promoting sustainable practices in solid waste management. To gain a thorough understanding of how parents now feel and act about

garbage disposal, the researchers began with a thorough background investigation. The researchers implemented several targeted educational initiatives and interventions after an initial assessment, closely observing how awareness and behavioral patterns evolved.

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This study uses meticulous data analysis to create a dynamic narrative of the parental transformation process, in addition to explaining the initial level of waste management awareness. The significance of participation and education in encouraging ecologically friendly behavior in the communities is emphasized by this study.

Solid waste includes all forms of garbage, junk, and discarded materials. It can be divided into categories such as municipal solid waste, health care waste, and e-waste according to where the waste is produced.

Nearly two billion tons of municipal solid garbage is produced annually. Improper disposal can lead to air, soil, and water contamination, among other harmful health effects. For example, the surrounding population is especially exposed to adverse health impacts from hazardous waste or dangerous waste treatment procedures like open burning, which can directly harm waste employees or other individuals involved in waste burning (World Health Organization, 2023).

Moreover, solid waste management involves gathering, handling, and getting rid of solid garbage that has been abandoned because it has reached its limit or is no longer needed (Nathanson, 2023).

Inappropriate solid waste management practices in schools are a major contributing factor to the declining environmental health conditions in developing countries. An efficient waste management system is necessary to preserve the environment and public health (Adeolu & Enesi, 2018). To properly fulfil their role in proper waste management, students need to be aware of environmental issues (Debrah, Vidal, & Dinis, 2021).

On the other hand, the study doesn't provide any information about how students' attitudes regarding appropriate waste management will evolve. Solid waste is defined as any abandoned residential, commercial, industrial, and institutional garbage that is not hazardous, as well as street sweepings, building debris, agricultural waste, and other non-toxic and non-hazardous solid waste by Republic Act No. 9003 (Ecological Solid Waste Management Act of 2000). It is also clear that the production of solid waste is rising worldwide.

Waste Management

The amount of waste generated globally each year is expected to rise by 70% by 2050, from 2.01 billion tons in 2016 to 3.40 billion tons (World Bank, 2018).

One of the biggest issues facing many nations worldwide is the management of solid waste. Severe risks, including health risks and environmental pollution, can result from improper waste collection, recycling, or treatment, as well as from the careless disposal of waste in dumps (Molina et al., 2020). Solid waste management is therefore essential.

Concerns about solid waste management in the Philippines include improper waste disposal, ineffective waste collection, and a lack of disposal facilities (Matunog & Awa, 2013; Senate Economic Planning Office, 2017).

As a result, the Philippines was regarded as the world's top plastic polluter (World Wide Fund-Philippines, 2018). Improper handling of solid waste can lead to various socioeconomic and environmental issues like soil and water contamination, air pollution, flooding, and health risks for residents (Abu Qdais, 2017; Sharholy et al., 2018; Senate Economic Planning Office, 2017).

Waste has a variety of harmful effects on our environment if it is not recycled. Trash can release greenhouse gases into the atmosphere, which can lead to climate change and global warming (Osmanski, 2020).

Therefore, each individual must properly manage waste. Sorting waste is the first step in managing trash in the community. Refusing to dispose of waste in landfills is an additional choice. It's imperative to increase staff and parent education regarding waste management and disposal practices, including composting, reducing, recycling, and reusing (Nathanson, 2023).

Practice, Awareness, and Attitude towards Proper Waste Management

Parents had excellent recycling and disposal policies, excellent practices for recycling and waste elimination, and a high level of awareness regarding waste management. Furthermore, 83% of the parents knew that improper waste management contributes to the spread of illness. Most respondents thought

that diarrhea and malaria could be brought on by improper waste management (Chirawurah & Yoda, 2018).

The parents' knowledge of solid waste management hasn't changed how they dispose of waste; however, it has had a specific impact on how they separate, reduce, reuse, and recycle (Paghasian, 2017). This is consistent with the findings of Ortega-Dela Cruz and Nabor's study from 2022, which showed that parents' attitudes, behaviors, and awareness of solid waste management are lacking.

One of the biggest issues in the Philippines is solid waste management. The nation's solid waste management is plagued by several issues, the most pressing of which are inadequate disposal facilities, ineffective waste collection, and inappropriate waste disposal. The wastes produced from different sources will continuously cause health risks and serious environmental effects like flooding, air pollution, ground and surface water contamination, and the spread of diseases if these worries are not addressed right away (Senate Economic Planning Office, 2017).

The majority of parents who practice solid waste management programs are currently in place, are aware of them, and are eager to learn more about the subject. Others, meanwhile, are traveling the other way. To make environmental programs more effective, all citizens must commit to their implementation (Amaba, Cubol, Paniza, & Trondillo, 2018).

As a result, authorities must explain parents' attitudes, behaviors, and awareness of appropriate waste disposal. Placing signs and posters on trash cans that highlighted the advantages of proper waste disposal and recycling was thought to help increase awareness about proper waste disposal and recycling management (Bultron, Evangelista, Jimenez & Tutor, 2019).

The literature and research mentioned above show that to guarantee that students have the knowledge and attitude required for SWM (solid waste management), they must receive environmental education. As evidenced by the most recent studies, waste is a problem that remains throughout time. This study

outlines the causes and effects of inappropriate waste management, along with management strategies. Given that it focuses on waste management, this recent study is relevant to this one as it can provide insight into the nature of the problem and serve as proof that it exists nowadays.

The comprehension, behaviors, and attitudes of parents in their homes are not well studied, even though parents are vital to waste management. To offer guidance for particular solutions and long-term waste management, a comprehensive investigation into parents' knowledge, behaviors, and factors influencing waste management must be carried out. Comparably, while the roles of barangay officials in local governance are well-established, there is a dearth of research evaluating their actual contributions, decision-making abilities, community involvement, accountability, resource management, and challenges. Barangay officials will be more successful in fulfilling community demands and removing obstacles if these gaps are filled. This will also help to inform policies and initiatives aimed at enhancing waste management at the household and community levels.

This study aims to provide an in-depth assessment of the knowledge and practices related to solid waste management in a particular community or geographic area. The purpose of this study is to evaluate parents' awareness of the significance of appropriate waste management, including recycling and disposal techniques. It also aims to identify areas for improvement and develop recommendations for more sustainable and effective waste management practices in one of the barangays in Magalang, Pampanga during the school year 2023–2024. The current practices in place are recycling programs, waste segregation, and disposal infrastructure. This study on parents' waste management practices and awareness contributes to recognizing possibilities and challenges in the field and making aware suggestions that promote better waste management for the benefit of communities and the environment.

Conceptual Framework

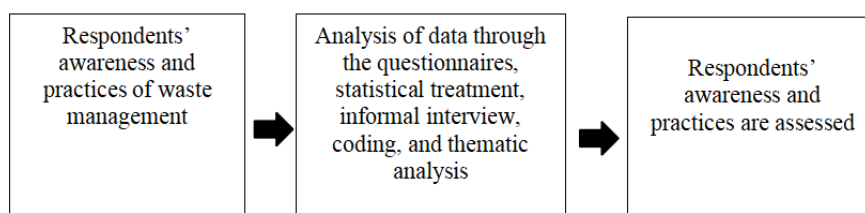


Figure 1: Paradigm of the Study

The figure shows the conceptual framework of sequential assessment of waste management awareness and practices among parents. This study adapted the Proposed Original Model (POM). Frame 1 includes the respondents' awareness and practices of waste management. Frame 2 includes data analysis through questionnaires, statistical treatment, informal interviews, coding, and thematic analysis. Finally, frame 3 includes the respondents' awareness and practices of waste management.

Statement of the Problem

The study aimed to assess the awareness and practices of the parents in a barangay in Magalang, Pampanga during the school year 2023-2024.

