**Herstory of a Mother: Knowledge, Attitudes, and Practices Behind the Bins**

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**Abstract**

Solid waste management (SWM) is a critical environmental challenge intensified by urbanization and population growth. This study, titled "Herstory of a Mother: Knowledge, Attitudes, and Practices Behind the Bins," investigates the fundamental role of mothers in household SWM in Davao City, Philippines. Using a qualitative approach, the research explores the knowledge, attitudes, and practices (KAP) of mothers regarding waste segregation, disposal, and recycling. Data were collected through in-depth interviews among mothers from different socio economic classes to understand how and why they made certain decisions in managing waste.

According to the findings, such gaps can also be found among the mothers as most have some basic knowledge on SWM policies including the penalties associated with them. Mothers' attitudes reflect a strong sense of responsibility and commitment to educating their households about proper waste practices. Inconsistency in collection of garbage off the street and lack of facilities have hindered waste management activities. The study underscores the importance of community participation, local policy enforcement, and educational interventions in addressing these barriers.[5]

By highlighting mothers' lived experiences, this research provides actionable insights for enhancing community-based SWM strategies and fostering environmental sustainability.

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**Chapter 1**

**INTRODUCTION**

Solid waste management is becoming a significant global environmental issue. With the increasing urbanization and population rate, the solid waste problem continues to grow. Indeed, in Davao City, Philippines, the rising generation of waste is a formidable challenge requiring community-based solutions. Mothers are key actors in this dynamic scenario since they are the first and primary caregivers and managers of the household, in whose hands the practice of household waste management is mainly located. Their decisions can influence day-to-day actions, such as waste segregation and proper disposal of biodegradable and non-biodegradable materials, making them agents of crucial importance in solid waste management initiatives.

This study investigates mothers' knowledge, attitudes, and practices, which are crucial in developing targeted interventions to improve waste management outcomes. Their behaviors and decisions directly affect the success of broader community-level solid waste management programs. The research is titled "Herstory of a Mother: Knowledge, Attitudes, and Practices Behind the Bins," exploring the lived experiences and perspectives of mothers in Davao City, offering valuable insights into their role in waste management.

This research highlights the importance of local policy frameworks, like Ordinance No. 0361-10, as examples of how the Davao City Government strives to deal with solid waste management problems. The effectiveness and success of these policies depend more on the active participation and compliance of the community, particularly mothers, who are primarily in charge of most household wastes. Using a qualitative approach, this research aims to bring out the unique experiences and contributions of mothers in Davao City, their unique experiences in waste management endeavors, and their drivers and barriers (Davao City Government, 2010 and Ferronato & Torretta, 2019)[6][8].

Through the socio-demographic characterization of the respondents and analysis of their KAP, this study will attempt to present a more detailed perspective of their involvement in SWM. The results will not only elucidate the critical role of mothers but also help shape future strategies to enhance community engagement and policy effectiveness for sustainable waste management.

**Significance of the Study**

The importance of this study is based on targeting mothers, who usually are responsible for household waste management. Capturing the nuanced narratives of each respondent, this research highlights the intersectionality of individual agency and household-level dynamics with SWM interventions at the community level. It adds to the growing body of SWM literature by:

1. This particular study contributes to the existing information on the state of solid waste management in terms of knowledge, attitudes, and practices. This study highlights mothers' knowledge of waste management policies, environmental attitudes, and actions in waste segregation and disposal.
2. Gap and Challenges Identification**:** The study provides insights into knowledge gaps, systemic problems, and socio-cultural barriers, reflecting a rich understanding of what factors hinder the best SWM practices.
3. The results of this study may assist local authorities in establishing local policies and programs. The insights they provide can inform tailored interventions, like community-based education initiatives, infrastructure improvements, and enhanced enforcement measures, to drive the adoption of sustainable waste management practices.
4. Encouraging Community Participation**:** The study underlines the importance of households, barangay officials, and government agencies working together to achieve long-term environmental goals and more sustainable community practices.

