

Protecting Plates: Protective and Prevention Strategies Against Chronic Hunger in Barangay Apas, Cebu City

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ABSTRACT

Chronic hunger and food insecurity remain persistent global concerns affecting health, economic stability, and social development. Despite advancements in food production systems, many households continue to experience limited access to sufficient, safe, and nutritious food due to challenges in accessibility, utilization, and stability of food resources. This study assessed the food protection and prevention strategies against chronic hunger in Barangay Apas, Cebu City, and examined the relationship between respondents' demographic profiles and these variables. A descriptive-correlational survey design was utilized involving 30 household respondents selected from Barangay Apas. Data were collected using a structured questionnaire and analyzed through descriptive statistics such as frequency, mean, and standard deviation. Findings revealed that food protection strategies were moderately effective, particularly in food assistance, school feeding, emergency food aid, and coordination with local government units and partner organizations. However, gaps were observed in the inclusion of senior citizens in assistance programs. Similarly, prevention strategies were also moderately effective, with strengths in livelihood programs, financial literacy initiatives, employment opportunities, and skills training, while weaknesses were noted in urban gardening initiatives and long-term food security planning. The study concludes that Barangay Apas demonstrates moderately effective but fragmented food protection and prevention strategies, where implementation is supported by community participation and government programs, yet requires stronger integration, inclusivity, and sustainability. It is recommended the barangay strengthen integration of programs, enhance senior citizen inclusion, expand urban gardening and backyard farming initiatives, intensify nutrition education, and establish stronger monitoring systems and inter-agency coordination to ensure sustainable food security interventions.

Keywords: Chronic Hunger, Food Security, Food Protection Strategies, Prevention Strategies

INTRODUCTION

Chronic hunger and food insecurity remain critical global issues that affect health, economic stability, and social development. Despite improvements in food production, many households still lack access to sufficient, safe, and nutritious food due to challenges in accessibility, utilization, and stability. Recent crises, including the COVID-19 pandemic, economic disruptions, and climate change, have intensified these vulnerabilities, making food insecurity a complex and multidimensional concern (DeL Castillo, 2023). At the local level, the study Protecting Plates addresses these concerns by examining food insecurity conditions in Barangay Apas, Cebu City and identifying appropriate interventions.

The persistence of chronic hunger is largely driven by socio-economic and structural factors such as unemployment, rising food prices, and inefficient food systems. Studies highlight that food insecurity often exists despite adequate food supply due to unequal distribution and food waste (Barrion et al., 2023; World Food

Programme, 2023). In the Philippines, the issue is further complicated by the “double burden of malnutrition,” where undernutrition and overnutrition coexist, emphasizing the need to ensure both food quantity and quality (Gaupholm et al., 2023). National data indicating that 31.4% of Filipino households experienced food insecurity underscores the urgency of targeted interventions (Semeniano et al., 2025).

Anchored on the United Nations Sustainable Development Goal 2 (Zero Hunger), this study highlights the link between food security, poverty reduction, and health outcomes. In urban communities like Barangay Apas, socio-economic constraints contribute to coping strategies that negatively affect nutrition and well-being. Thus, this research aims to assess food insecurity, analyze influencing factors, and propose a Sustainable Food Security Enhancement Plan to support community resilience and long-term development.

Statement of the Problem/Research Questions

This study aims to assess the current food protection and prevention strategies against chronic hunger in Barangay Apas, Cebu City. Specifically, it seeks to identify the key risk factors contributing to chronic hunger, evaluate the level of community preparedness and institutional response capacity, and examine the relationship between the respondents' demographic profile and these variables.

Specifically, the study aims to address the following questions:

1. What is the demographic profile among the respondents in Barangay Apas, Cebu City in terms of:
 - 1.1. Gender
 - 1.2. Age
 - 1.3. Educational Attainment
 - 1.4. Civil Status
 - 1.5. Occupation
 - 1.6. Household Size
 - 1.7. Protective and Prevention Strategies
2. What is the perceived level of protection strategies against chronic hunger among respondents in Barangay Apas, Cebu City?
3. What is the perceived level of prevention strategies against chronic hunger among respondents in Barangay Apas, Cebu City?
4. Is there a significant relationship between the respondents' level of protection and prevention strategies against chronic hunger in Barangay Apas, Cebu City?
5. Is there a significant difference in the perceived level of protection strategies against chronic hunger among respondents in Barangay Apas, Cebu City when grouped according to their demographic profile?
6. Is there a significant difference in the perceived level of prevention strategies against chronic hunger among respondents in Barangay Apas, Cebu City when grouped according to their demographic profile?
7. Based on the findings of the study, what Protective and Prevention Strategies Against Chronic Hunger Plan can be proposed?