Specifically, this study aimed to answer the following questions:

1. How may the awareness of the respondents be described?
2. How may the practices of the respondents be described?
3. What are the perceived challenges and potential opportunities for enhancing solid waste management within the community, focusing on improving waste segregation and promoting the reuse of materials?

Significance of the Study

The results of this study will be significant in presenting an assessment of waste management awareness and practices among the parents in one of the barangays of Magalang, Pampanga.

Parents. Parents can improve their effectiveness as role models while fulfilling their responsibilities by gaining insight into their children's opinions, creating a nurturing home environment, supporting waste management

habits, encouraging stronger parental connections, and actively contributing to their children's personal and educational development.

Barangay Officials. Barangay officials can become more effective and responsible leaders by developing a deeper understanding of the community's perspectives, fostering supportive conditions, promoting responsible waste management practices, enhancing community bonds, and contributing to personal and educational development.

Teachers. Teachers can become more efficient and beneficial educators by achieving a deeper understanding of their perspectives, improving the classroom environment, improving teaching strategies, improving relationships, and experiencing professional and personal development.

Students. The results of the study could assist senior high school students in addressing their requests or questions and understanding the importance of keeping a clean and healthy environment.

Future researchers. The findings will be useful to future researchers who are going to conduct studies about solid waste management.

Definition of Terms

For better clarification and understanding of the terms related to the study, the following terms are defined conceptually.

Assessment. It is the act of gathering data and making judgments about a language learner's knowledge and ability to use a language (Chapelle et al., 2019). In this study, this refers to the specific steps taken by parents in this study to assess and provide judgment on various aspects of solid waste management. This requires their active participation in assessing

the amount, importance, quality, and significance of waste management factors.

Awareness. This study focuses on the practical application of parents' knowledge and understanding of waste management (Gafoor, 2012). It involves their ability to make informed decisions and take appropriate waste-handling actions.

Disposal. This refers to the site for disposing of solid waste, such as sanitary landfills or open dumps, which cannot be regarded as a sustainable method of managing trash (Sliusar, 2018). It involves implementing practices that minimize environmental impact, promote resource conservation, and prioritize long-term viability in handling solid waste.

Parents. Parents bring several development and parenting ideas (Goodnow & Collins, 1990). They are the study's respondents who provide information and insights about waste management practices and awareness.

Practices. Practices include awareness of concepts, values, and rules (Schmidt, 2014). This term refers to the concrete actions and behaviors demonstrated by parents in an environment of managing waste. These actions can include, among other things, recycling, disposal methods, and segregation practices.

Recycle. Recycling has been defined as the act of gathering, treating, or processing used or waste materials or by-products of production and consumption activities, without changing the essential form or nature of the said materials, to make them suitable for reuse (Woodford, 2023). The intention is to give parents and their kids a sense of accountability for sustainable practices.

Reduction. It refers to the amount which is the most significant of all the options to manage waste (Abdul-Rahman, 2022). This refers to the conscious process by which parents control their thoughts and behaviors, with an emphasis on either reducing destructive habits or implementing more successful parenting techniques.

Reuse. The idea of being wasteful makes many people uncomfortable (Abdul-Rahman, 2022). This refers to intentional parenting,

which is the deliberate use of techniques, approaches, or taught behaviors in a range of contexts and phases of a child's growth.

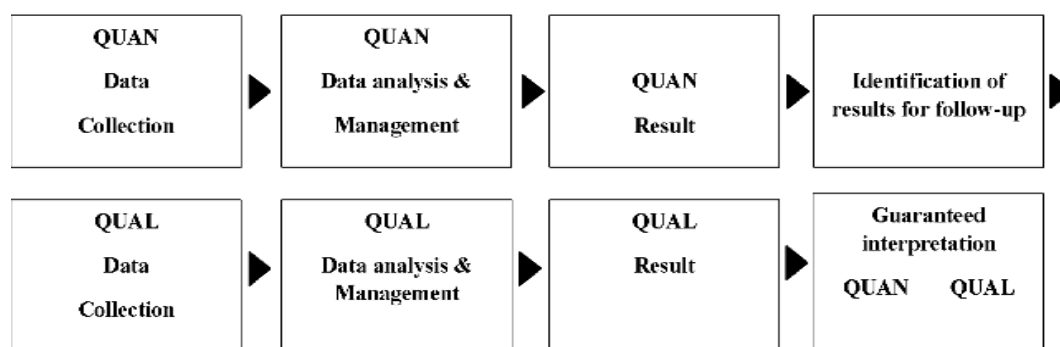
Segregation. At the point of generation, different wastes are separated into different color-coded bins with liners or sharps containers (Sahiledengle, 2019). As a practical aspect of waste management, segregation refers to the specific actions taken by parents to separate and categorize waste materials based on their distinct characteristics.

Solid waste management. This is the systematic management of solid waste collection, source separation, storage, transportation, transfer, processing (including recycling), treatment, and disposal activities (LeBlanc, 2019). This study includes parents' practical knowledge and actions in dealing with solid waste materials.

Methods

Research Design

This study employed a mixed-method sequential explanatory technique. The sequential explanatory design combined quantitative and qualitative approaches in successive phases of a single study. In the first phase, the quantitative method was used followed by the qualitative approach involving a thematic analysis. In a two-phase analysis, the questionnaire survey data was supplemented by a historical analysis approach (Stewart et al., 2020). The structured process of conducting a quantitative phase was utilized by analyzing the data with statistical tools, and then moving on to a qualitative phase using methods such as thematic analysis or content analysis. The focus was on the benefits of this approach, which include a more comprehensive understanding of confusing phenomena, finding assurance and triangulation, and the ability to face research questions that require both numerical data and rich qualitative insights. In conclusion, the mixed methods sequential explanatory design enhanced the research process by providing a comprehensive approach to understanding multifaceted research topics.



Respondents/Participants

The respondents of this study were 100 parents in one of the barangays in Magalang, Pampanga during the fiscal year of 2023-2024. The study set the following criteria: a) residents for fifteen years who live near drainage/canals b) belong in a lower-class status and c) have a blue-collar job.

Purposive sampling was used to select the respondents that are most likely to yield appropriate and useful information (Kelly, 2010; Palinkas et al., 2015). Purposive sampling techniques steer clear of random sampling and ensure that certain types of cases of individuals who may be included are included in the research study's final sample. Using a purposive strategy is supported by the assumption that, in light of the study's goals and objectives, certain categories of individuals may have significant and different views regarding the concepts and problems under investigation, resulting in being represented in the sample (Campbell et. al., 2002).

Out of the 100 participants, the researchers identified eight parents for the interview based on specific criteria. These criteria include individuals who have been residents near drainage/canals for fifteen years. The selection process targeted parents belonging to a lower socioeconomic class and specifically those engaged in blue-collar occupations. The purpose was to identify outliers within this specific group for further examination in the study.

In qualitative research, the researchers used the Homogenous Sampling method. Homogenous sampling is a crucial procedure that guarantees representative data collection and analysis to choose samples that appropriately reflect the overall composition of solid waste management (Strube, 2017).

Homogeneous sampling is a purposive sampling technique that aims to study a specific subset of a population sharing similar characteristics or traits. This method is particularly useful when wanting to study a particular subgroup in depth (Nikolopoulou, 2020).

The researchers aim to ensure that the selected participants share similar demographic and environmental characteristics. This focused sampling strategy allows for a more in-depth analysis of the impact of these shared traits on the study variables, contributing to a nuanced understanding of the research objectives.