**Scope and Limitations**

This qualitative research study assesses mothers' knowledge, attitude, and practices (KAP) on SWM in Davao City. The scope includes:

1. The study involved a heterogeneous sample of diverse socioeconomic and demographic backgrounds to cover a comprehensive perspective of household solid waste management practices in different domestic settings.
2. In analyzing the data, we focus on four areas of interest: getting a sense of participants' knowledge of solid waste management, looking at participants' attitudes towards waste management, looking at participants' waste management practices, and finding out what recommendations participants have.
3. In-depth interviews were conducted using semi-structured questionnaires in this study. The data collection was documented, transcribed, and analyzed using thematic coding methods.

However, the study does have some limitations:

1. **Sample Size:** The findings may not generalize among the mothers in Davao City or to mothers in other urban settings due to their low sample size.
2. **Limitation in Geographical Aspect:** The research is confined only to Davao City, and as such, the findings may not accurately represent solid waste management in some other regions where socioeconomic and cultural milieu may differ.

The study provides significant information about mothers' perceptions and practices regarding domestic waste management, which can help guide future research and policies on solid waste management.

**Statement of the Problem**

Existing research on SWM often focuses on technical and infrastructural aspects or broad community practices, overlooking the specific contributions and challenges faced by mothers. While gender roles in waste management are acknowledged, there is a lack of in-depth understanding of how mothers' KAP shapes household and community-level outcomes. This study addresses this gap by examining the unique role of mothers and identifying actionable strategies to promote sustainable SWM. Specifically, the study attempts to answer the following questions:

1. What do the mothers know regarding solid waste management and environmental implications in Davao City?

2. How do mothers perceive their role and responsibilities in promoting sustainable waste practices?

3. What are the common practices and challenges faced by mothers in Davao City related to waste segregation, disposal, and recycling?

**Objectives of the Study**

1. The study aims to provide valuable insights into the role of mothers in solid waste management and contribute to the development of effective strategies for promoting sustainable waste practices in Davao City.

2. The research problem focuses on understanding the Knowledge, Attitudes, and Practices (KAP) of mothers in Davao City regarding solid waste management.

3. It aims to explore their perspectives, beliefs, and behaviors related to waste disposal, recycling, and environmental sustainability.

**Chapter 2**

**REVIEW OF RELATED LITERATURE**

**The Ecological Solid Waste Management Act of 2000.** The Republic Act (RA) 9003, or the Ecological Solid Waste Management Act of 2000, was enacted to provide an effective and systematic ecological solid waste management program in the Philippines. It sets the guidelines for waste management from collection to disposal and focuses on reducing waste generation, promoting recycling, and encouraging proper waste segregation. RA 9003 requires the segregation at source. Households, industries, and commercial establishments should separate their waste into different categories, such as biodegradable, recyclable, and special waste.

The law promotes various strategies to reduce waste generation, including source reduction product reuse, and recycling. The National Solid Waste Management Commission (NSWMC) oversees the implementation of the National Solid Waste Management Framework and coordinates the efforts of various government agencies. The Department of Environment and Natural Resources (DENR) Secretary is tasked to Chair the Commission.

The Local Government unit shall construct a Materials Recovery Facility (MRF). The MRF is the solid waste transfer station or sorting station, drop-off canter, composting facility, and recycling facility. It establishes guidelines for the efficient and environmentally sound collection and transport of solid waste. The law mandates the proper treatment and disposal of solid waste, including composting in the backyard or in the Barangay, recycling, and sanitary landfills. Penal provisions and penalties are acted upon by the citizens and local authorities.

**Davao City Ecological Solid Waste Management Ordinance of 2009**. Davao City Ordinance No. 0361-10, also known as the *Davao City Ecological Solid Waste Management Ordinance of 2009*, serves as a landmark policy for promoting sustainable waste management practices in Davao City. Enacted to align with Republic Act 9003, the *Ecological Solid Waste Management Act of 2000*, this ordinance establishes a comprehensive framework for reducing, recycling, and properly disposing of waste within the city.

The ordinance mandates the segregation of waste at the source into biodegradable, non-biodegradable, recyclable, and special wastes. It emphasizes the role of barangays in the establishment and management of Materials Recovery Facilities (MRFs) to enhance waste segregation and recycling efforts. Additionally, it imposes penalties for non-compliance, including fines and community service, to ensure proper enforcement.

