

Competence of Barangay Nutrition Scholars in the Implementation of National Health Nutrition Program in Nabua, Camarines Sur

Clariza Benosa Salalima

Nurse, Rural Health Unit - Nabua

ABSTRACT

Barangay Nutrition Scholar plays a vital role in the communities, who provides basic nutrition services for the members of the barangay. They are the grassroots in the delivery of national health nutrition programs. The study utilized a qualitative descriptive correlational design with a questionnaire as a tool for data collection tool for data collection to identify the competence of barangay nutrition scholars in the implementation of the national health nutrition program in Nabua, Camarines Sur. A total of 68 BNS of Nabua participated the survey. Weighted mean, t-test, and chi-square test were used to analyze the data collected. Findings revealed that the respondents are competent along implementation, monitoring and evaluation, documentation and record keeping, coordination, advocacy and promotion and planning and the political, social and personal factors affects the level of competence of Barangay Nutrition Scholars in the Implementation of National Health Nutrition Program in Nabua, Camarines Sur. Additionally, the study revealed that there is a significant relationship between the profile of the respondents and the level of competence of BNS across various aspects of the National Health Nutrition Program. Although BNS display sufficient knowledge and commitment, training, resources, and support gaps result in sub-optimal program, leading to sub-standard delivery. Overarching themes clearly demonstrated the necessity of increased capacity-building efforts, logistical support, and shifts in policy to enable BNS and strengthen program success. Frequent periodic trainings, availability of proper tools and effective inter department coordination are some of the recommendations given, to ensure proper implementation of National Health and Nutrition Program.

KEYWORDS: Competence, Barangay Nutrition Scholars, Implementation, National Health Nutrition Program, Nabua

Introduction

Growth and development, as well as health and wellness, depend on adequate nutrition. It is a crucial component of a healthy lifestyle for everyone, but particularly for kids. Our capacity to fully appreciate life can be directly impacted by the foods we choose to eat. Eating a nutritious diet helps to prolong and improve the quality of life while preventing future illnesses. Establishing sound nutritional foundations in infancy can have long-term advantages since a healthy child is more likely to grow up to be a healthy adult. Nutritional supplements span child development starting with neonatal nutrition.

Malnutrition is a serious problem in the world and is covered in detail in food and nutrition reports every year. More health issues are caused by malnutrition than by any other factor. Approximately four million

people die worldwide as a result of the health issues brought on by being overweight or obese (Okunogbe et al., 2022). No country can afford to ignore the widespread problem of malnutrition. Wegmuller et al. (2020) estimate that 39% of adults worldwide are overweight or obese, and around one-third of women in their reproductive years suffer from anemia. In addition, an estimated 20 million babies are born underweight each year.

Stunting, maternal undernutrition, low birth weight, maternal overweight and obesity, anemia, and micronutrient deficiencies are the Philippines' top nutrition priorities. In recent decades, the Philippines has seen a rise in overweight and obesity, especially among women, but stunting, low birth weight, and wasting rates have virtually stayed the same. While great progress has been achieved in lowering other micronutrient deficits like vitamin A and iodine, anemia affects both children and expectant mothers. Interventions in the Philippines must focus on reducing low birth weight in particular and address the early variables that contribute to stunting and wasting (Rivera et al., 2020).

In order to reduce undernutrition, health professionals must possess the nutrition expertise necessary to provide caregivers with correct, sufficient, and consistent recommendations. Concerns have been raised about the competence of health professionals' counseling and nutrition understanding on a global scale. Comprehensive, relevant, and needs-based nutrition instruction has not historically been given priority in medical education. As a result, medical school graduates frequently don't know enough about nutrition. Such a lack may lead to a lack of confidence and competence on the part of medical practitioners when providing basic nutritional advice to their patients. Thus, this deficiency can discourage medical professionals from offering nutrition advice and support to their patients (Malan et al., 2020).