Instrument

Phase 1 Quantitative

The researchers adapted the Solid Waste Management Awareness and Practices Questionnaire (SWMAPQ) based on books and existing studies on Solid Waste Management. The SWMAPQ is divided into three sections. Part 1 contains 36 statements about Solid Waste Management Awareness. Part 2 includes ten items that focus on the sources of Solid Waste Management Awareness among respondents. Finally, part 3 contains a total of 25 items dealing with the respondents' Solid Waste Management Practices. SWMAPQ received a Cronbach alpha value of 0.90 during pilot testing with non-participating Grade 12 students, indicating that the developed instrument has excellent internal consistency (George & Mallary, 2003).

Phase 2 Qualitative

In the qualitative phase, a comprehensive interview protocol guide was e-signed in line with the insights obtained from the quantitative phase (Creswell, 2014).

The data collection took place at a mutually agreed location between the participants and the researcher. Each interview lasted between 10-15 minutes. Interviews continue to be an effective method for gathering experimental data from the participants. The interview process will start with building rapport, signing consent forms, and understanding the participant's background. The interviews will research into the specifics of the participant's experiences via focused questions, which will be derived from the outcomes of the quantitative phase (Rubin, 2012).

As for the qualitative part, a tool was developed based on the questionnaires used in the quantitative phase. This tool aimed to interpret the outlier responses from the quantitative results (Bryman, 2016). The researcher provided the participants with an opportunity to further elaborate on their thoughts and guide their responses towards areas they consider significant. This approach led to the emergence of new and valuable insights, contributing to the enhancement of the study undertaken (Smith, 2009).

Data Collection

Phase 1 Quantitative

The researchers sought approval from the barangay captain to conduct the study. Upon approval, data collection was performed for the fiscal year of 2023-2024. The researchers gave the respondents a personal explanation of the study.

The study's only data source was primary data. A different or first-hand data source in which the respondents themselves provided the research's data is referred to as "primary data." The data for this study were gathered using a questionnaire survey.

Phase 2 Qualitative

In the qualitative part, the researchers attained the letter request for the validation of the interview questionnaires. After that, the researchers conducted an interview among the participants based on the qualitative findings. The participants had the opportunity to comprehend and share their own perspective and opinion about the question.

The researchers aimed to comprehend the respondents' responses to gain a better understanding of the sources providing information about solid waste management.

An interview was conducted with the participants who put an extreme distance after the majority of the participants. These are the outliers who serve as the participants in the qualitative phase.

Outliers are defined as data points that turn evidently from others and can significantly impact research conclusions (Aguinis et. al., 2013). It also states that outliers are data values that are so unlike other values in the sample that ignoring them can lead to significantly incorrect estimates (Osborne, 2004).

During the interview phase, the researchers incorporated written observations to record non-verbal communication cues such as vocal intonation and facial expressions, along with detailed descriptions of the situations. The participants were given the opportunity to freely express their thoughts and elaborate on their insights, adding depth to their answers. To ensure accurate documentation, audio recordings were used with the participants' consent, and later transcribed for analysis. The transcribed data were analyzed through key point coding, where units of meaning were labelled and grouped into concepts, forming themes. This process allowed the researcher to cross-validate the participants' answers, leading to a deeper understanding of their perspectives.

The integration of quantitative and qualitative results and findings provided a comprehensive perspective on the research.

The findings revealed that parents demonstrate a tendency towards laziness in waste segregation and lack sufficient knowledge about sources of information on solid waste. The participants in the qualitative study were considered outliers in the qualitative results. The researchers scheduled face-to-face interviews with parents who were able to participate and met the qualifications. The interviews were recorded and saved as audio files to be transcribed verbatim. Each interview took between 10-15 minutes for each participant. After the interviews, a letter of appreciation was sent to all the participants.

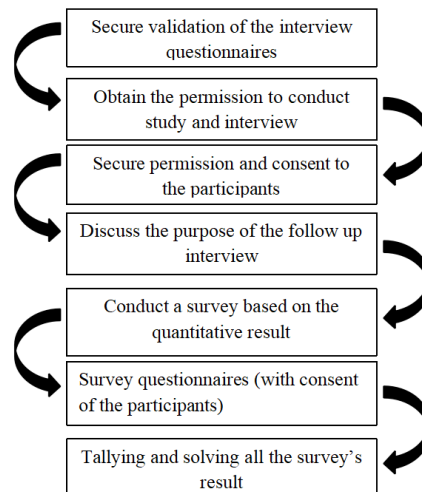


Figure 3. Qualitative Data Gathering Process Used in the Study

Statistical Treatment/Data Analysis

Phase 1 Quantitative

The researchers used quantitative and qualitative data. Standard deviation was used to gather data from parents to measure and evaluate the parents' level of solid waste management knowledge and practices. The standard deviation can be used to better comprehend the responses' dispersion around the mean, which shows how variable parents' knowledge and behaviors might be.

Phase 2 Qualitative

The qualitative part aimed to thoroughly examine parents' solid waste management practices in light of their experiences, attitudes, and motivations. Parents can share their

experiences and viewpoints by participating in one-on-one interviews with open-ended questions. By applying theme analysis to find repetitive patterns and prevalent themes in parents' comments, one can gain a qualitative understanding of their perspectives.

Following data coding, the researchers looked for themes and patterns in the data. This involves going through the data segments that have been coded and searching for patterns or significant relationships. While themes are more general thoughts or ideas that arise from the data, patterns can be observed in participant replies as similarities or consistency. Researchers can extract the implications and underlying meanings from the data by identifying these themes and patterns (Creswell, 2009).

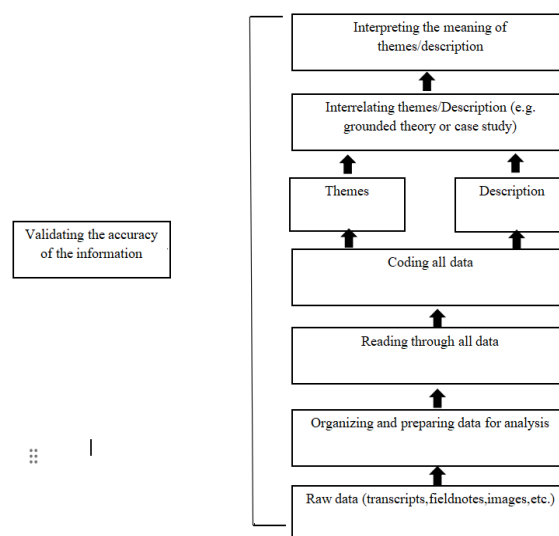


Figure 4. Creswell's Thematic Analysis

Ethical consideration

Ethical considerations are an integral part of academic writing, especially in the formulation of research methodology and activities. They ensure that research is reliable and conducted with respect for all involved (Bhandari, 2024).

The research about Assessment of Waste Management Awareness and Practices among Parents: A Sequential Explanatory Study was conducted with the voluntary participation and consent of the parents in one of the barangays

in Magalang, Pampanga. The participants/respondents were required to sign an informed consent form that includes documentation on their approval on the request letter. It was conducted with adequate communication, and the researchers guaranteed that the respondents' identities were hidden and the concerned individual would not be harmed by their ideas and actions throughout the interview. Furthermore, any information provided in the research was used solely for the research.

Result and Discussion

Table 1 Respondents' Level of Awareness on Solid Waste Management

Awareness	Mean	Verbal Description
1. Definition of solid waste	4	Extremely Aware
2. Improper solid waste disposal	3.56	Extremely Aware
3. Knowledge of relevant laws on solid waste management:	2.85	Extremely Aware
4. Understanding of solid waste prohibited activities	3.35	Extremely Aware
5. Perception of the importance of solid waste management	3.33	Extremely Aware
6. Familiarity with rules and responsibilities regarding solid waste management	3.03	Extremely Aware
7. Sources providing information about solid waste management	3.28	Very Aware

The data shows that the respondents are "**Extremely Aware**" in terms of their knowledge of the definition of solid waste with a mean of 4, improper solid waste disposal with a mean of 3.56, and their perception of the significance of solid waste management with a mean of 3.33. When it comes to familiarity with solid waste management regulations and responsibilities, on the other hand, awareness levels decline. The mean for familiarity with relevant laws is 2.85, and the mean for knowledge of solid waste management sources is 2.38, putting them at a "**Very Aware**" level.