A critical feature of this ordinance is its focus on public participation and education. It seeks to cultivate environmental awareness among citizens through community engagement and information campaigns. By involving local stakeholders and emphasizing waste reduction at the source, the ordinance aims to mitigate the environmental impacts of improper solid waste disposal, such as pollution and flooding caused by clogged drainage systems.

However, challenges in implementation persist, including limited infrastructure, insufficient public compliance, and financial constraints. Strengthening enforcement mechanisms and fostering stronger partnerships between the local government, private sector, and community organizations are key to realizing the ordinance’s goals.

**Mother as Household Waste Manager.** Women in the households are primarily, if not solely, responsible for managing household waste and inclined to recycle (Ocean Conservancy, 2019), they are considered dedicated and pay attention to details and are thus preferred for activities such as plastic sorting (UNEP, 2022)[11]. Asmara et al. said that mothers can become environmental educators[2]. Women or housewives are the first educational medium for children. (Muang et al., 2021)[10], explain that women can participate as "clean environment" agents by providing education and insight to families, especially children, about the environment.

According to Wulandari et al. (2021)[14], children who grew up in environmentally friendly lifestyles will get used to protecting the environment. Through mothers, education, and awareness about environmental care can be instilled in children from an early age and it will affect the community (Zakianis et al., 2018)[15]

Recycling activities start from household waste such as children's toys, buckets, flowerpots, household items, newspapers, and magazines, or waste management by composting (Ayilara et al., 2020)[3]. Zero waste and Recycling in the house are useful (Bogusz et al., 2021)[4].

**Theoretical Framework**

This study will be anchored in the Theory of Planned Behavior (TPB), which makes an assumption that individual behavior is guided by attitudes, subjective norms, and perceived behavioral control. By understanding these elements, the study seeks to uncover the underlying factors shaping mothers' waste management practices. Additionally, Ecological Systems Theory will be used to examine how various environmental and societal factors influence mothers' SWM behavior.

**Chapter 3**

**METHODOLOGY**

**Research Design.** The study used a qualitative research design in a phenomenological approach, utilizing in-depth interviews to explore the KAP of mothers regarding SWM in the household.

**Participants.** A total of 10 mothers of various socio-economic backgrounds purposively sampled to represent communities from three (3) districts of Davao City. Inclusion criteria were based on age, marital status, number of children, and household income.

**Data Collection.** A semi-structured questionnaire of open and closed-ended questions about socio-demographics, households’ knowledge, attitudes, and practices towards SWM was given. Follow-up questions were asked to clarify or to allow researchers to dig into specific areas of the topic. First, the questionnaire was prepared in English and translated to Bisayan (local language). Some participants were interviewed face-to-face, while some were interviewed online. Interviews held are recorded,  transcribed, and reviewed. Field observation was conducted on another day to understand the actual households’ practice towards SWM.

**Data Analysis.** Data were coded, categorized, and analyzed. Thematic analysis identified themes and patterns within the data.

**Chapter 4**

**RESULTS AND DISCUSSION**

**Socio-demographic Profile of the Participants.** A total of 10 mothers from Davao City who came from various demographic and socioeconomic backgrounds participated in the study, as shown in Table 1. In terms of age, there were 2 participants in the 21-30 and 31-40 age brackets, 3 participants were aged 41-50, 1 was aged 51-60, and 2 were in the 61-70 age bracket. The household composition was rather balanced as 5 participants had five or fewer household members while 5 had six or more. As for the level of education, 1 participant had not completed high school, 2 were high school leavers, six were university graduates, and one possessed a postgraduate degree. In contrast, none of the participants is reported as being an undergraduate. There were differences in employment status, with one participant being unemployed, two self-employed, and two involved in government work, while five were employed in the private sector. The household income was also heterogeneous, with two participants reporting below-average income while 5 indicated their income as average and 3 above the average. This profile exemplifies the heterogeneity of the participants in terms of age, household, education, occupation, and income.

