practice of the local barangay unit about the programs and policies being implemented. Based on the assessment level of the challenges facing the community showed that the respondents have a weak understanding of the concept and principle of Republic Act 9003 otherwise known as the Ecological Solid Waste Management Act of 2000 because of non-compliance in implementing waste segregation into biodegradable and non-bio gradable in the community. Based on the assessment level of the opportunities facing the community, the following were observed in the community being implemented: free printing service, free registration to join the sports fest, and promoting feedback system from the community and the existing partner organizations in the Community.

Keywords: Sustainability, Disposal, Environmental, Development

Abbreviations: BFP: Bureau of fire protection; Brgy: Barangay; DENR: Department of Environmental and Natural Resources; DOST: Department of Science and Technology; Fig: Figure; MRF: Material Recovery Facility; NGO: Non-Governmental Office; RA: Republic Act

INTRODUCTION

The study aims to assess the solid waste management practices in a selected community where the challenges in waste disposal and a lack of community discipline have led to environmental degradation as manifested in the interview with the chairperson of the said locality and to formulate recommendations for continuous improvement. The findings will provide a basis to enhance waste disposal systems, instill community discipline, and uplift residents' overall quality of life, contributing to a more responsible and sustainable waste management system. Senator Gatchalian, (2020) mentioned in his privileged speech last September 1. 2020 in the Philippine Senate 19th Congress, that the Philippines was the third major generator of solid waste annually, in Southeast Asia. As of 2020, the Filipino people have produced 0.414 kilograms of solid waste daily, an increase of 13.44% compared to 2014, because of deficient waste segregation, shortage of material recovery facilities, lack of sanitary landfills, and poor implementation of the Ecological Solid Waste Management Act of 2000. These facts were in parallel with the research of Coracero, (2021) that the rate of waste generation was alarmingly in the Philippines because of the increasing volume of solid waste, weak execution, inadequate sanitary landfills, and improper disposal. On a different note, Samoilov, (2021) suggested a robust sustainable methodology approach to waste management solutions. In the study of Ruiz, (2021) the authors mentioned that solid waste management should have discipline and control in all of the processes involved. Furthermore, LeBlanc (2020), interpreted solid waste management as a service to society. The study was conducted in a certain community in Silang Cavite. A one-on-one interview with the Barangay Chairman of the said locality was conducted to construct the instrument. Conferring to Lange, (2022) understanding demographics plays an important role in assessing whether people are more likely to reuse waste and make choices that benefit the protection of the environment. According to eSoft Skills, (2024), exploring different individual characteristics is linked to people's behavior regarding waste reduction and making environmentally responsible choices.

An empirical gap was identified in the study indicating a necessity for more extensive research on implementing effective measures for recycling and composting to encourage greater active participation among residents of the barangay, (Camarillo & Bellotindos, 2021). The theoretical framework of the study was anchored from Republic Act 9003 also known as the Ecological Solid Waste Management Act of 2000 enacted by the Congress of the Philippines last 2001. The act aims to promote proper waste segregation and management through guidelines for households and businesses. It establishes the National Ecology Center to aid in education, research, and training on solid waste issues.

Solid Waste

According to Manas, (2024) due to limited recycling capabilities for both high-value recyclables and low-value plastic in the country, only a small nine percent is recycled, despite 33% being collected. This situation has contributed to the Philippines' reputation as one of the leading contributors to global pollution. The unsustainable dumping or burning waste practices in open areas, often located near impoverished communities on the outskirts of cities, or disposing of garbage in bodies of water was commonly accepted as a method of waste disposal (Ferronato, 2019). In the same perspective, Abubakar, (2022) claimed that this kind of method creates numerous negative sustainability challenges, including resource depletion, environmental pollution, and public health issues such as the transmission of communicable diseases. This type of practice of waste disposal will have an effect in the long run for the community.