It seems that those who were interviewed have an understanding of the basic concepts surrounding solid waste, including its definition, the consequences of inappropriate disposal, and the significance of solid waste management in general. This suggests an in-depth awareness of the more general problems related to waste.

But there appears to be a noticeable lack of knowledge on more precise matters, such as

the obligations and guidelines related to solid waste management.

People are aware of how important proper disposal of solid waste is to the environment. They are aware that avoiding negative consequences requires reducing, reusing, and recycling. This awareness shows an intentional effort to make decisions that are environmentally responsible by understanding the risk of waste and the importance of sustainable waste management (Mansour, 2018).

The difference between people's actual involvement in waste reduction determines their knowledge of solid waste management while people may be aware of solid waste management, several factors can impact the change from awareness to active participation (Bandh, 2020).

Furthermore, the lack of successful educational or awareness campaigns may make it more difficult to spread the word about the advantages of sustainable practices and the negative environmental effects of incorrect garbage disposal (Elegbede et. al, 2022).

Table 2 Respondents Practices on Solid Waste Management

PRACTICES	Mean	Verbal Description
1. Segregation of solid waste	2.67	Often
2. Reduction of solid waste	3.33	Always
3. Reuse of solid waste	2.95	Often
4. Recycling of solid waste	3.03	Always
5. Disposal of solid waste	3.68	Always

Based on the data, respondents had a strong commitment to proper solid waste disposal, as seen by a mean of 3.68 and a mean of 3.33 for solid waste reduction. They are branded as "**Always**" using proper disposal practices. However, there is space for development in the practice of solid waste reuse, with a mean score of 2.95 and a mean of 2.67 for solid waste segregation, indicating that they "**Often**" participate in this area of solid waste management.

Based on the data collected, it appears that the respondents have a strong commitment to properly disposing of and reducing solid waste, shown by their consistent placement in the "**Always**" category. This demonstrates an excellent understanding of and commitment to responsible waste management, showing the significance of proper disposal of waste and reducing the overall generation of waste.

On the other hand, a lower score suggests that solid waste reuse needs improvement. This suggests that there is room for improvement in promoting the practice of material management even though respondents participate in waste disposal to some level. Promoting involvement in this area of waste management may be achieved through raising knowledge of the benefits of reusing waste and offering helpful guidance on how to effectively incorporate reusing into everyday activities.

Because it's something they do on a daily basis, most people aim to use less and throw away things. However, because it takes a lot of patience and effort, they typically don't separate and recycle (Kamel, 2024).

Because it's often seen as a quicker and simpler solution, they might also give proper disposal and reduction first priority. While some may find segregation and reuse difficult or unable to understand its long-term benefits, it's true that it involves more work and energy. One

way to close this gap and promote more sustainable practices is through education and awareness initiatives (Hegab, 2023).

The simple mindset that surrounds modern life has made disposal and reduction a matter of routine. Discarding items is given importance in traditional systems for handling waste, and over time, this has influenced standards of behavior. People have adapted to how simple it is to get rid of things, and they rarely give the possibility of reusing them or the effects they may have on the environment much thought (Fahzy, 2019).

Sequential Explanatory Data on the perceived challenges and potential opportunities for enhancing solid waste management within the community, focusing on improving waste segregation and promoting the reuse of materials

Based on the quantitative findings, the respondents demonstrate a high level of proficiency in managing solid waste, particularly in terms of proper disposal. Efforts to minimize waste generation also seem to be a common practice among the respondents.

However, some areas need improvement. One of these is waste segregation, where respondents face challenges in distinguishing between recyclables, organic waste, and non-recyclables. Moreover, there is a noticeable lack of engagement in reusing solid waste materials. This suggests that there is a significant potential for enhancing solid waste management practices. To address these issues, it is recommended to focus efforts on promoting waste segregation and educating respondents about the benefits of reusing materials. This could lead to a reduction in waste generation and foster more sustainable and responsible waste management within the community.

Qualitative Findings

The findings and discussion were presented in the same order as the issues listed. The details are as follows: Waste Management Techniques, Awareness and Education, Community Involvement and Cooperation, Resourcefulness and Sustainability, and Health and Hygiene. The participants provided the findings for the objectives.

The information provided was based on parents' perspectives in one of Magalang, Pangpanga's barangays. Their response implies that raising awareness and implementing waste segregation methods can benefit their community. According to the parents, littering, particularly near the river, has consequences. Having said that, they have suggestions or techniques for reducing litter, raising awareness, and practicing waste segregation.

Waste Management Techniques

In terms of segregation, some strategies can be used to ensure proper categorization of waste. Including raising awareness among their barangay about the importance of proper waste management. Another way is to use separate containers or bins for distinct sorts of waste, such as paper, plastic, and organic waste. Separating them makes it easier to sort and maybe recycle materials that can be reused. Combining these strategies allows us to make substantial progress toward a more sustainable and ecologically friendly approach to local trash management.

Responses from participants indicate that recycling and organic waste segregation are two methods. Waste that can be reused is called recycled waste. It is used for crafting projects, furniture, and repurposed box construction. Banana peels, for example, can be recycled into fertilizer rather than being thrown away. Organic waste can also be utilized as fertilizer. For the sake of the barangay's safety, several parents advised not to throw away anything that you may reuse, and to avoid using throwaway cups more than once. Because the closest collector is far away, three people mentioned routine rubbish pick-ups as one of the methods. Rubbish gets collected two or three days a week. They advise finding a collector close to

their barangay in order to keep everyone, especially the kids, away from dirt and decay and to improve waste segregation so that it is simple and convenient for everyone.

There are numerous ways for waste segregation. Plastic garbage, which is non-biodegradable, causes a number of environmental and human health issues (Gupta et. al., 2022). Furthermore, inefficient waste disposal methods prevent progress toward integrated solid waste management in households. Knowledge of current practices and perception of household solid waste management is necessary for accurate decision making in the move towards a more sustainable approach. The majority of solid waste created at home consisted of compostable food scraps and recyclable plastics (Adefris et. al., 2022).

Recycling

Pagkakaintindi ku ketang recycle, instead of ugse mu keng aliwang gamit pero pweding meng a recycle like kareng bottles pwedi meng gawang pasu makanta okaya pwedi mulang gawan antimo arts and crafts makanita. Ita namang organic waste, pagkakainti ku naman kanita, antimo atin kang kunyari balat saging, gule makanyan instead of ugse mu, i compose mu nemu gawan meng fertilizer, keng non-recyclable ala kung masyadung antindyan kanita. *(My understanding of recycling, instead of throwing it away, you can recycle it like bottles, you can turn them into pots, well, you can turn them into arts and crafts. As for the organic waste, the way I understand it, for example, if you have banana peels and vegetables, instead of throwing them away, just compose them to make fertilizer. As for non-recyclables, I don't understand much about that)* OP1

Ah okay, organic waste detang mabubuluk diba, recyclable like plastic materials deta retang pweding ulit magamit ulit, and then non-recyclable retang itapon. *(Ah okay, organic waste can decompose, right? Recyclable materials like plastic can be reused, and then non-recyclable ones should be disposed of.)* OP3