Every barangay must have at least one Barangay Nutrition Scholar (BNS) in order to address basic health and nutrition services at all levels, with a particular focus on malnutrition among children. This is mandated by Presidential Decree No. 1569, which aims to strengthen the Barangay Nutrition Program by providing funding for a BNS in every barangay and for other purposes. A key role in the community is played by the Barangay Nutrition Scholar, who offers the barangay's residents basic nutrition services. When it comes to implementing national health nutrition programs, they are the front-line staff. In addition to offering basic orientation on nutrition advice, they also manage community-based feeding programs, organize mother's classes and breastfeeding, and encourage home or community gardening. She needs to be persistent and passionate about working in nutrition care in order to be a barangay nutrition scholar. The nutritionist is eager to assist the community's members in achieving optimal nutritional health. If the barangay nutrition scholar is capable of carrying out duties as a nutrition worker, this can be feasible. Because they help and support doctors, dentists, nutritionists, public health nurses, and midwives, the BNS are essential to the Barangay Health Centers.

The researcher has worked in the Rural Health Unit for almost eight years as a Community Health Nurse, and during that time she has seen many cases of malnutrition, with a growing proportion of children being diagnosed with severe or moderate acute malnutrition. It is quite tragic to see these circumstances, especially when medical professionals might have done much more to improve the wellbeing of these kids. Young people are frequently referred to as the future's hope, and a child's first 1,000 days of existence are crucial for their development. During this time, malnutrition can seriously impair a child's capacity to meet critical developmental milestones, obstructing proper maturation and holistic growth. Since having a parent, this viewpoint on the need of healthy eating has grown even more significant and personal to her. It reaffirms her dedication to making sure the community and its healthcare professionals—especially the Barangay Nutrition Scholars—have the necessary information, abilities, and mindsets to properly evaluate

and recognize childhood malnutrition. She promotes appropriate management techniques to help impacted kids regain a good nutritional status.

Enhancing the barangay nutrition scholar's knowledge, abilities, and attitude toward high-quality national health nutrition programs will be made possible by the research; consequently, the community will be able to function at its best thanks to their increased competence in implementing these programs. Additionally, this research will help the barangay nutrition scholars advance both personally and professionally in order to provide basic nutrition care services at the barangay level. According to the researcher, Barangay Nutrition Scholars act as a liaison between the medical staff and the community. Because she works directly with barangays and directly engages barangay nutrition scholars in the execution of national health nutrition initiatives, she will thus also benefit from this study.

1.1.Objectives of the Study

In This study aimed to determine the level of competence of barangay nutrition scholars in the implementation of national health nutrition program in Nabua, Camarines Sur. Specifically, it sought to address the following objectives:

1. Determine the barangay nutrition scholar's profile, in terms of:
 - a. age
 - b. sex
 - c. civil status
 - d. educational attainment
 - e. length of service
 - f. monthly honorarium
 - g. trainings attended
2. Assess the perceived level of competence of barangay nutrition scholars in the implementing the national health nutrition program. Along:
 - a. planning
 - b. coordination
 - c. advocacy and promotion
 - d. implementation
 - e. monitoring and evaluation
 - f. documentation and record keeping
3. Examine the relationship between the profile of barangay nutrition scholars and the level of competence in implementing the national health nutrition program.
4. Propose a plan to improve the competence of barangay nutrition scholars in the implementation of the national health nutrition program in Nabua, Camarines Sur.

1.1.1. Scope and Limitations of the Study

This study focused on assessing the level of competence of Barangay Nutrition Scholars (BNS) in implementing the National Health Nutrition Program in Nabua, Camarines Sur. The respondents included 68 Barangay Nutrition Scholars from 42 barangays in the municipality, along with health care providers involved in implementing nutrition programs in their assigned areas. The study utilized total enumeration to include all BNS under Rural Health Unit I and II. Data collection took place from February 2024 to May 2024, using questionnaires and interviews to gather relevant information.

The study was limited to the data obtained from the responses of the Barangay Nutrition Scholars and health care providers through questionnaires and interviews. It did not cover other aspects of program

implementation, such as external factors influencing nutrition outcomes or broader community perspectives. The findings were confined to the experiences and competencies of the respondents within the municipality of Nabua during the specified study period.

2. METHODOLOGY

2.1. Research Method

This study employed the descriptive-correlational approach. This aims to ascertain the relationships between two variables. Data are collected from multiple variables, and correlational statistical methods are applied to analyze the data. The descriptive method was utilized to gather and interpret factual data using appropriate tools to assess the competency of barangay nutrition scholars in implementing the national nutrition program in Nabua, Camarines Sur.