Hypothesis

Ho1: There is no significant relationship between the respondents' level of protection and prevention strategies against chronic hunger in Barangay Apas, Cebu City.

Ho2: There is no significant in the perceived level of protection strategies against chronic hunger among respondents in Barangay Apas, Cebu City when grouped according to their demographic profile.

Ho3: There is no significant difference in the perceived level of prevention strategies against chronic hunger among respondents in Barangay Apas, Cebu City when grouped according to their demographic profile.

REVIEW OF RELATED LITERATURE

Understanding chronic hunger requires a critical examination of recent empirical and theoretical studies that explain its causes, impacts, and possible interventions. It provides substantial evidence that food insecurity is a multidimensional issue influenced by economic, social, and environmental factors. These studies serve as a foundation for identifying effective protective and preventive strategies against chronic hunger, particularly in urban communities where inequalities in food access are more pronounced.

Recent research consistently identifies socio-economic inequality as a primary driver of food insecurity. In the Philippine context, Semeniano et al. (2025) reported that approximately 31.4% of households experienced moderate to severe food insecurity, with higher prevalence among low-income families, larger households, and those with unstable employment. Similarly, the World Food Programme (2023) emphasized that economic disruptions, inflation, and rising food prices significantly reduce households' purchasing power, limiting access to adequate and nutritious food. These findings support earlier work by Laborde et al. (2021), which highlighted how global crises, including the COVID-19 pandemic, intensified hunger by disrupting food supply chains and livelihoods. Collectively, these studies indicate that chronic hunger is not merely a result of food scarcity but is deeply rooted in poverty, income instability, and unequal resource distribution.

In addition to economic factors, recent literature underscores the importance of food systems and nutritional quality in addressing hunger. Gaupholm et al. (2023) described the "double burden of malnutrition" in the Philippines, where undernutrition coexists with overnutrition due to poor dietary diversity and limited access to healthy food options. This highlights that food security must go beyond quantity and address nutritional adequacy. Furthermore, studies on food environments reveal that affordability and accessibility are critical determinants of dietary behavior, particularly in urban areas (Center for Integrative and Development Studies, 2025). Barrion et al. (2023) also pointed out that inefficiencies in food systems, such as food loss and waste, contribute to limited food availability despite sufficient production. These findings suggest that preventive strategies should include improving food distribution systems, promoting sustainable consumption, and enhancing nutrition education at the community level.

Behavioral and health-related studies further emphasize the impact of coping mechanisms on food security. Pengpid et al. (2025) found that individuals experiencing food insecurity often adopt survival strategies such as skipping meals or reducing portion sizes, which can lead to adverse physical and mental health outcomes. These practices are particularly common among vulnerable populations who lack access to social protection programs. Moreover, policy-oriented studies highlight the importance of government interventions, such as food assistance programs, livelihood support, and community-based initiatives, in mitigating hunger (World Bank, 2022). However, gaps in implementation and targeting often limit the effectiveness of these programs. This underscores the need for localized, evidence-based strategies that address both immediate food needs and long-term socio-economic determinants.

Overall, the chronic hunger is a complex and persistent issue shaped by interconnected economic, nutritional, behavioral, and policy factors. While existing studies provide valuable insights into the causes and impacts of food insecurity, there remains a need for localized research that examines community-specific conditions and identifies practical interventions. Limited studies focus on urban barangay-level strategies in Cebu City,

highlighting a research gap that this study aims to address. By integrating findings from recent literature, the present research seeks to develop protective and preventive strategies that are context-specific, sustainable, and responsive to the needs of Barangay Apas.

RESEARCH METHODOLOGY

This chapter presents the method used in this study, including the research design, research environment, respondents, research instrument, sampling technique, ethical considerations, data gathering procedures, and statistical treatment of data.

Research Design

This study employed a Descriptive–Correlational Survey Design to assess the protective and prevention strategies against chronic hunger in Barangay Apas, Cebu City. The descriptive design was used to identify and describe the demographic profile of the respondents and their level of awareness, practices, and experiences related to chronic hunger and food security. Meanwhile, the correlational design examined the relationship between demographic characteristics and the effectiveness of protective and prevention strategies against chronic hunger. This design was appropriate as it allowed the researcher to systematically describe existing conditions and determine relationships among variables without manipulating any factors.

