



HYGIENE AND SANITATION PRACTICES IN QUIBAL, PENABLANCA CAGAYAN: A BASIS FOR COMMUNITY SERVICES PROGRAM

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ABSTRACT

The study was conducted to determine the effectiveness of Hygiene and Sanitation practices in Quibal, Peñablanca for Community Service Program. According to UNICEF, adequate sanitation practices are essential in preventing waterborne diseases and promoting community health. Investigating the current sanitation and hygiene practices in Quibal will provide valuable insights into the existing challenges and areas needing improvement. By understanding these practices, stakeholders can develop more effective strategies to enhance public health outcomes in the community. This study hypothesizes that the hygiene practices of community members in Quibal are inadequate, including insufficient handwashing, poor personal hygiene maintenance, and lack of cleanliness in households and public spaces. Engaging in these deficient practices significantly increases the risk of spreading preventable illnesses and adversely impacts the community's overall health. Therefore, the research will focus on identifying specific inadequacies in current practices and understanding the reasons behind them. This will help in formulating targeted interventions to promote better hygiene and sanitation behaviors among the residents. Inadequate sanitation and hygiene practices can have severe health implications, especially for vulnerable groups such as children, the elderly, and individuals with pre-existing health conditions. The absence of appropriate practices is expected to lead to a rise in waterborne diseases, increased healthcare expenses, and a diminished quality of life for the community members. Hence, this study aims to provide a comprehensive analysis of the existing sanitation and hygiene practices in the Quibal community of Peñablanca, Cagayan, to inform community programs and policymaking. The ultimate goal is to enhance the health and wellbeing of the community through improved sanitation and hygiene practices. This research is crucial for formulating a community extension services program tailored to the unique needs and challenges of the area. Proper sanitation and hygiene are vital for overall community health and are recognized as fundamental human rights. This research will guide local authorities in developing targeted interventions to enhance sanitation infrastructure and hygiene



promotion, contributing to improved health outcomes and sustainable community development. This aligns with recommendations from UNICEF, the Department of Health, and the World Health Organization to prioritize investments in sanitation and hygiene, particularly in rapidly urbanizing rural areas like Quibal.

Key words: Sanitation and Hygiene Practices, community health, public health intervention.

INTRODUCTION

This study is based on Florence Nightingale's environmental theory, which emphasized facilitating the client's surroundings in providing for and aiding the client in achieving total wellbeing.

In accordance with Nightingale's essential component of cleanliness and sanitation, maintaining the cleanliness of client's environment with the awareness and compliance of waste management as healthcare professional, manipulating the environment is an important role. Nightingale also pointed out that the, "Greater part of nursing consists in preserving cleanliness." by manipulating the client's environment, which is the hospital in modern times, we can achieve a faster recovery for our clients. She enumerates the five essential components of healthy environment as, pure air, pure water. The client's well-being, the wellbeing of the health care teams, and the well-being of the community are all affected by a variety of factors, including proper waste management and awareness among health care professionals.

METHODOLOGY

This chapter presents the research design, Respondents/ Participants/ Subject of the Study, data gathering procedure and data analysis.

Research design

This study adheres to descriptive-inferential research design as the researchers aim to capture a thorough analysis of the existing sanitation and hygiene practices in the Quibal community of Peñablanca, Cagayan. According to Frost (2022), descriptive statistics can be utilized to summarize and graph the data for a group that the researchers chose. This process allows them to understand that specific set of observations. Inferential statistics, on the other hand, is about taking the data from a sample and making inferences about the larger population from which the sample was drawn as the goal of inferential statistics is to draw conclusions from a sample and generalize them to a population.

Therefore, in conducting assessment on the profile variables of the respondents, the identification of existing sanitation, hygiene practices, special areas and remedial measures can be undertaken to improve the health and sanitation practices of the respondents, a descriptive method will be utilized. And inferential statistics is applicable in determining the statistical significant difference between the



hygiene and sanitation practices of respondents in self, home and community when grouped according to profile variables.