Types of Solid Waste

Jamal, (2020) explained the features of solid waste into origin and sources. Likewise, the types of solid waste are organic and inorganic. This study considered residential waste as the origin, and the sources are garbage, combustible, and non-combustible. Kumar, (2022) claimed that waste disposal is a perennial concern facing global communities even though resources and policies are available. Hence, the challenges facing waste disposal can be categorized into engineering, scientific, and organizational. The National Institute of Environmental Health Sciences, (2024), explained that hazardous waste is disposed of resources that are detrimental to human well-being and the environment. The institute further mentioned that it can be in the form of liquids, solids, contained gases, or sludges.

Waste Disposal Practices

According to Rodrigues, (2023) solid waste management encompasses the collection, proper disposal, and resource recovery of waste in a safe and environmentally responsible manner. Careful planning, organization, and implementation of programs are necessary to mitigate the adverse impacts of waste on human health and the environment (Rodrigues, 2024). Rendering to Perkumienė, (2023) successful programs for solid waste management require collaboration between various departments, including government agencies, private companies, NGOs,

segregating their waste into biodegradable and non-biogradable posed a serious problem in their practice.

In addition to the challenges found in the study were about strategies and programs of the local barangay unit related to its sustainability program including the material recovery facility, the enforcement and regulations as to the frequency of garbage collection schedule and impenetrable narrow streets forcing the community to dispose on unauthorized area. These challenges might be an outcome of why the community has difficulty complying with the basic regulations and policies of the local barangay unit.

According to the Barangay Chairman, another major challenge facing the community for effective solid waste management practices was the discipline of the community because some households were dumping their garbage in unauthorized areas while others mirror-imaged the practice until the garbage was stacked consistently.

Conferring to Zebua, (2023) community engagement must be present in addressing environmental challenges mostly for long-term sustainability while educational programs have been used to enhance participation within the community in waste management, it has not been very successful in changing the behavior of individual community members in a way that would lead to sustainable engagement with waste management practices. Lambe, (2019) claimed that the success of a community project relies on certain factors that can vary among individuals, such as how they perceive the project, their willingness to participate, their level of understanding of the project's goals, and their sense of ownership or responsibility towards the project, these variables can influence how actively community members engage with and contribute to the project, ultimately affecting its outcomes and overall success.

Assessment Level of Opportunities

It is believed, that opportunities can be a driver to overcome the challenges facing the community. The overall mean score of 3.58 and standard deviation of 0.098 means that they strongly agree with the different attributes found in this assessment level such as:

Free Printing Service: This is intended for public students in the community, to avail of this free printing service, students should exchange three empty plastic bottles,

Free Registration to Join the Sportsfest Activity: The youth are encouraged to join the basketball league during the summer. The teams should collect and endorse empty plastic bottles as their registration fee and provide three empty bottles for every game. Similarly, other opportunities were noted in the study such as the importance of participating in community clean-up drives and waste segregation activities which the community strongly agreed were both environmentally safe and acceptable to the community. Herewith are the other programs that will suffice these aforementioned opportunities.

Promoting a feedback system from the community

They have quarterly scheduled town hall meetings where they share information about the ongoing programs of the local barangay and encourage them to give feedback and suggestions in the meeting.

Promoting awareness through Seminar

The local barangay unit has a twice-a-year seminar about sustainable waste to increase the awareness of the community regarding solid waste management disposal.

Barangay Feeding Program

According to Barangay Chairman Generoso, whenever they have a scheduled feeding program, they encourage the community to bring their disposal utensils such as paper cups, plates, spoons, and forks to lessen the waste.

Partner with Organizations in the Community regarding Solid Waste Management.

According to Barangay Chairman Generoso, they have active partners in the community supporting their solid waste management, such as the Tau Gamma Phi Fraternity, Guardians, Bureau of Fire Protection, and Sangguniang Kabataan.

According to Mariano, (2020) involving the community in solid waste management shows the importance of fostering a sense of ownership among its members. This ownership from the community contributes to the sustainability programs and expands the barangay's outreach, as community members become advocates or volunteers for proper solid waste management practices themselves **(Tables 6 & 7).**

Table 6. Significant differences between the common issues of the community in their solid waste management and the ages of the respondents.