Research Environment

The study was conducted in Barangay Apas, Cebu City, an urbanized community characterized by diverse socio-economic conditions, population density, and varying levels of access to food resources. The barangay was selected as the research locale due to its relevance in examining real-life issues related to food insecurity and chronic hunger in an urban setting.

Research Participants

The respondents of the study consisted of thirty (30) household residents of Barangay Apas, Cebu City. Participants were selected based on specific inclusion criteria to ensure the reliability and relevance of the data gathered. Respondents were required to be bona fide residents of the barangay, at least eighteen (18) years old and above, and actively involved in household food preparation or decision-making. Participation was voluntary, and all respondents provided informed consent prior to their inclusion in the study.

Research Sampling

This study used purposive sampling, a non-probability sampling technique where respondents were selected based on predetermined criteria. This method was appropriate as it ensured that only individuals with direct knowledge and experience related to household food consumption and food security were included in the study.

Research Instrument

The primary data-gathering instrument used in the study was a structured, researcher-made questionnaire. The instrument was divided into three parts. Part I gathered the demographic profile of the respondents, including age, gender, civil status, educational attainment, occupation, and household size. Part II assessed the level of awareness and experiences related to chronic hunger and food insecurity. Part III evaluated the protective and prevention strategies practiced by households to address chronic hunger. A 4-point Likert scale was used to quantify responses, interpreted as follows: 4 – Strongly Agree, 3 – Agree, 2 – Disagree, and 1 – Strongly Disagree. This scale was utilized to encourage respondents to provide clear and decisive answers without a neutral option.

Data Gathering Procedures

The study followed a systematic process in gathering data. Initially, permission was secured from the barangay officials of Barangay Apas, Cebu City. The researcher-made questionnaire was then subjected to expert validation to ensure clarity, relevance, and appropriateness. A pilot test was conducted to determine the reliability of the instrument.

After validation, the questionnaires were distributed to the selected respondents who met the inclusion criteria. Respondents were given sufficient time to answer the questionnaire, after which all completed forms were retrieved. The collected data were then organized, encoded, and prepared for statistical analysis.

Validity and Reliability

The research instrument was validated by experts in social science and community studies to ensure content validity. A pilot test was conducted to determine the reliability of the instrument using Cronbach's Alpha, with a minimum acceptable value of 0.70 indicating acceptable internal consistency.

Data Analysis

The data gathered in the study were analyzed using appropriate statistical tools. Descriptive statistics such as frequency and percentage were used to present the demographic profile of the respondents. The mean and standard deviation were utilized to determine the level of awareness and the extent of protective and prevention strategies against chronic hunger.

For inferential analysis, Pearson's Product-Moment Correlation Coefficient (Pearson's r) was used to examine the relationship between demographic variables and the effectiveness of the strategies employed by households. All statistical analyses were interpreted at a 0.05 level of significance.

Ethical Considerations

Ethical standards were strictly observed throughout the study. Participation was voluntary, and respondents were informed of the purpose of the research. Confidentiality and anonymity were ensured, and no personal identifying information was disclosed. Respondents were also informed of their right to withdraw from the study at any time without penalty.

Statistical Treatment of Data

The data collected were treated using appropriate statistical methods. Frequency and percentage were used to describe the demographic profile of the respondents. The mean and standard deviation were used to assess the level of awareness and implementation of protective and prevention strategies against chronic hunger. Pearson's r was employed to determine the relationship between variables. All results were interpreted at a 0.05 level of significance, where p -values less than 0.05 indicated statistically significant relationships.

RESULTS AND DISCUSSION

This chapter presents a thorough study and interpretation of the data gathered to determine the food protection and prevention strategies against chronic hunger in Barangay Apas, Cebu City and examine the relationship between their demographic profile and these variables.

Table 1 Demographic Profile in Terms of Gender

Gender	Frequency	Percentage
Male	12	40.00%
Female	18	60.00%
Total	30	100%

The data in Table 1 show that 60.00% (18) of the respondents are female, while 40.00% (12) are male, indicating a slight female majority with a relatively balanced distribution. This suggests that both genders are well represented, supporting more inclusive and reliable findings. Such a pattern is consistent with studies showing higher female participation in many community and social contexts, while gender differences in perspectives are becoming less pronounced due to equal access to opportunities (OECD, 2023).