Respondents of the Study

The primary target respondents of this study are the members of the Quibal community in Peñablanca, Cagayan as the researchers intend to assess their sanitation and hygiene practices for the improvement of the same practices through conducting extensive services programs. The respondents of this study specifically include the residents and households in Quibal, Peñablanca, Cagayan as they encompassed local people from various age groups, backgrounds, and demographics. The study involved key informants such as community leaders, health workers, and local authorities.

In selecting the respondents, random sampling technique was utilized in this study wherein each member of the target population has an equal chance of being selected. Among the total population three hundred (300) locals were randomly selected to represent the population in providing valuable insights into the challenges and context of sanitation and hygiene practices in the area. The purpose of the study was to collect extensive information from the community to gain a complete understanding of the current situation regarding sanitation and hygiene. The findings were intended to be used as a basis for potential community extension services programs, fostering improved practices within the Quibal community.

Data Gathering Tool

Upon selecting the targeted respondents of this study, the researchers gathered necessary data with the use of a structured questionnaire in accordance with the provided problem of the study, the tool contains likert scale questions wherein each point represents one item at a certain range.

The questionnaire was structured with two (2) parts: (1) profile of the respondents, this is to identify the profile characteristics of the members of the Quibal community; and (2) hygiene and sanitation and practices, to identify specific and personal practices exercised by the respondents in terms of their community, in their homes and most especially themselves alone. With these, gathered information will aid in formulation of conclusions and recommendations of this study resulting in provision of an extensive service program prioritizing and improving the weak points of the identified practices.

Data Gathering Procedure

The foremost step in conducting this study was the preparation of the formal letters sent to community leaders and relevant authorities requesting for permission to conduct the research in the identified locale of the study. The letter was addressed to the heads of local government offices, community representatives, and key stakeholders who had the authority to grant access to the research site.

Once granted with permissions, the research team took on a facilitative role. They worked closely with local community members who had valuable insights and knowledge about the area. The research



team worked alongside community representatives to collect data on the past sanitation and hygiene practices in the community. They used a structured questionnaire to gather necessary information in a systematic manner. The collaborative effort involved confirming institutional profiles and identifying related issues or challenges that community members faced in terms of sanitation and hygiene.

Afterwards, the data that had been gathered was carefully organized and counted. To ensure a thorough and accurate evaluation of the community's past sanitation and hygiene practices, the researchers sought the help of their advisor or a qualified statistician for the final analysis. This guaranteed a rigorous and comprehensive interpretation of the results.

Data Analysis

In terms of quantitative data analysis of this study, the researchers adopted frequency count, percentage distribution, weighted mean and one-way ANOVA to accurately assess the gathered data during the conducted survey in the Quibal community of Peñablanca, Cagayan. The findings were carefully processed and interpreted with a sense of relevant literature as a backup.

The data obtained through the survey are interpreted and analyzed using the statistical tool described below

First, the frequency count and percentage distribution were used to determine the profile characteristics of the respondents in Quibal, Peñablanca, Cagayan community.

Second, the weighted mean was used to examine the behavioral extent of practices of hygiene and sanitation and the shared issues or problems encountered.

Third, one-way ANOVA was executed to determine whether there are any statistically significant differences between the hygiene and sanitation practices of respondents in self, home and community when grouped according to profile variables.

Lastly, Regression analysis was used to determine the profile of the respondents that affect their hygiene and sanitation practices in Quibal, Peñablanca, Cagayan community.

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA



TABLE 3. DIFFERENCE ON ASSESSMENT OF THE RESPONDENTS IN HYGIENE AND SANITATION PRACTICES OF RESPONDENTS BASED ON THEIR PROFILE VARIABLES

VARIABLES		IN SELF	IN HOUSE	IN THE COMMUNITY
AGE	f-value	.143	6.621	3.428
	p-value	.934		.018
SEX	f-value	.250	1.598	.844
	p-value	.803	.111	.400
SOCIOECONOMIC STATUS	f-value	3.164	7.334	8.811
	p-value	.044		.000