Meaning to say pag recycle itang agamit mu pang pasibayu. Balamu ing kahun makanyan, agawa mung alwang bayung bage na pwedi mu pang gamitan. Patse organic naman apin retang pibalatan gule makanyan. (Meaning to say recyclables are the things that you can use again. For example, boxes like that, you can make new things that you can use again.) OP4

detang recyclable detang yapin deta ding plastic, tapus detang nabubuluk, uugse nalamu kayi alinala pweding gamitan. Pero detang plastic pwedi lapang i recycle, gawan basu, retang plastic a datukanan coke, plastic bottle pwedi lang gawan palis makanayan. kasu long process la kasi deta e. (Recyclable materials, like plastic, can be reused, while those that decompose can be composted. Plastic, for example, can be recycled and turned into new products, such as plastic bottles or furniture. However, the recycling process for plastic can be lengthy.) OP5

Segregation

Detang nabubuluk kakawani ku ampo retang mabalbal ampong papil ing organic Waste namn apin deta gagawan dang fertilizer atin mo balat gule ita, non-recyclable apin ini itang mabalbal na pweding gamitan pa. (I separate those biodegradable wastes and those broken glass and paper. When we say Organic Waste, those are the things that they make into fertilizer like vegetables peel. Non-recyclable are those broken glass that can be used again.) OP2

Responsible

Yaku kasi ing gagawan ku, aliwa liwa la deng pidudukanan kung basura. Tapus if ever karetang pwedi ku pang a recycle titipunan ku la mu, mag separate ku din, pero once naman na e pwedi, ing gawan ku pangupitan ku la, tapus ilele ku la pa after kanita kung atin kung a isip karin ku na la mu gawan pero ali ku la pa uugse, i lele ku la pa. (Because, I do what I do, I put different trash in different trash cans. Then, if there are any that I can recycle, I

just collect them, in also separate them. But once it's no longer possible, what I'll do is cut them and then put them aside first. After that, if I can think of something, I'll make them but I won't throw them away, I'll put them aside first.) OP1

ayusan masalese ing basura da ding dapat a i-ugse king piugsenan da, deng alwa kasi buri dang agad ma uugase ing basura da e. (Fix their own trash properly and throw it in the right bin. Sometimes other people just want to throw their garbage anywhere.) OP2

Syempre itang bawu ampong texture na ning basura. Tsaka asaperate mu nala man kasi plastic eya malalaso pero masisilab ya. Ing lata naman pwedi meng pisali. Pero keng case mi gagawan mi ita kasi magtinda ku tas retang lata piasali ku la para magawa lang pera. (Of course, the smell and the texture of the garbage. Also, you can separate it because plastic doesn't melt but it can be burned. For cans you can sell it. In my case, we are doing it because i am a vendor and we sell the cans so we can make money from it.) OP4

kayi, kekami kasi kakawani mila detang wet, kasi kekami dakal ing mag lutu makanyan, gule makanyan tapus pikakawani mila detang malangi, antimo ketang tindakan mi, detang plastic, detang straw makanyan. (Yes, we also try to minimize the use of plastic in our household, especially when cooking or buying groceries. We choose for reusable alternatives like cloth bags and metal straws.) OP5

Sorting waste

Lawen de itang basura da na nabubuluk ampong hindi nabubuluk para pwedi yang magawang fertilizer ampong recyclable nung malanam nala, ali kunala gagamitan. Pero let sat ba karetang grocery makanta, tapus retang box gamitan mila. (Look for the garbage that is non-recyclable and recyclable so that it can be used for fertilizer and recyclable.) OP4

Immediate disposal

Halimbawa reng disposable na basu, reng alwa lilinisan da la tas reng alwa ali

da nala. Yaku ali ku nala gagamitan ulit kasi para keng safety ning customer ku rin. (As a vendor, others still use their disposable cups but as for my case it is only one time use and I like to dispose it right away, for safety purposes.) OP4

Organizing waste

Let say na retang plastic from palengki makanyan nung malanam nala, ali kuni gagamitan. Pero let sat ba kare-tang grocery makanta, tapus retang box gamitan mila. (For example, plastic from the market can still be reused, but plastic from the grocery store should be recycled. And boxes can be reused as well.) OP3

wa ngeni okay, ngeni okay kasi atin date tsaka atin kukwang basura, kasi dati gang nokarin ugse ing basura, timo keni lele kaming sapa makanyan, gang no-karin manugse lang basura, pero ngeni atin ng kukwang basura, atin oras na manugse basura makanyan. (That's good to hear. With designated collection days and proper waste segregation, it's easier to manage and dispose of waste. Before, it must have been challenging when people just threw their trash in the river. But now, with scheduled waste collection, it's more organized.) OP5

Proper Disposal

siyempre malinis, nung istu ya ing pam-anugse basura mas masanting, mas ma-linis ya. (Of course it's clean, if the garbage disposal is correct, it's better, it's cleaner.) OP1

Like itang tuturu da, like tuturu da kung nanuytang tama na e basta basta manugse. (Like what they say, it's better to start now than never start at all when it comes to waste segregation.) OP3

Regular Pick Ups

keng metung a barangay alub ku na mu atin sanang pane mangawang basura at the same time atin halus metung o ad-wang garbage a ditukanan kung sanang a provide da reng keng manungkulan tamu diba, ita sana ing buri ku, banta sana reng buluk ampong dinat a iwasan da reng

anak ku. (In a barangay, I hope that there was someone who always picks up trash and at the same time there is almost one or two trash containers, if our officials could provide it, right? That's what I want, so that my children can avoid the rot and dirt.) OP1

Keni kasing kekami alang kukwang basura, e niya pin atin times na atin talagang misan ali da aiwasan na ugse namu keng sapa, makanta ing malalyari. Pero ita mu asuggest kumu na atin me-tung kareng brgy staff na atin lilibut keni every morning. E bali nang mamayad or makanta para mu akwa ing basura or let say na every 2 days, 3 days para mu aya-kut da. Syempre medyu hassle kasi nung atad yapa keng luwal dalan. (Since we don't have enough garbage bins, some-times there are instances where people just throw their trash in the river, which is really harmful. But it's a good suggestion to have barangay staff go around every morning to collect the garbage. Maybe they can do it every 2 or 3 days to make it more manageable. Of course, it's a bit of a hassle when they pass by the streets.) OP3

kening lugar mi, kayi mu naman e, buri mimung kayi sana itang kayi, medyu malapit ya ing pipag ugseng basura, kasi kekami medyu malaut, san pedro pa kasi e, so lulwal lapa deng anak para manguse basura, itapin mag suggest na mas malapit sana mas masanting. (In our area, it would be great if there were more accessible garbage collection points, especially since the nearest one is quite far. It's important to suggest improvements that can make waste management more convenient and efficient for everyone.) OP5

Organized Disposal

Matsura lalawen kapag magulo atya ka maka ugse king pi-ugse nan talga at ali kalat kalat ing basura. (It's not good to see if our trash is unorganized that's why we need to throw it in the right place.) OP2

Awareness and Education

When it comes to awareness and education, people should advocate and make campaigns

about segregation because it helps them spread awareness to other people. Even parents must have learned about the education of segregation, and because of their knowledge, they can teach their children as well. Each barangay should implement programs that are both educational and, at the same time, environmental.

Based on the participants' responses, there are still people who don't obey signs that prohibit littering, and they still keep throwing trash at the river. Not all people have knowledge about segregating properly. Parents suggested that it would be great if the barangay staff could regularly make announcements and educate the community about proper waste disposal. Also, there is a program wherein every 1.5 bottles of plastic you collect is exchanged for 1 kilo of rice or any other food. This program will motivate people in one community, especially parents, because food is an essential part of our daily lives. By disciplining and educating people, we can prevent the increasing waste volume in every barangay and any health problems or diseases, especially in children. Educational programs aim to raise awareness about the importance of waste segregation and provide individuals with the necessary knowledge to make informed decisions. Understanding the impact of waste on the environment motivates people to adopt responsible waste management practices. Sustainable Practices: Educating individuals on sustainable waste management practices, such as recycling, composting, and waste reduction, contributes to the development of a more environmentally conscious society (Blessing et al., 2023). In addition, every household should be encouraged to separate the garbage that can be used again or sold to junk shops to avoid adding waste volume, and parents are also advised to provide their children with water tumblers or containers (Caliwan, 2020).