Table 2. Demographic Profile in Terms of Age

Age	Frequency	Percentage
18-27	2	6.67%
28-37	2	6.67%
38-47	12	40.00%
48-57	11	36.66%
58-Above	3	10.00%
Total	30	100%

The data in Table 2 show that most respondents belong to the 38–47 age group (40.00%), followed by 48–57 (36.66%), indicating a predominantly middle-aged population. Only a small proportion falls within the younger groups (18–37 at 13.34%), while 10.00% are aged 58 and above. This suggests that most respondents are experienced adults, which may contribute to more informed and practical perspectives, consistent with findings that mid- to late-career individuals often demonstrate greater stability and decision-making capacity (OECD, 2023).

Table 3. Demographic Profile in Terms of Educational Qualifications

Educational Qualifications	Frequency	Percentage
High School	5	6.67%
College	9	16.67%
College Graduate	14	46.66%
Masters	2	0.30%
Total	30	100%

The data in Table 3 show that the largest proportion of respondents are college graduates (46.66%), followed by those with college-level education (16.67%) and high school education (6.67%), while only a very small percentage have master’s degrees (0.30%). This indicates that most respondents have attained higher education, which may contribute to better understanding and informed decision-making. Such a trend is consistent with findings that higher educational attainment enhances individuals’ knowledge, awareness, and participation in community and social issues (OECD, 2023).

Table 4. Demographic Profile in Terms of Civil Status

Civil Status	Frequency	Percentage
Single	2	6.67%
Married	22	73.33%
Live-In	4	13.33%
Widow	2	6.67%
Total	30	100.00%

The data in Table 4 show that most respondents are married (73.33%), followed by those in a live-in arrangement (13.33%), while both single and widowed respondents each account for 6.67%. This indicates that most

respondents belong to family-oriented household structures, suggesting greater social and familial responsibilities. Studies note that civil status, particularly marriage, is often associated with increased stability and involvement in community and household decision-making (OECD, 2023).

Table 5. Demographic Profile in Terms of Occupation

Occupation	Frequency	Percentage
Student	2	6.67%
BPO Employee	9	0.30%
Housewife	9	0.30%
Teacher	4	13.33%
Construction Worker	4	13.33%
Security Officer	2	6.67%
Total	30	100.00%

The data in Table 5 show that respondents come from diverse occupational backgrounds. The largest groups are BPO employees and housewives, while teachers and construction workers each account for 13.33%. Meanwhile, students and security officers represent the smallest groups at 6.67% each. This indicates a mixed composition of respondents from both professional and non-professional sectors, which may contribute to varied perspectives based on work experience, socioeconomic status, and daily exposure to different environments (OECD, 2023).

Table 6. Demographic Profile in Terms of Household Size

Household Size	Frequency	Percentage
Single household	2	6.67%
Small household	15	50.00%
Medium household	13	43.33%
Total	30	100.00%

The data in Table 6 show that most respondents belong to small households (50.00%), followed by medium households (43.33%), while only 6.67% live in single households. This indicates that most respondents reside in family-based living arrangements, suggesting shared responsibilities and stronger household support systems. Such patterns are important in understanding community dynamics, as household size is often linked to resource allocation, social interaction, and daily living conditions (OECD, 2023).

Table 7 Demographic Profile in Terms of Food Protection and Prevention Strategies

Food Protection and Prevention Strategies	Frequency	Percentage
Food Security Programs	17	56.67%
Nutrition Education	13	43.33%
Total	30	100.00%

The data in Table 7 show that most respondents are involved in Food Security Programs (56.67%), while the remaining 43.33% participate in Nutrition Education. This indicates that respondents are engaged in key food protection and prevention strategies, with a slightly higher emphasis on direct food security interventions. The distribution suggests that both strategies are actively implemented, reflecting community efforts to address food access and nutritional awareness. Such initiatives are consistent with global approaches that prioritize integrated food security and nutrition education to improve overall well-being and reduce vulnerability to hunger and malnutrition (FAO, 2023).