*Table 1. Socio-demographic Profile of Participants*

|  |  |
| --- | --- |
| **Age** | |
| 21-30 years old | 2 |
| 31-40 years old | 2 |
| 41-50 years old | 3 |
| 51-60 years old | 1 |
| 61-70 years old | 2 |
| **Household Composition** | |
| 5 members and below | 5 |
| 6 members and above | 5 |
| **Educational Background** | |
| High School Undergraduate | 1 |
| High School Graduate | 2 |
| College Undergraduate | 0 |
| College Graduate | 6 |
| Post Graduate | 1 |
| **Occupation** | |
| Unemployed | 1 |
| Self-Employed | 2 |
| Private Employed | 5 |
| Government Employed | 2 |
| **Household Income** | |
| Below Average | 2 |
| Average | 5 |
| Above Average | 3 |

Researchers conducted in-depth interviews to get the participants' answers to a semi-structured questionnaire that would give data on analyzing their knowledge, attitudes, and practices towards solid waste management in their household. Interviews were recorded, transcribed and coded for thematic analysis. Four topics emerged from the thematic analysis of KAP of mothers behind the bins. The themes were *(1) Knowledge on Solid Waste Management, (2) Attitudes Toward Waste Management, (3) Practices in Waste Management and (4) Recommendations for Improvement.*

In Table 2, the themes and sub themes on knowledge of mothers on SWM are constructed based on the data collected during the interview. The subtheme includes (1a) Awareness of Davao City Ordinance No. 0361-10, (1b) Understanding of Waste Types and Segregation and (1c) Environmental and Health Impacts that summarizes the general awareness and limited knowledge on penalties, gaps in knowledge about certain waste categories, and their knowledge on disease risks, flooding and pollution, respectively. The table disclosed different level of familiarity in particular on the Davao City Ordinance No. 0361-10. Some, for instance, Participants 1, 5, 7 and 8, were reportees of the ordinance but could not mention the sanctions on the violations of the said ordinance in detail. This four participants agree that their awareness of the ordinance is limited. This corresponds with the findings in literature, such as Medina, 2010 that, community understanding of waste management policies encourages them to follow the policies[].

*“Yes, I have heard about it but does not have much knowledge. I do not know the penalties if such violations is committed” (P1)*

*“Oo, pero ako nahibal an kay ang saktong paglabay sa mga basura. Wala koy saktong impormasyon bahin sa pag-implementar ug silot sa paglapas sa ordinansa” (P5)*

*“Yes, I do know, but I do not know how much in particular the penalties every sanction” (P7)*

*“Opo, I am aware of that but then hindi sya masyadong nai-enforce. Hindi ako aware about the penalties”  (P8)*

In addition to this, mothers had some basic knowledge about waste management by ways of classifying the waste into biodegradable, recyclable, and non-degradable or residual substances, while some also confessed that they did not know much about some specific types of waste. This emphasizes the role that education and awareness campaigns play, as the United Nations Environment Programme (UNEP, 2016) notes, dissemination of knowledge underpin effective solid waste management[11].

*“Residuals or waste that cannot be recovered are thrown, the biodegradable is thrown in the root/ bark of a tree” (P2)*

*“Akong nasabtan, ang biodegradable kanang malata sama sa panit sa prutas ug dahoon. Ang recyclable mao tong mga plastic, empty bottle. Ang residual kanang napkin, mga diaper, buak na glass. Unya ang special waste cooking oil or used oil” (P9)*

*“Biodegradable- Malata like papel, dahon, food waste. Recyclable-plastic, metals, wood, Residual-like mga mask, gamit sa hospital like injection, dextrose.  Special Waste-wala ko kabalo, tulo ra sa akong nahibal-an” (P10)*

Also, the participants had a cognition of the adverse consequences or effects of poor waste management including disease transmission, flooding, and pollution. According to Wilson et al. (2012, pp.20)[12] “the people’s health and environment have impacts from the improper handling or waste disposal.”