Common Issues in the Community	Age	M	F	Sig
Awareness	18-22	3.79	1.113	0.345
	23- 27	3.70		
	28-32	3.75		
	33 above	3.72		
Actual Practice	18-22	3.88	3.83	0.011*
	23- 27	3.76		
	28-32	3.62		
	33 above	3.70		
Challenges	18-22	3.76	3.65	0.013*
	23- 27	3.73		
	28-32	3.68		
	33 above	3.62		
Opportunities	18-22	3.64	0.639	0.591
	23-27	3.59		
	28-32	3.55		
	33 above	3.57		

Significance at 0.05 level

Table 7. Post Hoc Analysis: Differences between Ages and Common Issues in the Community.

Differences between Ages and Actual Practice		
Groups Compared	Mean Difference	Sig
1 and 3	0.25615*	.007*
1 and 4	-0.18224*	.041*
Differences between Ages and Challenges		
Groups Compared	Mean Difference	Sig
1 and 4	0.14051*	.028*

Significance at 0.05 level

Differences Between Actual Practice and Ages of Respondents

There was a significant difference found between the actual practice of the local barangay unit and ages of the respondents. The F value of 3.83 with a probability value of 0.011 was significant at alpha of 0.05. This means that there was enough sample evidence that the ages of respondents differ from one another in terms of the actual practice of the local barangay when they are grouped based on age. The post hoc analysis revealed that the significant differences were between Group 1 (18 years old to 22 years old), group 3 (28 to 27 years old), and Group 1 and Group 4 (above 33 years old), and the groupings were in favor of those in group 1 (18 years to 22 years old) respectively. This means that there was enough evidence to prove that those from 18 to 22 years old were the ones who strongly agreed that programs and policies of the local barangay unit about solid waste management were being practiced by the community as compared with those ages ranging from 23 to 27 years old and 33 years old above.

Group 1 aged between 18 years to 22 years are considered Generation Z, born between 1997 to 2012 and might be considered as college students. According to the study of Debra, (2021) there were strong indication that secondary and tertiary level students have constructive environmental attitudes and high consciousness of environmental issues but should be directed by their educators on the practical education side and solid waste practices.

Differences between Challenges and Ages of the Respondents

There was a significant difference found between the challenges facing the community and the ages of the respondents. The F value of 3.65 with a probability value of 0.013 was significant at alpha of 0.05. This means that there was enough sample evidence that the ages of respondents differ from one another in terms of the challenges observed by the community about solid waste management when they are grouped based on age. The post-hoc analysis revealed that the significant differences were between Group 1 (18 years old to 22 years old), and Group 4 (above

33 years old), in favor of Group 1. This means that there was enough evidence to prove that those from 18 to 22 years old were the ones who were strongly aware of the challenges of solid waste management as compared with those ages ranging from 23 to 27 years old and 33 years old above.

The Department of Environmental and Natural Resources, (2021) through a press release of the Philippine Information Agency about the message of Honorable Benny D. Antiporda, Undersecretary for Solid Waste Management and Local Government Units (LGUs) mentioned that the youth should be engaged in solid waste management activities because they will be the future champions of this endeavor and advocacy **(Tables 8 & 9).**

Table 8. Significant differences between the common issues of the community in their solid waste management and the educational attainment of the respondents.

Common Issues	Educational Attainment	M	F	Sig
Awareness	Elementary	3.68	4.324	.014*
	High school	3.73		
	College Level	3.83		
Actual Practice	Elementary	3.72	3.464	.033*
	High school	3.68		
	College Level	3.89		
Challenges	Elementary	3.61	10.940	.000*
	High school	3.65		
	College Level	3.89		
Opportunities	Elementary	3.55	3.793	.024*
	High school	3.57		
	College Level	3.74		

Table 9. Post Hoc Analysis: Differences between Educational Attainment and Common Issues in the Community.