Table 8 Perceived Level of Protection Strategies Against Chronic Hunger Among Respondents in Barangay Apas, Cebu City

Indicators	Sd	Mean	Interpretation
1. The barangay provides regular food assistance to households experiencing food insecurity.	0.50	2.60	Agree
2. School feeding programs are consistently implemented for children in need.	0.50	2.60	Agree
3. Community food banks or pantries are accessible to residents.	0.51	2.53	Agree
4. Pregnant women and lactating mothers receive prioritized nutrition support.	0.50	2.57	Agree
5. Senior citizens are regularly included in food assistance programs.	0.51	2.47	Disagree
6. NGOs actively support feeding and nutrition programs in the barangay.	0.51	2.53	Agree
7. Health workers monitor malnutrition cases in the community.	0.51	2.53	Agree
8. Emergency food aid is provided during crises or disasters.	0.50	2.60	Agree
9. Residents are informed about available food assistance programs.	0.50	2.57	Agree
10. Local government coordinates effectively with organizations to address hunger.	0.50	2.60	Agree
11. Nutritional supplements are distributed to undernourished individuals.	0.51	2.53	Agree
12. Community kitchens or communal feeding areas are available when needed.	0.50	2.60	Agree
13. Food distribution programs are fair and reach the most vulnerable families.	0.50	2.57	Agree
14. Livelihood assistance programs help families secure daily food needs.	0.51	2.53	Agree
15. Social welfare services are responsive to reports of hunger cases.	0.50	2.60	Agree
Average Mean	2.56		Agree

Scale: 3.26 - 4.00 “Strongly Agree”; 2.51 – 3.25 “Agree”; 1.76 – 2.50 “Disagree”; 1.00 – 1.75 “Strongly Disagree”

The data in Table 8 show the perceived level of protection strategies against chronic hunger among respondents in Barangay Apas, Cebu City. The overall mean of 2.56, interpreted as “Agree,” indicates that respondents generally perceive that hunger protection strategies are moderately implemented and accessible in the community. Most indicators were rated as “Agree,” particularly on the provision of food assistance (M = 2.60), school feeding programs (M = 2.60), emergency food aid during crises (M = 2.60), availability of communal feeding support (M = 2.60), and effective coordination with local government and organizations (M = 2.60). These results suggest that the barangay has active and coordinated food support mechanisms addressing food insecurity.

However, one indicator was rated lower and interpreted as “Disagree,” specifically the inclusion of senior citizens in food assistance programs (M = 2.47). This implies a gap in targeting vulnerable elderly populations, which may need strengthened attention in program implementation. Overall, the findings suggest that while Barangay Apas demonstrates functional and multi-sectoral efforts in addressing chronic hunger, improvements are still needed in ensuring that all vulnerable groups, particularly senior citizens, are consistently included in nutrition and food support programs. This aligns with global food security frameworks emphasizing equitable access and inclusive nutrition interventions for vulnerable populations (FAO, 2023).

Table 9 Perceived Level of Prevention Strategies Against Chronic Hunger Among Respondents in Barangay Apas, Cebu City

Indicators	Sd	Mean	Interpretation
1. The barangay promotes livelihood training programs for residents.	0.49	2.63	Agree
2. Skills development programs help residents increase income opportunities.	0.51	2.53	Agree
3. Urban gardening or backyard farming is encouraged in the community.	0.51	2.50	Disagree
4. Residents are educated about proper nutrition and food budgeting.	0.5	2.57	Agree
5. Local government supports small-scale entrepreneurship programs.	0.5	2.57	Agree
6. Employment opportunities are accessible to qualified residents.	0.5	2.60	Agree
7. Poverty reduction programs are effectively implemented in the barangay.	0.5	2.60	Agree
8. Family planning education helps families manage household resources.	0.5	2.60	Agree
9. Community members are encouraged to produce their own food.	0.51	2.53	Agree
10. Sustainable agriculture programs are promoted in the barangay.	0.5	2.60	Agree
11. Financial literacy seminars are conducted regularly.	0.49	2.63	Agree
12. Partnerships with private sectors help create job opportunities.	0.5	2.60	Agree
13. Infrastructure projects contribute to local economic growth.	0.5	2.60	Agree
14. Youth are given access to education and skills training programs.	0.49	2.63	Agree
15. Long-term food security planning is prioritized by local officials.	0.51	2.50	Disagree
Average Mean	2.58		Agree

Scale: 3.26 - 4.00 “Strongly Agree”; 2.51 – 3.25 “Agree”; 1.76 – 2.50 “Disagree”; 1.00 – 1.75 “Strongly Disagree”

The data in Table 9 present the perceived level of prevention strategies against chronic hunger among respondents in Barangay Apas, Cebu City. The overall mean of 2.58, interpreted as “Agree,” indicates that respondents generally perceive that prevention strategies are moderately implemented and actively supported in the community. Most indicators were rated positively, particularly on livelihood training programs ($M = 2.63$), financial literacy seminars ($M = 2.63$), employment opportunities ($M = 2.60$), poverty reduction programs ($M = 2.60$), sustainable agriculture initiatives ($M = 2.60$), and youth skills development ($M = 2.63$). These findings suggest that the barangay provides multi-sectoral interventions focused on improving income generation and long-term food security.