*“Health risk, spread of contagious disease thru waste exposure, improper disposal of garbage collectors of waste can also lead to flooding” (P3)*

*“Ug di macontrol ug tarong ang hugaw ug wa ma tarung ug hipos kini, mudulot kini sa paglaganap sa sakit, kabaho ug kagaw” (P4)*

*“kini mahimong hinungdan sa polusyon ug pagbag-o sa klima” (P6)*

*“If you litter it can cause flood, it could harbor microorganisms and a breeding place for mosquitos” (P7)*

*Table 2. Knowledge of Mothers on Solid Waste Management*

|  |  |  |
| --- | --- | --- |
| Theme | Sub-theme | Supporting Statements |
| Knowledge of Solid Waste Management | 1. Awareness of Davao City Ordinance No. 0361-10   *(General awareness and limited knowledge on penalties)* | *Yes, I have heard about it but does not have much knowledge. I do not know the penalties if such violations is committed (P1)*  *Oo, pero ako nahibal an kay ang saktong paglabay sa mga basura. Wala koy saktong impormasyon bahin sa pag-implementar ug silot sa paglapas sa ordinansa (P5)*  *Yes, I do know, but I do not know how much in particular the penalties every sanction (P7)*  *Opo, I am aware of that but then hindi sya masyadong nai-enforce. Hindi ako aware about the penalties  (P8)* |
| 1. Understanding of Waste Types and Segregation *(General  knowledge but gaps in knowledge about certain waste categories)* | *Residuals or waste that cannot be recovered are thrown, the biodegradable is thrown in the root/ bark of a tree (P2)*  *Akong nasabtan, ang biodegradable kanang malata sama sa panit sa prutas ug dahoon. Ang recyclable mao tong mga plastic, empty bottle. Ang residual kanang napkin, mga diaper, buak na glass. Unya ang special waste cooking oil or used oil (P9)*  *Biodegradable- Malata like papel, dahon, food waste. Recyclable-plastic, metals, wood, Residual-like mga mask, gamit sa hospital like injection, dextrose.  Special Waste-wala ko kabalo, tulo ra sa akong nahibal-an (P10)* |
| 1. Environmental and Health Impacts *(disease risks, flooding and pollution)* | *Health risk, spread of contagious disease thru waste exposure, improper disposal of garbage collectors of waste can also lead to flooding (P3)*  *Ug di macontrol ug tarong ang hugaw ug wa ma tarung ug hipos kini, mudulot kini sa paglaganap sa sakit, kabaho ug kagaw (P4)*  *kini mahimong hinungdan sa polusyon ug pagbag-o sa klima (P6)*  *If you litter it can cause flood, it could harbor microorganisms and a breeding place for mosquitos (P7)* |

Table 3 highlighted the subthemes on Attitudes which are (2a) Role of Mothers in Waste Segregation and (2b) Importance of Educating Household Members. It showed their strong sense of responsibility in maintaining cleanliness and order in their households. Many, like Participant 2, identified themselves as primary enforcers of waste segregation, a role supported by research from Al-Khatib et al. (2015)[1], which notes that women often drive sustainable practices within families.

*“I was the one assigned in the segregation” (P2)*

*“ako jud gina siguro na hinlo among balay labi na naa kami mga bata arun iwas sakit ug hugaw”(P3)*

*“Ako ang naga prepara sa mga sudlanan o basurahan na nakasegregate ang malata ug dili malata” (P4)*

*“Ang akong papel mao ang paggiya ug pagtudlo sa akong pamilya sa kahinungdanon sa husto nga paglabay sa basura” (P5)*

*“I am empowering them to segregate waste” (P6)*

*“Kung ano talaga ang ginagawa ng role model then it will cascade to others na na gawin na rin yun” (P8)*

Mothers also stressed the importance of educating their household members about proper waste management. Participant 6 expressed disappointment when others failed to comply, underscoring the emotional toll of non-cooperation. This perspective is supported by Bandura’s social learning theory, which suggests that role modeling within households significantly influences behavior (Bandura, 1977)[4]. These attitudes reflect a commitment to fostering a culture of environmental responsibility within their families.