Differences between Educational Attainment and Awareness		
Groups Compared	Mean Difference	Sig
Group 1 and 3	-.15481*	.012
Differences between Educational Attainment and Actual Practice		
Groups Compared	Mean Difference	Sig
Group 2 and 3	-0.20356*	.026
Differences between Educational Attainment and Challenges		
Groups Compared	Mean Difference	Sig
Group 1 and 3	-0.27528*	.000
Group 2 and 3	-0.24192*	.000
Diff Differences between Educational Attainment and Opportunities		
Groups Compared	Mean Difference	Sig
Group 1 and 3	0.18896*	.027
Group 2 and 3	-0.17390*	.024

Significance at 0.05 level

Differences between Educational Attainment and Awareness

There was a significant difference found between the awareness of the community in the policies and programs of the local barangay unit and the educational attainment of the respondents. The F value of 4.324 with a probability value of 0.014 was significant at an alpha of 0.05. This means that there was enough sample indicator that the educational attainment of respondents contrasts with one another in terms of awareness observed by the community about solid waste management when they are grouped based on educational attainment. The post-hoc analysis revealed that the significant difference was between Group 1 (elementary level), and Group 3 (college level), in favor of Group 3. This means that there was enough basis to prove that those from the college level were the ones who were strongly aware of the policies and programs of the local barangay unit related to solid waste management as compared with those other educational levels.

In the study conducted by Bautista, (2019) she claimed that college students were fully conscious of the policies and regulations about solid waste management particularly in recycling, reusing, and proper disposal but were not fully cognizant of their roles as students in the implementation of solid waste management.

Differences between Educational Attainment and Actual Practice

There was a significant difference found between the actual practice of the local barangay unit and the educational attainment of the respondents. The F value of 3.464 with a probability value of 0.033 was significant at alpha of 0.05. This means that there was enough sample indication that the educational attainment of respondents contrasts with one another in terms of actual practice observed by the community about solid waste management when they are grouped based on educational attainment. The post-hoc analysis revealed that the significant difference was between Group 2 (high school level), and Group 3 (college level), in favor of Group 3. This means that there was enough basis to prove that those from the college level were the ones who strongly agreed about solid waste management of the local barangay unit as compared with those other levels.

The findings of Diestro, (2022) wherein college students in the Philippines were aware of the protocols in solid waste management but moderately practiced the implementation.

Differences between Educational Attainment and Challenges

There was a significant difference found between the challenges of the community and the educational attainment of the respondents. The F value of 10.940 with a probability value of 0.000 was significant at alpha of 0.05. This means that there were enough sample indicators that the educational attainment of respondents contrasts with one another in terms of challenges observed by the community about solid waste management when they are grouped based on educational attainment. The post hoc analysis revealed that the significant differences were between Group 1 (elementary level) and Group 3 (college level), as well as between Group 2 (high school level), and both were in favor of Group 3 respectively. This means that there was enough basis to prove that those from the college level were the ones who were strongly aware of solid waste management as compared with those other levels.

Differences between Educational Attainment and Opportunities

There was a significant difference found between the opportunities of the community and the educational attainment of the respondents. The F value of 3.793 with a probability value of 0.0240 was significant at alpha of 0.05. This means that there was enough sample indicator that the educational attainment of respondents contrasts with one another in terms of opportunities observed by the community about solid waste management when they are grouped based on educational attainment. The post hoc analysis revealed that the significant differences were between Group 1 (elementary) and Group 3 (college level), as well as between Group 2 (high school) and Group 3, both were in favor of Group 3 respectively. This means that there was enough basis to prove that those from the college level were the ones who strongly agreed about the opportunities related to solid waste management as compared with those other levels **(Tables 10 & 11).**

Table 10. Significant differences between the common issues of the community in their solid waste management and household members of the respondent.