However, two indicators were rated lower and interpreted as “Disagree,” specifically the promotion of urban gardening or backyard farming ($M = 2.50$) and the prioritization of long-term food security planning ($M = 2.50$). This indicates a gap in sustainable, long-term food production and strategic planning initiatives, which are essential for reducing chronic hunger beyond immediate assistance. Overall, the results suggest that while Barangay Apas has strong livelihood and economic support programs, there is still a need to strengthen community-based food production and long-term strategic planning to ensure sustainable food security. This aligns with global development perspectives emphasizing the integration of livelihood programs and sustainable agriculture in addressing chronic hunger and food insecurity (FAO, 2023).

Table 10 Test of Significant Relationship Between the Perceived Level of Protection Strategies and Prevention Strategies Against Chronic Hunger Among Respondents in Barangay Apas, Cebu City

Test Variables	p-value	Decision
Perceived level of protection strategies vs Perceived level of prevention strategies	0.88	Retain H0

Note: If $p \leq 0.05$, with a significant relationship

Table 10 presents the test of significant relationship between the perceived level of protection strategies and prevention strategies against chronic hunger among respondents in Barangay Apas, Cebu City. The obtained p-value of 0.88, which is higher than the 0.05 level of significance, indicates that the null hypothesis (H_0) is retained, meaning there is no significant relationship between the two variables. This result suggests that respondents' perceptions of protection strategies (e.g., food assistance, feeding programs, and emergency aid) are not statistically associated with their perceptions of prevention strategies (e.g., livelihood programs, skills training, and long-term food security initiatives). In other words, even if both strategies are perceived as present or effective, they function as independent components rather than being strongly interconnected in the respondents' views.

This finding implies that protection and prevention efforts may be experienced separately within the community where protection strategies address immediate food needs, while prevention strategies focus on long-term economic and food security solutions. This aligns with food security frameworks that distinguish between short-term relief interventions and long-term developmental approaches, emphasizing that both are essential but may not always directly influence one another in community perception (FAO, 2023). Overall, the result highlights the need for a more integrated approach in implementing hunger reduction programs, ensuring that protection and prevention strategies are not only both present but also more effectively connected in practice and community awareness.

Table 11 Test Of Significant Difference Between the Perceived Level of Protection Strategies Against Chronic Hunger and Demographic Profiles Among Respondents in Barangay Apas, Cebu City

Test Variables	p-value	Decision
Level of protection strategies vs Gender	0.78	Retain H0
Level of protection strategies vs Age	0.44	Retain H0
Level of protection strategies vs Educational Attainment	0.01	Reject H0
Level of protection strategies vs Civil Status	0.82	Retain H0
Level of protection strategies vs Occupation	0.87	Retain H0
Level of protection strategies vs Household Size	0.44	Retain H0
Level of protection strategies vs Protective and Prevention Strategies	0.10	Retain H0

Note: If $p \leq 0.05$, with a significant difference

Table 11 presents the test of significant difference between the perceived level of protection strategies against chronic hunger and respondents' demographic profiles in Barangay Apas, Cebu City. The results show that most variables have p-values greater than 0.05, including gender ($p = 0.78$), age ($p = 0.44$), civil status ($p = 0.82$), occupation ($p = 0.87$), household size ($p = 0.44$), and perceived prevention strategies ($p = 0.10$), leading to the retention of the null hypothesis (H_0). This indicates that there are no significant differences in perceptions of protection strategies when respondents are grouped according to these demographic characteristics.

However, educational attainment yielded a p-value of 0.01, which is lower than 0.05, resulting in the rejection of the null hypothesis (H_0). This means there is a significant difference in the perceived level of protection

strategies when respondents are grouped according to their educational background. This suggests that individuals with different levels of education may vary in how they understand, evaluate, or experience hunger-related protection programs, likely due to differences in awareness, access to information, and critical evaluation of social services.