2.2. Respondents

The respondents of this study were the main source of information in the fulfillment of the study. They were the key elements for the success and failure of this research work. The respondents were composed of the barangay nutrition scholars who were concerned and involved in the implementation of the nutrition programs. There were 68 barangay nutrition scholars in the whole municipality of Nabua. Total enumeration was applied.

2.3. Sampling Techniques

All 68 Barangay Nutrition Scholars (BNS) in Nabua were incorporated as respondents in this study, utilizing total enumeration sampling. This strategy guarantees comprehensive data collection by include every member of the target population to avoid sampling bias and ensuring total representation of the group under investigation. Total enumeration sampling maximizes the accuracy and reliability of findings by including the complete spectrum of viewpoints and attributes, so obviating the necessity for inferential estimations concerning the selected sample.

2.4. Research Instruments

The researcher employed the questionnaire as the main data gathering tool, documentary analysis and will be supplemented by an informal interview and to support the data that will be gathering. The questionnaire was subjected to validation process to find out whether the questionnaire will be effectively measuring the parameters to be considered. In order to validate the questionnaire, the sample questionnaire was prepared for dry-run to test its validity and evaluated on the following criteria: relevance to the research topic; organization of question; clarity of the language; grammatical consistency, and; freedom of assumptions. Copies was produced in preparation for a dry run which was conducted at Balatan, Camarines Sur. The dry run involved 10 BNS, allowing the researcher to assess their responses to the questionnaire.

2.5. Data Gathering Procedures

The researcher prepared a letter seeking permission from the Municipal Health Officer of Nabua, Camarines Sur to conduct the survey. A letter addressed to the respondents was attached before the questions to assure that the answers will be treated confidentially. Upon approval of the permit, the researcher personally distributes and retrieve the questionnaires to the respondents to ensure 100% retrieval and to explain clearly the purpose of the study and at the same time conducted an informal interview. The data will be organized, tabulated and will be interpreted both quantitatively and qualitatively.

2.6. Statistical Treatment of Data

The researcher used the percentage technique, weighted mean, chi-square test and t-test. Percentage Technique was used to determine and analyze responses on the profile of the respondents. Weighted Mean was used to determine the level of competence of barangay nutrition scholar in the implementation of national health nutrition program in Nabua, Camarines Sur. For the level of competence of the BNS in the implementation of national health nutrition program the implementation of weighted mean are as follows:

Scale	Range Value	Verbal Interpretation
4	3.25-4.00	Highly Competent
3	2.50-3.24	Competent
2	1.75-2.49	Moderately Competent
1	1.00-1.74	Not Competent

The Four Point Likert Scale used to assess the factors affecting the level of competence of barangay nutrition scholars in the implementation of national health nutrition program. The following scale was used:

Scale	Range Value	Verbal Interpretation
4	3.25-4.00	Greatly Affect
3	2.50-3.24	Affect
2	1.75-2.49	Moderately Affect
1	1.00-1.74	Does Not Affect

Chi-square Test was used to determine the relationship between the profile of the respondents and the level of competence of the barangay nutrition scholars in Nabua, Camarines Sur. T-test was used to determine the difference between the profile of the respondents and the level of competence of the barangay nutrition scholars in Nabua, Camarines Sur.

2.7. Ethical Consideration

The study was conducted in accordance with ethical research standards, and data collection involved ensuring voluntary informed consent from respondents. Strict measures of confidentiality for protection of the respondents' privacy were applied so that all necessary information was treated anonymously and used only for research purposes. Hence the ethical principles guided the integrity, respect, and transparency of the entire research undertaking.

3. RESULTS AND DISCUSSIONS

Table 1 shows the distribution of the respondents by age. As shown in the data, 19 or 27.94 percent of the barangay nutrition scholars belong to 39-48 years old; 18 or 26.47 percent belong to age groups of 29-38 years old; 17 or 25 percent belong to 49-58 years' old; eight (8) or 11.76 percent belong to 59-68 age group and six (6) or 8.82 percent belong to age group 19-28 years old. It shows further that the greater number belonged to 39-38 years old. The age distribution has important ramifications for future nutrition program sustainability and efficacy as well as the proficiency of barangay nutrition academics. The program's long-term continuity and the development of community trust benefit from the experience and stability of lower middle-aged and middle-aged BNS, who can be between the ages of 39 and 48 (Handley et al., 2022).