Lack of Knowledge

So far, ala naman siguru reta mung pag segregate talaga, pero so far ala naman talaga. *(So far, there hasn't been much emphasis on segregating waste, but it's not really being practiced.) OP3*

Awareness

Last year naman atin meg inform kung makananu tamang pamag segregate, no-karin ing tamang pamanugs. *(Last year, we were informed about the proper way to segregate waste, and how to do it correctly.) OP3*

Seminars

medyu masakit ya, kasi ena man gaganang tawu atin pakyalam di ba, siguru pakit mu na mu makananu meng didinan sistema ing pamag kayi ning basura, bakanta mahiyakat nala mu atsu naman kasi kareng tawu yan nung bisa la keng salese ampong ali. *(It is a bit difficult, because not all people have knowledge, right? Maybe show them how you put a system in place to organize the garbage to encourage them. It's up to the person if they want it to be good or not.) OP1*

Seminar at paproject. Para kaku itang tipunan da itang plastic da tas ipakilu da keng baranggay tas bawat kilu palitan dang abyas, pamangan. Atin lang kapalit deng basura da na pamangan para ganaan la reng tawu. *(Seminar and project. For me, collecting the plastics and they will kilo the plastics in their barangay and every kilo they exchange it for rice and food. They have food in exchange for garbage so that people are motivated.) OP4*

Ignoring Warnings

Tabalu karela, basta ing kekami makanta ing gagawan mi, Diba mig lage na lang sign na bawal manugse?gagawan da parin manugse la parin ulit ulit da parin kahit na mengabit ne ing kapitan ala parin. *(We don't know. Even they are signs that prohibiting them to throw their garbage in the water, they don't obey it.) OP2*

Daily Reminder

Pakisabyan dala masalese itang istung Pamanugse basura tyaka reng dapat pidukanan da. Potang kayi atin mumunta keni sasabi na palwal dala deng basura king dalan, pero atin mag reklamo karin na kesyo ay ali ken kesyo mamawu ada, aldo aldo no man mangolektamg basura pero

deng alwa ugse keni ugse karin king gulut sapa babawalan da nala man potang kayi mag dala lang plastic ugse dala parin king sapa, dapat deng tawu deng sabyanan da alwa reng mangolekta. *(Ask them properly to throw their garbage in the right place. Sometimes someone tells us to bring out our garbage but sometimes there are people who are complaining that it stinks. We have someone who collects our trash but other people still throw their trash on the river. They don't allow people to throw their trash but they kept doing it.) OP2*

Ing pamag announce every day dareng baranggay. *(Daily announcements by the barangay help raise awareness and remind everyone about their responsibilities in waste management.) OP5*

Workshop

Siguru enough na itang weekly siguru atin mumunta keni, ok ne siguru ita. Para at least ma-maintain itang pag kaying basura. *(Maybe it's enough to visit the recycling center once a week. Okay, that sounds good. At least we can maintain proper waste management.) OP3*

Role Model

Para kaku ing pinaka effective talaga pamag promote itang responsibilities na make sure kareng brgy staff na kahit siguru..tutul dakal no man staff keng brgy tang everyday lang mag announce mag baryu baryu talaga na itang makanining pamag kaying basura and then itang atin kareng staff da na kumwa talaga kareng basura keng bale bale. Let say na mag set lang time and date, by schedule hangga keng akasanayan da na. *(To effectively promote the responsibility of waste management, it would be great if the barangay staff could regularly announce and educate the community about proper waste disposal. And the staff themselves should set an example by properly segregating their own waste. Maybe they can set a specific time and date for collection, according to a schedule that everyone is familiar with.) OP3*

Practicing Early Discipline

Actually mag start naman kasi talaga king bale ing pamanyawup, para salese ing pamanugse king basura. Basta mag start keng bale tapus hangga king turu mula reng abe mu bale, reng kids hangga kung aadapt da na hangga king akasanayan da na ita. *(Actually, it's already starting with the proper waste management campaign. It's important to instill the habit of waste segregation from a young age. Starting from home, and as the kids grow up, they will adapt to it and it will become a normal practice for them.) OP3*

Magdisiplina kareng tawu lalu kareng anak. Gyang ali la kaku sali, papaugse ku ing basura da kening basurahan mi kasi nang katsura akit pag kalat-kalat. Awsan kula talaga para mu manugse lang basura. *(Discipline people especially children. Even if they don't buy from me, I throw their trash here in our trash because it doesn't look good when it's scattered. I will actually call them just to throw trash.) OP4*

Community Involvement and Cooperation

In terms of this, parents and community members should work together to enhance the barangay. There will be activities in place to encourage residents to work together to build and improve the barangay. They can launch numerous programs and activities that encourage collaboration and contribute to the general growth of the community by working together and supporting one another. These programs might focus on issues like awareness, health, the environment, and segregation to improve the quality of life for everyone in the barangay. Through collaborative efforts and collected resources, parents and community members can affect good change and build a thriving and harmonious environment for everybody.

According to the responses of participants, to cooperate, they must help one another because they will benefit from it as well. Once the program is implemented, parents and other members of a barangay should be willing to help or participate in any program that will assist their barangay in practicing effective segregation. Head officials were in charge of imple-

menting a waste management education campaign and issuing announcements. Most parents are willing to collaborate and participate in any activities that will clean up their surroundings for the benefit of the earth, as well as to serve as role models for their children, because working together can make a difference and contribute to the growth of the barangay. Community participation in waste management can be achieved by actively participating in the disposal, transportation, and waste management processes, with a sense of awareness and responsibility for creating a clean and healthy environment. Community participation had a substantial and considerable impact on garbage production. Population exhibited an adequate association and an inconsequential impact on waste production. It is advised that interventions for invalid indicators, such as waste use, take the form of counseling or waste recycling training (Gainforth, 2016).

Community participation is essential in implementing community-based waste management. Community participation in waste management can be implemented through active involvement in the process of disposal, transportation, and waste management, with a sense of awareness and responsibility to create a clean and healthy environment. Factors that can affect waste management are population characteristics (income, age of assets), community participation, volume of waste and waste characteristics (Trushna, 2024).

Barangay action

Mas masanting kasi na reng manungkulan atin lang agenda kareng bawat barangay na bakanta abalu da na makananu ing pamag salese king basura kasi diba deng aliwa ambus makananu namu, kaya mas masanting talaga bawat baryu atin yang agenda ing manungkulan iturwanan dala banta maging aware la reng tawu kung makananu dalang asolusyunan deng basura keng bawat barangay. *(It is better because those officials to have an agenda in each barangay so that they know how to deal with the garbage, because the others just throw it away. So it's really better that every barrio has an*

agenda for those incumbents, they should teach people to be aware of how they can solve the waste in every barrio.) OP1

Deng aliwa kasi ela makiramdam e, basta ing karela, karela mu basta ding kekami naman patche gapnapun maka hiwalay na ing dapat i-ugse. Potang kayi den alwa a gagamit la king pananaman da di ba, pero dapat sabyanan da le deng manungkulan na pikawa-kawani dala deng basura da na pwedi pang i fertilizer. *(Every afternoon, we separate the things that need separation. Barangay official must inform their people to separate their trash that can be used as fertilizer.) OP2*

Ababalu mi Kasi yan, karing barangay mi sasabyan da kasi atin mag announce sasabyan da, e pweding i ugse ing basura gyang nokarin, dapat i tipun makanyan, para atin date na manugse basura. *(It's important for the barangay to make announcements and educate everyone about waste management. It's crucial to collect the waste promptly to avoid any accumulation. It's necessary to have a designated collection point.) OP5*