Overall, the findings imply that demographic factors generally do not influence perceptions of protection strategies, except for educational attainment, which plays a significant role. This aligns with development literature emphasizing that education is a key determinant of individuals' awareness and engagement with social protection programs, particularly in addressing issues such as food insecurity and chronic hunger (FAO, 2023).

Table 12 Test Of Significant Difference Between the Perceived Level of Prevention Strategies Against Chronic Hunger and Demographic Profiles Among Respondents in Barangay Apas, Cebu City

Test Variables	p-value	Decision
Level of prevention strategies vs Gender	0.08	Retain H0
Level of prevention strategies vs Age	0.35	Retain H0
Level of prevention strategies vs Educational Attainment	0.89	Retain H0
Level of prevention strategies vs Civil Status	0.28	Retain H0
Level of prevention strategies vs Occupation	0.06	Retain H0
Level of prevention strategies vs Household Size	0.48	Retain H0
Level of prevention strategies vs Protective and Prevention Strategies	0.29	Retain H0

Note: If $p \leq 0.05$, with a significant difference

Table 10 presents the test of significant difference between the perceived level of prevention strategies against chronic hunger and respondents' demographic profiles in Barangay Apas, Cebu City. The results show that all computed p-values are greater than the 0.05 level of significance, including gender ($p = 0.08$), age ($p = 0.35$), educational attainment ($p = 0.89$), civil status ($p = 0.28$), occupation ($p = 0.06$), household size ($p = 0.48$), and perceived protection strategies ($p = 0.29$). Thus, the null hypothesis (H_0) is retained for all variables, indicating that there are no significant differences in the perceived level of prevention strategies when respondents are grouped according to their demographic characteristics. This implies that respondents generally share similar perceptions of prevention strategies regardless of their age, gender, educational background, civil status, occupation, or household size. It suggests that awareness and evaluation of prevention programs such as livelihood support, skills training, and food security initiatives are consistently understood across different population groups in the community.

The finding also indicates that prevention strategies against chronic hunger are likely broadly implemented and uniformly experienced, which may contribute to the absence of significant demographic differences. This aligns with development studies emphasizing that community-wide interventions, especially those related to food security and livelihood programs, tend to produce uniform perceptions when access and implementation are widespread and inclusive (FAO, 2023). Overall, the results suggest that demographic factors do not significantly influence perceptions of prevention strategies against chronic hunger in Barangay Apas, highlighting the role of inclusive and community-based program implementation in shaping consistent public perception.

Table 13 Protective and Prevention Strategies Against Chronic Hunger plan

Key Area	Activities	Persons Involved	Expected Outcome
Strengthening Elderly Food Assistance	Establish targeted feeding programs and regular food distribution specifically for senior citizens	Barangay Council, DSWD, Health Workers,	Improved inclusion and reduced food vulnerability

		Senior Citizen Association	among elderly residents
Enhancement of Urban Gardening & Backyard Farming	Conduct training on urban gardening, distribute seeds/tools, and establish community gardens	DA (Department of Agriculture), Barangay Officials, NGOs, Residents	Increased household food production and improved food self-sufficiency
Long-Term Food Security Planning	Develop a 3–5-year barangay food security and nutrition roadmap	Barangay Development Council, LGU Planning Office, Nutritionists	Sustainable and strategic approach to reducing chronic hunger
Expansion of Nutrition Education Programs	Strengthen seminars on nutrition, food budgeting, and healthy eating practices	BNS (Barangay Nutrition Scholars), Schools, Health Centers	Improved community knowledge on proper nutrition and food utilization
Livelihood and Income Generation Support	Expand skills training, entrepreneurship programs, and job linkage assistance	TESDA, LGU, Private Sector Partners, NGOs	Increased household income leading to better food access
Strengthening Monitoring of Vulnerable Groups	Regular profiling and monitoring of malnourished individuals and food-insecure households	Barangay Health Workers, Nutrition Office, Social Workers	Early identification and intervention for at-risk populations
Improved Coordination of Food Security Programs	Strengthen coordination between LGU, NGOs, and national agencies for food aid distribution	Barangay Officials, DSWD, NGOs, FAO-linked programs	More efficient, organized, and equitable food assistance delivery
Financial Literacy and Household Resource Management	Conduct seminars on budgeting, savings, and food expenditure prioritization	NGOs, Schools, LGU, Community Trainers	Better household financial management and reduced food insecurity
Inclusive Program Implementation Across Demographics	Ensure equal access to programs regardless of age, gender, occupation, or education level	Barangay Council, Program Implementers	Uniform access and participation in food security interventions
Community Awareness and Participation Campaigns	Strengthen IEC campaigns on hunger prevention programs and available services	SK, Barangay Information Officers, Community Leaders	Higher awareness and participation in food protection initiatives