Table 1. Distribution of the Respondents According to Age

INDICATOR	FREQUENCY	PERCENTAGE
19-28 years old	6	8.82
29-38 years old	18	26.47
39-48 years old	19	27.94
49-58 years old	17	25
59-68 years old	8	11.76
Total	68	100.00

In Figure 1, the distribution of the respondents by sex, out of the 68 barangay nutrition scholars, 66 or 97.06 percent were females while two (2) or 2.94 percent was male. This implies that the majority of the respondents are female. Barangay nutrition scholar are mostly women, and they are categorized as the volunteers who render their service to cater the need of the community that require attention in terms of nutrition. The preponderance of female barangay nutrition researchers is indicative of a broader pattern in which women appear to have a more active part in numerous community health initiatives.

Given that women are typically the primary caretakers in many societies and participate in caring and health-promoting activities, this may have its roots in historical and cultural contexts. Furthermore, the sample shows that a high proportion of women in these positions is important for enhancing program efficacy because of their familiarity with family dynamics and how these are inherently integrated into the framework of community health play (Jones et al., 2019).

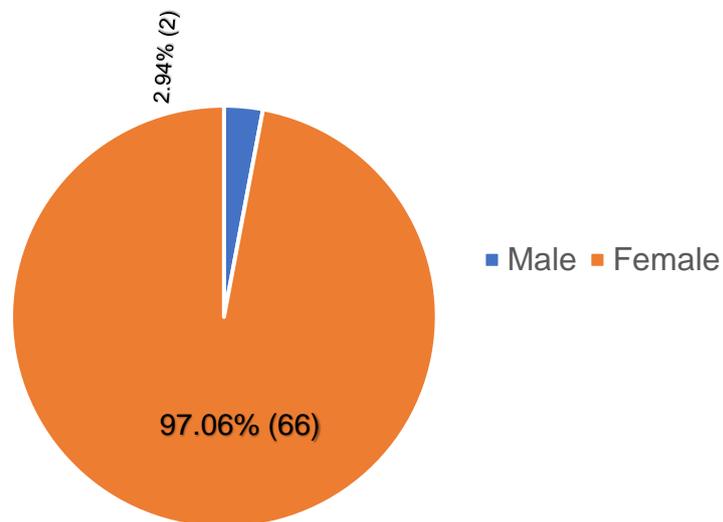


Figure 1. Distribution of Respondents According to Sex

BNS are unable to address the nutritional needs of the entire community as they have a low representation of males. Women provide care well, but men can play a key role here too, especially in involving the male members of the household and addressing the issues that require stronger and more inclusive gender lens. In the long-run, having a more gender-balanced representation would lead to holistic understanding of the community’s needs, more so in households where men are the chief decision-makers in terms of food purchases and health practices.

Civil status of respondents is reflected in Table 2. Among the 68 barangay nutrition scholars, 41 or 60.29 percent are married; 14 or 20.59 percent are single; 11 or 16.18 percent are widow/widower and two (2) or 2.94 percent are single. Majority of the barangay nutrition scholars of Nabua are married. The relationship may be due to socio-cultural context with a high rate of married individuals who can take years remaining engaged to community services. This family mindset might help them embrace and understand the concerns of families, especially around child malnourishment and maternal health. Married BNS are also likely to be much more grounded in their communities, giving them greater ability to build long-term ties with residents, thus enhancing trust and better communication. This stability allows them to successfully manage community-based projects.

Table 2. Distribution of Respondents According to Civil Status

INDICATOR	FREQUENCY	PERCENTAGE
Single	14	20.59
Married	41	60.29
Widow/Widower	11	16.18
Separated	2	2.94
Total	68	100.00

However, the high percentage of BNS who are single may be explained by their youth and independence, which allow them to volunteer in the community without being constrained by familial responsibilities (Harries et al., 2023). BNS who are single usually have more time and energy to dedicate to improving their communities because they are not burdened with the responsibilities of marriage or family. This makes it possible to be more available and focused, especially on jobs that are needed for extensive data collection and extended fieldwork.