Common Issues	Household members	M	F	Sig
Awareness	2-3 members	3.7598	1.105	0.333
	4-5 members	3.7481		
	6 or more members	3.7122		
Actual Practice	2-3 members	3.7031	1.363	0.258
	4-5 members	3.7491		
	6 or more members	3.6744		
Challenges	2-3 members	3.7417	6.804	0.001*
	4-5 members	3.6962		
	6 or more members	3.5992		
Opportunities	2-3 members	3.5974	5.058	0.007*
	4-5 members	3.6337		
	6 or more members	3.5144		

Significance at 0.05 level

Table 11. Post Hoc Analysis: Differences between Household Members and Common Issues in the Community.

Differences between Household Members and Challenges		
Groups Compared	Mean Difference	Sig
Group 2 and 4	.14244*	.006
3 and 4	.09700*	.009
Differences between Household members and Opportunities		
Groups Compared	Mean Difference	Sig
Group 3 and 4 (Favor 3)	.11935*	.005

Differences between Household Members and Challenges

There was a significant difference found between the challenges of the community and household members of the respondents. The F value of 6.804 with a probability value of 0.001 was significant at alpha of 0.05.

This means that there was enough sample indicator that household members of respondents contrast with one another in terms of challenges observed by the community about solid waste management when they are grouped based on several household members. The post hoc analysis revealed that the significant differences were between Group 2 (2-3 members) and Group 4 (more than 6 members), in favor of Group 2, as well as between Group 3 (4 to 5 members) and Group 4 (more than 6 members) in favor of Group 3. This means that there was enough basis to prove that those from Group 2 (2 to 3 members) and Group 3 (4 to 5 members) were strongly aware of the challenges related to solid waste management as compared with those other levels.

Differences between Household members and Opportunities

There was a significant difference found between the opportunities of the community and household members of the respondents. The F value of 5.058 with a probability value of 0.007 was significant at alpha of 0.05. This means that there was enough sample indicator that household members of respondents contrast with one another in terms of opportunities observed by the community about solid waste management when they are grouped based on the number of household members. The post-hoc analysis revealed that the significant differences were between Group 3 (4 to 5 members) and Group 4 (more than 6 members), in favor of Group 3. This means that there was enough basis to prove that those from Group 3 (4 to 5 members) strongly agreed about the opportunities related to solid waste management as compared with those other household family members.

FINDINGS

The demographic profile of the respondents showed that 59.5% were above 33 years old and were mature individuals. The majority were high school level representing 71% and came from medium-sized households consisting of four to five members (45%).

Based on the one-on-one interview with the Barangay Chairman of Adlas, Silang Cavite. The following common issues facing the community regarding their solid waste management were developed: Awareness of the community regarding solid waste disposal, actual practices of the local barangay unit, and the challenges and opportunities facing the community.

Based on the assessment level between awareness of the community and actual practices of the local barangay unit regarding policies about solid waste management. The community was strongly aware of the impact of improper solid waste management (mean of 3.73) and strongly agreed with the actual practice of the local barangay unit about the programs and policies (mean score of 3.71) being implemented. While the result showed favorable interpretations, it seemed contradicting from the interview with the Barangay Chairman mentioning the inconsistency of the community in their compliance.

Based on the assessment level on the challenges facing the community, the composite mean score of 3.66 with a standard deviation of

0.221 showed that the respondents were strongly aware of the challenges facing the community but just an icing on the cake because there were other attributes found in this assessment level such as their understanding in the concept and principle of Republic Act 9003 or otherwise known as Ecological Solid Waste Management Act of 2000.

It seemed that the community was very unfamiliar with this Act, even segregating their waste into biodegradable and non-biogradable posed a serious problem in their practice. In addition to the challenges found in the study were about strategies and programs of the local barangay unit related to its sustainability program including the material recovery facility, the enforcement and regulations as to the frequency of garbage collection schedule and impenetrable narrow streets forcing the community to dispose on unauthorized area. These challenges might be an outcome on why the community has difficulty complying with the basic regulations and policies of the local barangay unit.