Table 12 presents a comprehensive Protective and Prevention Strategies Against Chronic Hunger Plan that focuses on addressing food insecurity through integrated, inclusive, and long-term community-based interventions. The plan prioritizes strengthening elderly food assistance by providing targeted feeding programs and regular food distribution to reduce vulnerability among senior citizens, implemented with the support of barangay officials, DSWD, and health workers. It also promotes enhancement of urban gardening and backyard farming through training, seed distribution, and community garden establishment, aiming to increase household

food production and self-sufficiency. Long-term food security planning is emphasized through the development of a 3–5-year barangay nutrition roadmap to ensure sustainable interventions. Nutrition education programs are expanded to improve knowledge on healthy eating and food budgeting, while livelihood and income generation support through TESDA and LGU initiatives aims to increase purchasing power and food access. The plan also strengthens monitoring of vulnerable groups for early identification of malnutrition cases and improves coordination among agencies for more efficient food aid distribution. Additionally, financial literacy programs are included to promote better household resource management, while inclusive implementation ensures equal access across all demographics. Lastly, community awareness campaigns enhance participation and utilization of food security programs, collectively contributing to reduced chronic hunger and improved community well-being.

Findings of the Study

The study found that respondents in Barangay Apas, Cebu City are mostly female, middle-aged, college graduates, and married, with diverse occupations and predominantly small to medium household sizes. Engagement in food protection strategies is slightly higher in food security programs (56.67%) compared to nutrition education (43.33%).

In terms of implementation, respondents generally perceive protection strategies against chronic hunger as moderately effective (overall mean = 2.56), particularly in food assistance, school feeding, emergency food aid, and coordination with local government and organizations. However, gaps were identified in senior citizen inclusion in assistance programs. Similarly, prevention strategies were rated as “Agree” (overall mean = 2.58), with strengths in livelihood programs, financial literacy, employment opportunities, and skills training, but weaknesses in urban gardening initiatives and long-term food security planning.

Statistical results show no significant relationship between protection and prevention strategies, indicating they function independently in respondents’ perceptions. Most demographic variables also showed no significant differences, except educational attainment, which significantly influenced perceptions of protection strategies. Overall, the findings indicate that while programs are widely implemented and consistently perceived across groups, integration, inclusivity, and sustainability remain key areas for improvement.

CONCLUSION

The study concludes that Barangay Apas has moderately effective food protection and prevention strategies against chronic hunger, supported by active government programs, community participation, and livelihood initiatives. However, these strategies remain partially fragmented, as protection and prevention efforts are not strongly interconnected. While immediate food assistance and long-term livelihood programs are both present, their integration into a unified food security system is still limited.

Furthermore, perceptions of these strategies are generally uniform across demographic groups, indicating equitable exposure and implementation. However, educational attainment plays a role in shaping how protection strategies are perceived, suggesting that awareness and understanding influence evaluation of food security programs. Despite existing efforts, gaps in elderly inclusion, sustainable food production, and long-term planning highlight the need for a more structured and integrated approach to addressing chronic hunger.

RECOMMENDATION

It is recommended that Barangay Apas strengthen the integration of protection and prevention strategies by linking immediate food assistance programs with long-term livelihood and food production initiatives. Special attention should be given to improving the inclusion of senior citizens in nutrition and feeding programs to ensure equitable access for all vulnerable groups.

The barangay should also prioritize the expansion of urban gardening and backyard farming programs to enhance household food self-sufficiency and sustainability. Strengthening long-term food security planning through a

formal barangay nutrition and development roadmap is essential to ensure continuous and coordinated interventions.

Additionally, targeted nutrition education should be intensified, especially for groups with lower educational attainment, to improve understanding and participation in food security programs. Lastly, stronger monitoring systems and inter-agency coordination with LGUs, NGOs, and national agencies should be established to ensure efficient, inclusive, and sustainable delivery of food protection and prevention strategies.

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