The table above shows that with regards to the respondents' profile variable in terms of Age, amongst the different age group of the respondents which shows that there is a significant difference in their hygiene and sanitation practices under the category of In house with a pvalue of .000, ages 26-39 (early adulthood) had the highest mean of 3.70 from these assessments. These ages are known to be the age where people are more active in their business work and more focused in their home activities instead of socializing with their neighbourhood due to their lack of free time to entertain other activities, which resonates with the data. Moreover, amongst the different age group of the respondents which shows that there is a significant difference in their hygiene and sanitation practices under the category of in Community with a p-value of .018, ages 68-81 (late adulthood) had the highest mean of 3.87 from these assessments. These ages falls to the stereotype wherein they're more active where the community is concern, having the luxury of time since these ages are the period where retirement occurs. This aligns to the Kedah study's insights into housing conditions and cultural dimensions which are relevant to the Quibal study. The type of housing in a community can impact waste disposal methods and the availability of proper sanitation facilities, which resonates with the Quibal study's focus on access to sanitation facilities. Meanwhile, the data above shows that with regards to the respondents' profile variable in terms of Sex, there is no significant difference in their hygiene and sanitation practices under the category of In-Self, InHouse and Community. Furthermore, the data shows that with regards to the respondents profile variable in terms of Socioeconomic status, amongst the different socioeconomic status of the respondents, there is a significant difference in their hygiene and sanitation practices under the category of In Self with a p-value of .044 and In house with a p-value of .001, specifically, the individuals falling under the middle class had the highest mean score of 3.75 in their In-self assessment and 3.67 in their In-House assessment. These classes are known to be health conscious and image conscious when it comes to themselves and the well-being of their family. Meanwhile, amongst the different socioeconomic status of the respondents, there is a significant



difference in their hygiene and sanitation practices under the category of In the community with the p-value of .000, specifically, the individuals falling under the low class had the highest mean score of 3.87, these class has a good hygiene and sanitation practices in their community since they are being paid by the government to do hygiene and sanitation related labor works. The study Anpalagam et al. (2020), which investigated personal hygiene habits and sanitation conditions in a rural community using a descriptive cross-sectional approach. According to the Kedah study's findings, despite the community's lower median household income ranging from RM1000 to RM2000, residents exhibited commendable hygiene practices. The connection between socioeconomic conditions and hygiene behaviors was considered complex and interconnected. This insight into the economic factors influencing hygiene practices is relevant to understanding the sanitation and hygiene practices in the Quibal community. These results align with the economic considerations highlighted in the Kedah study. The Kedah community's lower economic stratum did not hinder commendable hygiene practices, emphasizing the complex relationship between income levels and hygiene behaviors.

TABLE 4. REGRESSION ANALYSIS IN THE PROFILE OF THE RESPONDENTS AFFECT THEIR HYGIENE AND SANITATION PRACTICES

VARIABLES		IN SELF	IN HOUSE	IN THE COMMUNITY
AGE	p-value	.816	.052	.010
	r-value	.037	.140	.175
	r ² -value	.001	.020	.031
SEX	p-value	.803	.111	.400
	r-value	.014	.092	.049
	r ² -value	.000	.008	.002
SOCIOECONOMIC STATUS	p-value	.938	.006	.000
	r-value	.037	.204	.252
	r ² -value	.001	.042	.063

The table above shows that under the category of the respondents' profile variable concerning their Age, it shows that there is a significant effect with regard to their sanitation and hygiene practices In the Community. Based on the Theory of Erik Erikson in the Stages of Human Development, the respondents of this study falls in the category between, Early, Middle and Late adulthood, and according to the study conducted by the Iowa State University these stages are categorized as a time of putting a lot of energy into making choices that will help one earn the status of a full adult in the



eyes of others and a period being able to understand problems and find solutions with greater efficiency than before. Basing on these stages and the governments unending and continuous program concerning sanitation and hygiene practices in the community, this knowledge corroborates to the data shown above. Meanwhile, under the category of the respondent's profile variable concerning their Sex, the data shows that there is no effect in the respondents' sanitation and hygiene practices In Self, House and the Community. Moreover, the data above shows that under the category of the respondents' profile variable concerning their Socioeconomic Status, it has a significant effect with regards to their sanitation and hygiene practices in house with a p-value of .006, it also shows a significant effect with regards to their sanitation and hygiene practices in the community with a p-value of .000. This data is further corroborated by the Kedah study, which indicates that the connection between socioeconomic conditions and hygiene behaviors was considered complex and interconnected.