Community cooperation

Nung balang bale magkayi la kareng kayabe da na kumbaga keng room, ating cleaners ka ren nung balang pamilya na ating schedule ing pamag linis at eya dinat ing barangay. *(If every household can have their own designated cleaners, sort of like in a room, that would be great. If every family has a cleaning schedule and it follows, the barangay will be cleaner.) OP1*

Dapat sawup sawup tamu ika tamu rin naman ing maka tuknang keni ika tamu rin ing makinabang. *(We should help each other because we are the one who are living here and will be benefit.) OP2*

Hiring people

Maghire lang maglinis ampo maglako basura kening sapa kasi nang karakal ing dinat ka rin. *(They should hire a cleaner and garbage cleaner here in the river because there is a lot of dirt there.) OP4*

Willingness

Once na meg announce la antimanu munta ku, mag join ku, kasi once na akit da ka reng kabaryu mu na maki abe ka, nung akit da ku na mumunta ku sabyan ku tara manghikayat ka karela banta balu tamu ing retang gawan tamu, banta mabawasan ya ing egana ganang problema tamu lalu na ing basura. *(Once they announce, I will go immediately. I will join, because once the people on your neighbourhood see you joining, if they see me coming, I will say "come on" encourage them so they know what are we going to do. To reduce all our problems especially with garbage.) OP1*

100, banta ing paligid tamu malinis para murin keka tamu kareng anak murin banta pakyapusan da mu rin daragul nala rin balu da na ing dapat pamanugse. *(I am 100% willing to make our surroundings clean. We need to do it to become a role model to our children for them to do the same as they get older.) OP2*

Willing naman mag participate, nung need talaga. Willing naman kung para keng earth. *(I'm willing to participate when it's really needed. I'm willing to do it for the sake of the earth.) OP3*

Willing kung makyabe kareng makanyan bang makapag contribute ku keng kekaming barangay, at pag sawup sawup kayu keng barangay mas masaglit ing obra. *(I'm also willing to join and contribute to waste management efforts. I believe that by working together, we can make a difference.) OP5*

Prioritization

5/10 kasi eku makalako kening bale kasi magtinda ku. Makalako ku mu kening bale pag importanti talaga. *(5/10 because I can't leave our house because I have a store. I only leave the house when it's really important.) OP4*

Trading

Ita pin itang pamaggupit plastic tas ipapalit da la keng baranggay tas maging yang abyas among pamangan makanyan. *(That's it; cutting plastics*

exchange it to their barangay for rice and foods.) OP4

Health and Hygiene

Health and hygiene should apply even in segregating; it is not just about disposing of proper waste but also securing one's health by being hygienic. While disposing, people have different containers and use gloves to prevent absorptive diseases that might spread to their house. One's health is a top priority in everything that a person does, which is why practicing disposal can make a barangay safe and secure. Based on the opinions of the participants, diseases in the barangay did not spread because the barangay is clean, and it is pleasing if a place is clean, so when someone throws a trash, he/she makes sure to dispose of it in the right bin. By reducing waste, people are not just helping out the environment; they are also saving money, reducing pollution, and minimizing the negative impact on nature. One of the fundamental health educations is a healthy lifestyle through environmental hygiene management. Environmental cleanliness is determined by how waste is managed in that environment (Yuniarti, 2022). Furthermore, environmental cleanliness is greatly influenced by the behavior and mindset of the people residing in that area. Therefore, it is a fundamental necessity for the community to understand a healthy lifestyle, one of which is understands how to manage the waste or household waste generated (Fadhullah, 2022). Waste management has garnered attention from various parties, including researchers in science, health, and education (Abubakar,2021).

Preventing disease

Atleast a linis mu ne ing kayi yu bale ing sukal sukal banta ing lamok milako, malwalas akakit ing paligid kapag malinis pa, gagawan ku ita para eke mag ka sakit. *(Diseases cannot grow if we clean our community and also it is good to look if our place is clean.) OP2*

Visually appealing

Pag menugse kang basura keng istung basurahan, masanting lalawen keng mata

ampo malwalas. *(When you throw trash in the right bin, it is pleasing in the eyes.) OP4*

Helping Nature

Mababawas ing kayi kekami, mababawas ing lango, mababawas ing marinat makanyan. *(By reducing waste, we are not only helping the environment but also saving money, reduce pollution, and minimize the negative impact on nature.) OP5*

Resourcefulness and Sustainability

Based on the opinions of the participants, it is evident that their community is deeply committed to fostering resourcefulness, sustainability, and cleanliness. They recognize the importance of reusing materials, particularly plastics, as a means to reduce waste and conserve resources. By finding creative ways to repurpose items such as bottles and candy wrappers, they not only minimize their environmental footprint but also contribute to a more sustainable lifestyle. Moreover, the participants emphasize the numerous benefits associated with their actions, including the prevention of diseases, reduction of pollution, and promotion of overall health for themselves and future generations. Their motivations, driven by concerns for the safety and well-being of their families, serve as powerful catalysts for their dedication to cleanliness and sustainability.

Furthermore, community engagement and collective action are central to their efforts. Through organized waste collection initiatives and regular clean-up drives, they demonstrate a strong sense of responsibility towards their environment. By working together, they not only address immediate cleanliness concerns but also foster a sense of shared ownership and commitment to their surroundings. However, the participants also acknowledge the challenges they face, such as limited resources and infrastructure for waste management. They express a desire for improved systems and support for garbage segregation and disposal to further enhance their sustainability efforts. Sustainable waste management can serve as a solution to the mentioned problems caused by improper waste disposal. When sustainably handled, waste can be utilized as a vital resource concerning the considerable amount of

energy that can be recycled and produced from solid waste (Traven, 2023). Furthermore, waste-to-energy, also known as energy recovery, conserves resources and supports environmental and human protection through the process of converting waste into sources of fuel (Mohammadi, 2020).

Resourceful

Ali masyadu, ali madalas reng plastik kasi lelele mi la tapus bibiye mi la kareng mangalakal kasi metung la pang makakalat keng sapa kaya pamiye mi nala mu banta apakinabangan dala pa. *(Not that much. We often collect plastics because we will give it to the traders to make it beneficial to them. If we don't do that, our river will be full of trash.) OP1*

Deng alwa pamisali mila, deng mabalbal naman uugse mila king istung ugsenan para mu rin maka iwas king sakit. *(We throw those unnecessary things in the right bin and we sell the things that can be sold to avoid being sick.) OP2*

Yes, recyclable materials like Wilkins bottles and some plastics can be recycled and reused. *(Yes, recyclable materials like Wilkins bottles and some plastics can be recycled and reused.) OP3*

Ali minala e, pero atin kaming gagamitan detamung plastic-plastic chitchirya makanyan. Karing kayi pamplastic milang yelu ampong candy pag atin sasali keng tindakan makanyan. Maka tilid kami kasi e, makatipid kami kareng plastic. Kasi reng plastic ngeni makamal diba. *(That's understandable. But we still find ways to reuse plastic, especially for small items like candy wrappers or when purchasing items from the store. It helps us save on plastic consumption, especially since plastic waste is becoming a big concern.) OP5*

Reusing

Reng bottles as much as possible gagamitan ku la pa mu din, nung ena la man delikadu gamitan, gamitan at gamitan mi la pa din. *I still use the bottles as much as possible. If they were not harmful to use, we would still use them (OP1)*

Awa, retang plastics makanta hangga't nung pwedi la, detang kekami kasi pag ali mino talaga apakinabangan paugse kuno talaga para di ali na masta-dung makalat. *Yes, plastics can be recycled as long as they are still usable. We should really make an effort to benefit from them before they become litter.* (OP3)

Bali kakayan milamu sasabyan mila retang, pweding gamitan ilele mila para pag kayi atin kaming gamitan makanta. *That's a good approach. Reusing items whenever possible is a great way to reduce waste and make the most out of what we have.* (OP5)