*“ako jung ginasiguro na kabalo akong mga sakop sa proper waste management arun kami layu sa hugaw ug kagaw” (P4)*

*“Kini kaayo importante kay ang dili maayong pagdumala sa basura makaapekto sa among panglawas ug sa komunidad. Mabalaka ug masuko ko kung dili nila sundon ang akong mga lagda sa pagdumala sa basura sa balay” (P6)*

*“I feel sad if they do not follow me, because our house would really be messy and dirty. Cleanliness is very important to me as well because I have a baby” (P7)*

*“Importante jud kayo na ma educate sila bahin sa pag segregate sa basura kay kung ako ra inahan ang mutrabaho ana, sila kay labay nga labay lang. Syempre madisappoint, masuko, malagot kay nganong wala nituman” (P9)*

*Table 3. Attitudes of Mothers on Solid Waste Management*

|  |  |  |
| --- | --- | --- |
| Theme | Sub-theme | Supporting Statements |
| Attitudes Toward Solid Waste Management | 1. Role of Mothers in Waste Segregation *(Perception of responsibilities and motivation to maintain cleanliness)* | *I was the one assigned in the segregation (P2)*  *ako jud gina siguro na hinlo among balay labi na naa kami mga bata arun iwas sakit ug hugaw (P3)*  *Ako ang naga prepara sa mga sudlanan o basurahan na nakasegregate ang malata ug dili malata (P4)*  *Ang akong papel mao ang paggiya ug pagtudlo sa akong pamilya sa kahinungdanon sa husto nga paglabay sa basura (P5)*  *I am empowering them to segregate waste (P6)*  *Kung ano talaga ang ginagawa ng role model then it will cascade to others na na gawin na rin yun (P8)* |
| 1. Importance of Educating Household Members *(Emphasis on teaching household members and emotional responses to non-compliance* | *ako jung ginasiguro na kabalo akong mga sakop sa proper wast management arun kami layu sa hugaw ug kagaw (P4)*  *Kini kaayo importante kay ang dili maayong pagdumala sa basura makaapekto sa among panglawas ug sa komunidad. Mabalaka ug masuko ko kung dili nila sundon ang akong mga lagda sa pagdumala sa basura sa balay (P6)*  *I feel sad if they do not follow me, because our house would really be messy and dirty. Cleanliness is very important to me as well because I have a baby (P7)*  *Importante jud kayo na ma educate sila bahin sa pag segregate sa basura kay kung ako ra inahan ang mutrabaho ana, sila kay labay nga labay lang. Syempre madisappoint, masuko, malagot kay nganong wala nituman (P9)* |

Table 4 showed the subthemes on Practices which are (3a) Waste Segregation in Households, (3b) Food Waste Management and (3c) Challenges in Waste Management. It presented Participant’s detailed methods of waste segregation, including the use of labeled bins and separate collection schedules, as noted by Participant 9. However, some admitted to relying on garbage collectors for segregation, indicating a gap in household participation. Zurbrugg et al. (2012) [16] emphasized that active household engagement is essential for successful waste management systems.

*“Yes, I trained even my grandchildren. They are already aware how to separate wastes” (P1)*

*“Several trash can and bins inside the household for different kind of trash, food waste always in a different bag” (P3)*

*“Oo naga segregate mi sa mga basura ang mga ma ipon na mga malata na basura ginagamit nakong organic fertilizer”  (P5)*

*“Oo. Sa among balay, naghimo mi ug mga basurahan nga adunay label alang sa mga kategoriya sa basura, ug ang akong pamilya mosunod niini” (P6).*

*“Sa amo ginapractice namo. Ang pwd pa ibaligya kay ako ibaligya sa bote bakal. Ang malata kay akong ibutang say uta para sa mga bulak” (P9)*

*“wala namo ni matuman pero akong gina siguro jud na mahipos ang among mga basura ug nakatapok sa tuyoanan nga labayanan” (P4)*

*“We don’t segregate kay naanad na nga ang ga collect na ug basura ang nag segregate” (P10)*

Participant 11, a carbage collector who was interviewed to validate statements on relying to them the segregation process confirmed that they are not strict in implementing segregation since they are the doing it at the dumping site.

*“Wala man nato na ginabuhat diri… kami na pag-abot didto.” (P11)*

Food waste management practices varied, with some participants composting, such as Participant 6, while others repurposed food waste as animal feed. This aligns with FAO (2013)[6], which highlights composting as a sustainable strategy for handling biodegradable waste.