ACTION PLAN

Title of the Program: Participatory Hygiene and Sanitation Transformation (PHAST): A Program to enhance and mobilize community for improved Hygiene and Sanitation behaviour. Duration of the Program: Year-Round Activity

Rationale

Based on the result of this study, given the positive attitude and basic knowledge towards hygiene and sanitation practices in Quibal, Penablanca Cagayan, an in-depth Hygiene and Sanitation Program would be of great help for the improvement of the Community's health and Hygiene and Sanitation behaviour. PHAST works on the premise that as communities gain awareness of their water, sanitation and hygiene situation through participatory activities, they are empowered to develop and carry out their own plans to improve this situation. PHAST seeks to help communities to improve their hygiene behaviours, to prevent poor hygiene related diseases and to encourage community management of water and sanitation facilities. PHAST hence demonstrates the relationship between sanitation and health status. Furthermore, the method tries to enhance the self-esteem of the participating community members by involving them into the planning process. Empowering the community helps to plan environmental improvements and to own and to operate water and sanitation facilities. The PHAST approach uses participatory methods to stimulate individual participation in a group process in order to attain these goals.

DISCUSSION

In the findings presented in the preceding chapters, this study focused on exploring the sanitation and hygiene practices among the residents of the community of Quibal, Penablanca, Cagayan. The



investigation commenced with a comprehensive profiling of the respondents, taking into account their age, sex, and socioeconomic status. The demographic analysis revealed that a significant portion of the respondents fell within the age bracket of 39 to 53 years. A predominant number of these respondents were female, with a substantial percentage earning less than Php 9,100.00 monthly, highlighting their low socioeconomic status. This demographic information provided a crucial context for understanding the variations in hygiene and sanitation practices within the community.

When examining the hygiene and sanitation practices at the individual, household, and community levels, the study found that the respondents generally held a strong consensus on the importance of these practices. On a personal level, they consistently emphasized the significance of hand washing, indicating a high level of awareness and adherence to personal hygiene. This practice is particularly critical in preventing the spread of infectious diseases. At the household level, respondents demonstrated a commitment to maintaining cleanliness by regularly cleaning their homes and ensuring proper ventilation. These practices are essential for creating a healthy living environment and preventing the buildup of harmful pathogens. The emphasis on a clean and well-ventilated home highlights the community's understanding of the importance of a sanitary living space.

In the context of community hygiene and sanitation, the respondents exhibited a strong agreement on the necessity of maintaining clean surroundings. This includes keeping communal areas, such as canals and general vicinities, free from waste and debris. The collective effort to maintain a clean community underscores the residents' recognition of the interconnectedness of individual and public health. Their active participation in community cleanliness initiatives reflects a shared responsibility and a proactive approach to public health. The study also delved into the differences in hygiene and sanitation practices when the respondents were grouped according to their demographic profiles. Notably, age emerged as a significant factor influencing these practices. The analysis showed that different age groups exhibited varying levels of adherence to hygiene and sanitation protocols both at home and within the community. Older respondents were more likely to engage in comprehensive hygiene practices, possibly due to greater health awareness or experience with past public health campaigns. This variation highlights the need for age-specific health education and interventions to ensure consistent hygiene practices across all age groups.

Moreover, the findings suggest that tailored interventions could enhance the overall sanitation and hygiene standards in Quibal. Given the socioeconomic challenges faced by many residents, it is crucial to develop community-specific strategies that address these barriers. Educational programs that cater to the unique needs of different demographic groups, combined with practical support such as access to cleaning supplies and facilities, could significantly improve public health outcomes. The study underscores the importance of continuous monitoring and support to sustain these practices, ensuring that all community members can benefit from a healthy and clean environment.