Based on the assessment level on the opportunities facing the community, the overall mean score of 3.58 and standard deviation of 0.098 means that they strongly agree to the different attributes found in this assessment level such as:

- Free Printing Service: This was intended for public students in the community, to avail of this free printing service, students should exchange three empty plastic bottles
- Free Registration to Join the Sportsfest Activity: The youth were encouraged to join the basketball league during the summer. The teams should collect and endorse empty
- Promoting feedback system from the community: They have quarterly scheduled townhall meetings where they share information about the ongoing programs of the local barangay and encourage them to give feedback and suggestions in the meeting
- Promoting awareness through Seminar: The local barangay unit has a twice-a-year seminar about sustainable waste to increase the awareness of the community regarding solid waste management disposal.
- Partner Organizations in the Community regarding Solid Waste Management: They have active partners in the community supporting their solid waste management, such as the Tau Gamma Phi Fraternity, Guardians, Bureau of Fire Protection, and Sangguniang Kabataan.

Significant differences between Actual Practice and Ages of Respondents

There was a significant difference found between the actual practice of the local barangay unit and the ages of the respondents. The F value of 3.83 with a probability value of 0.011 was significant at alpha of 0.05. This means that there was enough sample evidence that the ages of respondents differ from one another in terms of the actual practice of the local barangay when they are grouped based on age. The post hoc analysis revealed that the significant differences were between Group 1 (18 years old to 22 years old), Group 3 (28 to 27 years old), and Group 1 and Group

4 (above 33 years old), and the groupings were in favor of those in group 1 (18 years to 22 years old) respectively. This means that there was enough evidence to prove that those from 18 to 22 years old were the ones who strongly agreed that programs and policies of the local barangay unit about solid waste management were being practiced by the community as compared with those ages ranging from 23 to 27 years old and 33 years old above.

Significant Differences between Challenges and Ages of the Respondents

here was a significant difference found between the challenges facing the community and the ages of the respondents. The F value of 3.65 with a probability value of 0.013 was significant at alpha of 0.05. This means that there was enough sample evidence that the ages of respondents differ from one another in terms of the challenges observed by the community about solid waste management when they are grouped based on age. The post-hoc analysis revealed that the significant differences were between Group 1 (18 years old to 22 years old), and Group 4 (above 33 years old), in favor of Group 1. This means that there was enough evidence to prove that those from 18 to 22 years old were the ones who were strongly aware of the challenges of solid waste management as compared with those ages ranging from 23 to 27 years old and 33 years old and above.

Significant Differences between Educational Attainment and Awareness

There was a significant difference found between the awareness of the community in the policies and programs of the local barangay unit and the educational attainment of the respondents. The F value of 4.324 with a probability value of 0.014 was significant at alpha of 0.05. This means that there was enough sample indicator that the educational attainment of respondents contrasts with one another in terms of awareness observed by the community about solid waste management when they are grouped based on educational attainment. The post-hoc analysis revealed that the significant difference was between Group 1 (elementary level), and Group 3 (college level), in favor of Group 3. This means that there was enough basis to prove that those from the college level were the ones who were strongly aware of the policies and programs of the local barangay unit related to solid waste management as compared with those other educational levels.

Significant Differences between Educational Attainment and Actual Practice

There was a significant difference found between the actual practice of the local barangay unit and the educational attainment of the respondents. The F value of 3.464 with a probability value of 0.033 was significant at an alpha of 0.05. This means that there was enough sample indication that the educational attainment of respondents contrasts with one another in terms of actual practice observed by the community about solid waste management when they are grouped based on educational

attainment. The post-hoc analysis revealed that the significant difference was between Group 2 (high school level), and Group 3 (college level), in favor of Group 3. This means that there was enough basis to prove that those from the college level were the ones who strongly agreed about solid waste management of the local barangay unit as compared with those other levels.

Significant Differences between Educational Attainment and Challenges

There was a significant difference found between the challenges of the community and the educational attainment of the respondents. The F value of 10.940 with a probability value of 0.000 was significant at alpha of 0.05. This means that there were enough sample indicators that the educational attainment of respondents contrasts with one another in terms of challenges observed by the community about solid waste management when they are grouped based on educational attainment. The post hoc analysis revealed that the significant differences were between Group 1 (elementary level) and Group 3 (college level), as well as between Group 2 (high school level), and Group 3 level, both are in favor of Group 3 respectively. This means that there was enough basis to prove that those from the college level were the ones who were strongly aware of solid waste management as compared with those other levels.