*“our food waste are usually used for pig feed” (P1)*

*“Ang mga foodwaste na basurah ginagamit nakong organic fertilizer sa ako mga tanom” (P5)*

*“Nag-compost mi sa mga pagkaon, balat sa gulay, o biodegradable nga basura. Naghimo mi ug lugar nga maoy gidesignate alang sa composting” (P6)*

*“We do composting. Ang mga fish entrails binabaon sa lupa so it will not get so smelly” (P8)*

*“Naa man mi manukan, ginasagol sa pagkaon sa manok sama sa mga pan-os na kan-on” (P9)*

*“Ang food waste ginapakaon sa iro” (P10)*

Despite these efforts, participants faced challenges, such as irregular garbage collection schedules and insufficient resources, as noted by Participant 6. These systemic issues mirror findings from Wilson et al. (2012), which identified infrastructure inefficiencies as barriers to effective waste management.

*“The collection of garbage is only once a week so there’s too much garbage so it also an eye sore” (P1)*

*“Late retrieval of waste by garbage collector, volume of waste fluctuates that sometimes the trash bin overflow” (P3)*

*“...kay ang walay saktong schedule sa pagkolekta sa mga dili malata na mga basura. Magtapon-og ang mga basura kai maghulat pa kung kanus a kolektahon sa truck” (P5)*

*“Usa sa hagit mao ang dili pag-abot sa CENRO o Barangay Garbage Collector sa gitakdang oras o adlaw nga iskedyul sa pagkuha sa basura” (P6)*

Participant 11, member of the carbage collector of the CENRO confirmed that most of the places or subdivision in Davao City only has one schedule of garbage collection. An area would be lucky if the collection is done twice a month.

*“Once a week lang, depende man gud na sa area ma’am, nag-agad pud mi sa ibabaw, kay by schedule man na sya. Depende sa schedule na ihatag. Naay uban na tagduha, nay uban ka-isa ra. Siguruhon gyud ng mabahaw.” (P11)*

*Table 4. Practices of Mothers on Solid Waste Management*

|  |  |  |
| --- | --- | --- |
| Theme | Sub-theme | Supporting Statements |
| Practices in Solid Waste Management | 1. Waste Segregation in Households *(Methods of segregation, Compliance or non-compliance)* | *Yes, I trained even my grandchildren. They are already aware how to separate wastes (P1)*  *Several trash can and bins inside the household for different kind of trash, food waste always in a different bag (P3)*  *wala namo ni matuman pero akong gina siguro jud na mahipos ang among mga basura ug nakatapok sa tuyoanan nga labayanan (P4)*  *Oo naga segregate mi sa mga basura ang mga ma ipon na mga malata na basura ginagamit nakong organic fertilizer  (P5)*  *Oo. Sa among balay, naghimo mi ug mga basurahan nga adunay label alang sa mga kategoriya sa basura, ug ang akong pamilya mosunod niini (P6).*  *Sa amo ginapractice namo. Ang pwd pa ibaligya kay ako ibaligya sa bote bakal. Ang malata kay akong ibutang say uta para sa mga bulak (P9)*    *We don’t segregate kay naanad na nga ang ga collect na ug basura ang nag segregate (P10)* |
| 1. Food Waste Management (*Composting and use of food waste as feed)* | *our food waste are usually used for pig feed (P1)*  *Ang mga foodwaste na basurah ginagamit nakong organic fertilizer sa ako mga tanom (P5)*  *Nag-compost mi sa mga pagkaon, balat sa gulay, o biodegradable nga basura. Naghimo mi ug lugar nga maoy gidesignate alang sa composting (P6)*  *We do composting. Ang mga fish entrails binabaon sa lupa so it will not get so smelly (P8)*  *Naa man mi manukan, ginasagol sa pagkaon sa manok sama sa mga pan-os na kan-on (P9)*  *ng food waste ginapakaon sa iro (P10)* |
| 1. Challenges in Waste Management (*Irregular or insufficient garbage collection schedules )* | *the collection of garbage is only once a week so there’s too much garbage so it also an eye sore (P1)*  *Late retrieval of waste by garbage collector, volume of waste fluctuates that sometimes the trash bin overflow (P3)*  *… Kay ang walay saktong schedule sa pagkolekta sa mga dili malata na mga basura. Magtapon-og ang mga basura kai maghulat pa kung kanus a kolektahon sa truck (P5)*  *Usa sa hagit mao ang dili pag-abot sa CENRO o Barangay Garbage Collector sa gitakdang oras o adlaw nga iskedyul sa pagkuha sa basura (P6)* |

Reflections and insights of mothers on improving solid waste management focused on actionable recommendations as shown in Table 5. Participants, such as Participants 1 & 5, suggested increasing the frequency of garbage collection and providing community training on waste segregation as mentioned by participants 3 & 8.. This aligns with the World Bank (2018)[13], which supports capacity-building initiatives as a means to enhance waste management systems.