Beneficial

Ali ku, ikami kasi around 5:30 mag fogging na kami kareng lamuk, kasi kung apapansinan yu talagang karekalan plastik marinat paka kubul ing basura. *Of course the benefits of proper garbage segregation it is clean, it can avoid many mosquitoes, diseases and flood because mostly caused by garbage is flood, the water is funded. I hope there was a system for trash segregation.* (OP1)

Ita, ing maging benefits mu naman simpli mu, a save taya i mother earth. *Yes, the main benefit is that we are saving our mother earth.* (OP3)

Ing benefits na masanting a kapaligiran, tapus malinis keng panakit, alang dinat o basura a kalat kalat. *The benefits of having a clean and sustainable environment are numerous. It promotes health, prevents pollution, and eliminates the presence of scattered garbage.* (OP5)

Maintaining Cleanliness

Abak pa mamalis na ku, emu keng lugar mi pati keng dadalanan mi. *At a very early time, I start cleaning. I clean not just in our place but also in our street.* (OP1)

Aldo Aldo ka maglinis, mag recycle ka n pwedi mu pang agamit. *You should clean everyday, find things that you can recycle and what things that you can use again.* (OP2)

Minsan mag participate kami. Antimo keni atlu kamimu keng bale, pag alang mangwang basura, ikami mismu ing mag collect basura para sabe sabe ng i drop ing basura ketang san pedro. *Sometimes, we actively participate in waste collection. When there is no garbage collection, we take the initiative to collect the waste ourselves and ensure that it is properly disposed of. This helps maintain cleanliness in our community.* (OP5)

Cleaner and Safer Environment

Kasi kanaku buri ku mu talaga lumini ya ing area ku, ing pidadalan ku, kasi ing mag udyuk talaga ka ku ing kaligtasan da reng anak ku lalu na kareng lamuk, kanal ing peka main goal ku is maging malinis ya ing area mi. *Because for me, all I really want is my area to be clean and our community as well. What truly motivates me is the safety of my children, especially from mosquitoes. My main goal is to make our area clean.* (OP1)

Ita ulit, a save yay mother earth deng susunud na generation mas maging healthy la pa sana kasi nga keng basurang malalyari kung nokarin nokarin manugse, Syempre deng anak mag kasakit la makanta. *Again, by saving our mother Earth, the next generations will have a healthier environment because we are reducing the harmful effects of waste mismanagement. It's important for the children's well-being.* (OP3)

Kalinisan makanayan, para maging malinis kening kayi mi baryu mi. *Cleanliness is essential for the well-being of our community. By maintaining cleanliness, we create a healthier and more pleasant living environment.* (OP5)

Response to Waste Management

The perspectives shared by the participants offer a nuanced view of waste management within their community, revealing both challenges and areas of satisfaction. Concerns about the lack of awareness are evident, with some individuals noting reluctance to reuse items due to a perceived abundance of re-

sources. This lack of consciousness is compounded by visible accumulations of garbage, prompting disappointment among community members who recognize the disconnect between actions and their environmental consequences. Additionally, there is frustration over the inconsistency in waste management efforts, as promises of action often fail to materialize effectively. However, amidst these challenges, there are also glimmers of satisfaction and hope. Some participants express contentment with the concept of recycling, acknowledging its significance in preserving the environment and even its potential to yield financial benefits. Moreover, insights into the frequency of waste collection suggest a level of organizational effort within the community, with collections occurring twice a week, occasionally supplemented by additional pickups. Nevertheless, the importance of discipline in waste management cannot be overstated. Despite regulations, littering habits persist, highlighting the need for a concerted effort to instill responsible behaviors. Overall, these perspectives underscore the complex nature of waste management and the multi-faceted approach required to address its challenges effectively, encompassing education, community engagement, and enforcement measures. Poor waste disposal practices hamper the progress towards an integrated solid waste management in households (Fadhullah, 2022). It is also affected by lack of awareness, weak regulatory frameworks and enforcement, lack of economic incentive and a low priority in planning (Batista, 2021).

Lack of Awareness

Dakal la kasi stock, edanala iisipan deng alwa banta enala magkasakit king bie. *Other people have enough supply. They don't reuse things others because they don't want to suffer. (OP2)*

Disappointed

Ali ku, ikami kasi around 5:30 mag fogging na kami kareng lamuk, kasi kung apapansinan yu talagang karekalan plastik marinat paka kubul ing basura. *I'm not, because around 5:30, we were fogging the mosquitoes. Because if you really*

notice, most of the garbage is dirty and piled up. (OP1)

Inconsistency

Mga 7, kasi deng sasabyan da minsan edala gagawan, puro la salita balamu deng alwa gagawan da pero para king sarili da mu. *I think 7/10 because sometimes they are just good at words and not at work. (OP2)*

7/10 kasi reng alwang basura keni ali la man makakwa. Kung nanu mu ing akit da ita mu ing kunan da. Ena man kasi talagang malinis tas pag mebusbus ing saku ala lang pakyalam. *7/10 because the other trash are not being collected. What they see that's the only trash they will pick. (OP4)*

Satisfied

Ah ita, para masave ya ing mother earth kasi kailangan ya, actually ita madagul yang sawup utang pamag recycle eh masagli mu naman, and then mas makatipid ka pa I think. *Ah yes, to save the mother earth because it's necessary. Actually, it's a big responsibility to recycle. It can also help you save money. I think it's a win-win situation. (OP3)*

Keng 1 week twice every monday ampong minsan 7 Wednesday and Friday. *Collection days are twice a week, every Monday, and sometimes on Wednesdays and Fridays. (OP5)*

Discipline

Disiplina, kasi patse lumawe ka keng sapa sapak ya talagang basura. Ugali da na ita gyang dakal na babawal karela. *Discipline, because when you look at the river, it's really full of garbage. They have a habit of littering that even though it is allowed to them. (OP4)*

Summary

The interviews provided insightful information about a range of community waste management issues including waste segregation, awareness and education, community involvement, resourcefulness, and the response of the community to waste management.

Parents highlighted the significance of recycling, the critical role in proper garbage sorting and the need to raise awareness about appropriate waste disposal procedures. Furthermore, the significance of community cooperation and involvement was emphasized as a necessary element for efficient trash management. Parents demonstrated their willingness to engage in initiatives targeted at enhancing waste management techniques.

In addition, the results of the interviews demonstrated that parents understood the value of sustainability and resourcefulness, emphasizing the need to reuse items in order to reduce waste and conserve resources.

Conclusion

The discussions with parents emphasize how crucial it is to handle different waste management issues in order to improve the community's general sustainability and cleanliness. It is clear that focus is needed for the implementation of appropriate waste sorting processes and raising awareness through educational initiatives.

Furthermore, encouraging community-wide participation and cooperation is essential for waste management projects to be effective. There is a noticeable amount of satisfaction with current recycling programs, showing a ready for additional improvements, despite obstacles including uneven waste management methods. Through the resolution of these issues and the utilization of current contentment, the community may shift toward a more environmentally friendly method of trash management.

Recommendation

To address the identified challenges and improve the waste management practices within the community, several recommendations are proposed. Firstly, it is crucial to start focused educational initiatives to inform community members about waste segregation and disposal. Numerous platforms, including social media, school initiatives, and community forums, can be used to carry out these efforts. Second, planning frequent trash collection days and clean-up campaigns can promote a sense of community and inspire residents to engage

themselves in proper solid waste management. Furthermore, encouraging ingenuity among locals by teaching them innovative methods to recycle objects and reduce trash production can make a big difference in sustainable waste management techniques. The community may achieve a cleaner and more ecologically friendly living environment by putting these suggestions into practice and encouraging cooperation amongst stakeholders, local government, and residents.

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