Significant Differences between Educational Attainment and Opportunities

There was a significant difference found between the opportunities of the community and the educational attainment of the respondents. The F value of 3.793 with a probability value of 0.0240 was significant at alpha of 0.05. This means that there was enough sample indicator that the educational attainment of respondents contrasts with one another in terms of opportunities observed by the community about solid waste management when they are grouped based on educational attainment. The post-hoc analysis revealed that the significant differences were between Group 1 (elementary) and Group 3 (college level), as well as between Group 2 (high school) and Group 3, both were in favor of Group 3 respectively. This means that there was enough basis to prove that those from the college level were the ones who strongly agreed about the opportunities related to solid waste management as compared with those other levels.

Significant Differences between Household Members and Challenges

There was a significant difference found between the challenges of the community and household members of the respondents. The F value of 6.804 with a probability value of 0.001 was significant at alpha of 0.05. This means that there was enough sample indicator that household members of respondents contrast with one another in terms of challenges observed by the community regarding solid waste management when they are grouped based on several household members. The post-hoc analysis revealed that the significant differences were between Group 2 (2-3 members) and Group 4 (more than 6 members), in favor of Group 2, as

well as between Group 3 (4 to 5 members), in favor of Group 3. This means that there was enough basis to prove that those from Group 2 (2 to 3 members) and Group 3 (4 to 5 members) were strongly aware of the challenges related to solid waste management as compared with those other levels.

Significant Differences between Household Members and Opportunities

There were significant differences found between the opportunities of the community and household members of the respondents. The F value of 5.058 with a probability value of 0.007 was significant at an alpha of 0.05. This means that there was enough sample indicator that household members of respondents contrast with one another in terms of opportunities observed by the community about solid waste management when they are grouped based on the number of household members. The post-hoc analysis revealed that the significant differences were between Group 3 (4 to 5 members) and Group 4 (more than 6 members), in favor of Group 3. This means that there was enough basis to prove that those from Group 3 (4 to 5 members) strongly agreed about the opportunities related to solid waste management as compared with those other household family members.

CONCLUSION

The assessment level of the community between awareness and actual practice showed that the community was strongly aware of the impact of improper solid waste management and strongly agreed with the actual practice of the local barangay unit about the programs and policies being implemented. Based on the assessment level of the challenges facing the community the respondents have a weak understanding of the concept and principle of Republic Act 9003 otherwise known as the Ecological Solid Waste Management Act of 2000 because of non-compliance in implementing waste segregation in the community. Based on the assessment level of the opportunities facing the community, the following were observed in the community being implemented: free printing service, free registration to join the sports fest, and promoting feedback system from the community and the existing partner organizations in the Community.

AUTHOR CONTRIBUTIONS

L.P. Masanga, the lead author conceptualized the study, orchestrated the allocation of the different tasks to the co-authors, and ultimately wrote the manuscript. E.B. Gutierrez has contributed to conducting the inferential statistics, data interpretation, and analysis of the variables. M.V. Cajayon contributed by providing literature reviews on the demographics of the respondents. R.C. De Vera participated in the data gathering and reproduction of the instrument.

ACKNOWLEDGEMENT AND FUNDING INFORMATION

The research study was conducted in the community of Silang Cavite, Barangay Adlas Riverside Two. Acknowledgment to the community members who participated in the actual survey. Likewise, to

the Barangay Chairman for allowing us to have the one-on-one interview with him. To the Barangay leaders and Staff of Barangay Adlas, Riverside One, Silang Cavite for their support and assistance during the actual survey of the community. There was no funding or grant given to the conduct of the research.

CONFLICT OF INTEREST

The author declares that there is no conflict of interest regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancy have been completely observed by the authors.

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