*“I think it’s not resources, but it would be better if CENRO would have more collection or day of collections in a week” (P1)*

*“Kailangan namug regular schedule sa pagkolekta sa mga basura specially sa mga dili malata dili name maglisud na magtapun-og ang mga basura gawas sa among panimalay” (P5)*

*“Need more literature or training for segregation, or do review / re-learning of doing segregation” (P3)*

*“Magkaroon ng mga seminar or training or get in touch with the people” (P8)*

Collaboration and cooperation were also emphasized, with Participant 8 pointing out the need for barangay officials to actively enforce waste policies. UNEP (2016) underscores the value of such partnerships, noting that collaboration between communities and local authorities fosters sustainable waste management practices[11]. Together, these insights and reflections highlight the critical role of education, infrastructure, and collective action in addressing the challenges of solid waste management.

*“Ang paghatag ug lecture gikan sa Barangay bahin sa pagdumala sa basura makatabang aron masabtan sa among komunidad kung unsaon paglabay sa basura nga husto imbes nga ibilin kini sa dalan” (P5)*

*“The Barangay officials maybe are not even aware of that… does it have to take yung mga nasa upper level pa ang magsasabi.. how about the barangay tanod?” (P8)*

*“Then iimpose jud sya. Siguro pud kung mao jud na ang iimpose, dili lang pilion lang ang lugar na magcomply, aron mabuhat jud sya” (P10)*

*Table 5. Reflections and Insights of Mothers on Solid Waste Management*

|  |  |  |
| --- | --- | --- |
| Theme | Sub-theme | Supporting Statements |
| Recommendations for Improvement | 1. Suggested Government and Community Interventions   *(Increased frequency of waste collection, community training and awareness programs and*  *stricter enforcement of penalties for non-compliance)* | *I think it’s not resources, but it would be better if CENRO would have more collection or day of collections in a week (P1)*  *Kailangan namug regular schedule sa pagkolekta sa mga basura specially sa mga dili malata dili name maglisud na magtapun-og ang mga basura gawas sa among panimalay (P5)*  *Need more literature or training for segregation, or do review / re-learning of doing segregation (P3)*  *Magkaroon ng mga seminar or training or get in touch with the people (P8)* |
| 1. Collaboration and Cooperation *(Involvement of local authorities and barangay officials and consistent participation from household and community members)* | *Ang paghatag ug lecture gikan sa Barangay bahin sa pagdumala sa basura makatabang aron masabtan sa among komunidad kung unsaon paglabay sa basura nga husto imbes nga ibilin kini sa dalan (P5)*  *The Barangay officials maybe are not even aware of that… does it have to take yung mga nasa upper level pa ang magsasabi.. how about the barangay tanod? (P8)*  *Then iimpose jud sya. Siguro pud kung mao jud na ang iimpose, dili lang pilion lang ang lugar na magcomply, aron mabuhat jud sya (P10)* |

**SUMMARY AND CONCLUSION**

Mothers in Davao City's insights into waste management are anchored in the right to live in a clean and healthy environment. Several themes have been extracted from their lived experiences. The first theme illustrates their knowledge of policies governing waste management and the community they lived in. The second theme is their attitudes toward solid waste management, including role modeling and educating their families in waste sorting activities. The practices of mothers on solid waste management as highlighted in the third theme validate the application of their knowledge in proper waste handling schemes. The last and fourth theme is the reflection and insights of mother in their role in managing waste acknowledging that they can learn more if they are provided with literature and pieces of training on waste segregation.

**RECOMMENDATIONS**

The lived experience of mothers cannot be underscored in the creation of improved policies governing waste management. There must be an intensified collaboration of communities and local authorities. The authorities should provide efficient infrastructure to augment improper waste disposal.

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