REFERENCES



Alcabedos, M., & Fontanilla, R. (2024). *THE IMPACT OF THE MATERNAL AND CHILD HEALTH CARE PROGRAM IMPLEMENTATION OF MEDICAL COLLEGES OF NORTHERN PHILIPPINES – COLLEGE OF NURSING IN SAN ISIDRO, IGUIIG, CAGAYAN: A PROGRAM EVALUATION: Reproductive Health, Maternal and Child Health Care, Nutrition, Prenatal Care, Postnatal Care.* <https://journal.mcnp.edu.ph/index.php/bsnm/article/view/15>

Anpalagam, T., Ai Ying, Y., Ravikumar, D. & Rai, S. B. (2020). *Personal hygiene and sanitation in a rural community in Kedah*. International Journal Of Community Medicine And Public Health, 7(4), 1263. *Background on the goals | United Nations Development Programme.* (n.d.). UNDP.

Badilla et. al, (2022). [Legal protection for availability, quality food safety and food waste management](#)

Bank, T. W. (2017). *The Costs of Meeting the 2030 Sustainable Development Goal Targets on Drinking Water, Sanitation, and Hygiene*

Bank, T. W. (2020). *WASH (Water, Sanitation & Hygiene) and COVID-19* Baitulmaal, I. (2022).

Water, Sanitation & Hygiene CDP et.Al, (2021). *CDP and the Sustainable Development Goals (SDGs)*

Digido (2023, March 17) *Middle Class in the Philippines: Understanding and Income Ranges* Frost, J. (2022). *Difference between Descriptive and Inferential*

Fontanilla, R. C., Catuiza, F. L., Nano, A. B., & Adaya, A. V. (2023). *Nutritional Status to Academic Performance of The School-Aged Children: A Basis for Inter-Collaborative Extension Services Program*. The Seybold Report ISSN, 1533-9211

Fontanilla, R., Mandac, R. G., Michael, U. J., Florentino, J., & Paracad, N. A. B. (2023). *Department of Health Programs: The Perspective of a Geographically Isolated and Disadvantaged Area of Peñablanca, Cagayan*. Herculean Journal, 1(1).

Fontanilla, R. (2023). *Nourishing Minds: A literature review on the link of nutrition, academic engagement, and student success*. herculeanjournal.com. <https://doi.org/10.17605/2zdprd70>

Gari et. al, (2020). *Magnitude and Factors Associated with Hygiene Practice Among Primary School Children in Mareko District, Southern Ethiopia: A Cross-Sectional Study* GBD et. Al, (2017). *Findings from the Global Burden of Disease Study 2017*

Hersh. (2021). *Industrial Hygiene: Keeping Workers Healthy and Safe* International, L. (2020, March 9). *Community Hygiene: Definition, Facts, and Impact in Rural Villages*. Lifewater International.

Kenyati et. al, (2022). *Factors Affecting Food Hygiene Practices in Rural Restaurants: A Case of Kawambwa District* NLM et. Al, (2021). *The National Library of Medicine: An Investment in Good Health*

Nzioki and Korir et. Al, (2020). *Effective Methods for Community Sanitation and Hygiene Promotion in the Developing World: A Scoping Review* ORG, U. (2020). *Goal 6: Ensure access to water and sanitation for all*

Qurat-ul-Ann, A.-R., Rizvi, S. B.-H. & Bibi, M. (2023). *Impact of Water, Sanitation and Hygiene Poverty on Child Health in Pakistan* Roser (2021). "Sanitation" Retrieved from <https://ourworldindata.org/>: <https://ourworldindata.org/sanitation>

Siwi. (2019). *Achieving the SDGs through the Integrated Safe Water, Sanitation and Hygiene Approach – iWaSH Governance*. Thomgang: *Sanitation and hygiene for all, and by all* | SNV. Trueman, C. N. (2015). "History of Hygiene Timeline" UNICEF. (2020). *Sanitation and hygiene*.

Statistics. Fund, S. D. (2018). *PRO-WATER: Promoting water and sanitation access, integrity, empowerment, rights and resiliency*