Furthermore, the smaller proportion of widows or widowers shows that older people are involved, as they may find community service rewarding and a way to stay in touch with others after losing a spouse. Because it gives them a feeling of purpose and social support, this involvement benefits the community as well as the widowed scholars' well-being (Handley et al., 2022). Working with vulnerable people can benefit from their life experience, which is frequently marked by resilience. Additionally, their years of experience running houses have given them wisdom and a wealth of information that enables them to comprehend the complexities of nutrition-related issues in the community. Their involvement emphasizes how crucial inclusive volunteerism is.

Table 3 indicates the educational attainment among the 68 respondents. It is revealed that 28 or 41.18 percent are high school graduates; 24 or 35.29 percent are college graduate; 12 or 17.65 percent are college undergraduate; four (4) or 5.88 percent are high school undergraduate and none of them is elementary graduate.

Table 3. Distribution of Respondents According to Educational Attainment

INDICATOR	FREQUENCY	PERCENTAGE
College Graduate	24	35.29
College Undergraduate	12	17.65
High School Graduate	28	41.18

High School Undergraduate	4	5.88
Total	68	100.00

Since the largest group made up of high school graduates, this implies that a good number of the BNS have at least completed secondary education, which may have equipped them with the basic skills and knowledge needed to do their jobs. And though they lack the capacity to think critically or to solve problems creatively, their secondary schooling leaves them well prepared to do low-level work such as gathering data, going door to door and sitting behind a desk taking attendance. But that said, they might need more training and instruction on complex concepts that ask for advanced levels of critical thought. Conversely, college graduates may bring with them an education that is more advanced in critical thinking, problem solving, and communication which may add richness and effectiveness to community health efforts. And these scholars will probably do great at those tasks that require a deeper comprehension of nutrition matters like building Problem Trees or data interpretation for strategic planning. They are also more likely to take leadership roles in the BNS network and mentor other scholars and advocate for more audacious approaches to tackling malnutrition because of their educational background. Having these college graduates involved enhances the BNS program's overall competency.

On the other hand, some undergraduates will have been educated to a higher level of scholarship without graduating, and they undoubtedly possess valuable skills and knowledge even without a college degree. They may have a form of practical knowledge and even a degree of training or specialization, but such knowledge can still be useful to community nutrition programs. They can also be equipped to improve their communication, health promotion and use of digital tools, even without formal qualifications. Nevertheless, their lack of education could prevent them from understanding more advanced ideas concerning health and medical sciences.

The length of service of respondents is reflected in Table 4. Among the 68 barangay nutrition scholars, 30 or 44.12 percent are 1-5 years of service; 20 or 29.41 percent are less than 1 year of service; seven (7) or 10.29 percent are 6-10 years of service; six (6) or 8.82 percent are 11-15 years of service and five (5) or 7.35 percent are 16-20 years in service.

This high percentage of BNS who stay in the service for only 1-5 years infers a relatively high turnover rate, or a recent influx of new recruits into the program, which may affect the stability of the organization. While they can bring new perspectives and energy to the program newer members also require further training and back up to help them settle into their new role and learn about the program protocols. If not accompanied by adequate guidance and mentorship, the increasing number of new BNS may overwhelm a program's resources; onboarding and training are continuous efforts needed for any new member to meet established competency levels. On the other side, the data supports that the veteran BNS members provide their full devotion through years of service, and it can be seen through senior scholars with years of servicelike 11-15 years (6 respondent, 8.82 percent) and 16-20 years (5 respondent, 7.35 percent) are fewer. These people probably give the program "institutional knowledge" and stability. They could also coach more recent hires and make contributions to the overall viability of the program (Hewco et al., 2021).

Table 4. Distribution of Respondents According to Length of Service

INDICATOR	FREQUENCY	PERCENTAGE
Less than 1 year of service	20	29.41

1-5 years of service	30	44.12
6-10 years of service	7	10.29
11-15 years of service	6	8.82
16-20 years of service	5	7.35
Total	68	100.00

The barangay nutrition scholars were also asked on their monthly honorarium received. As shown in figure 2, out of 68 respondents, 51 or 75 percent belong to monthly honorarium of more than one thousand pesos and 17 or 25 percent earns five hundred one to one thousand pesos per month.

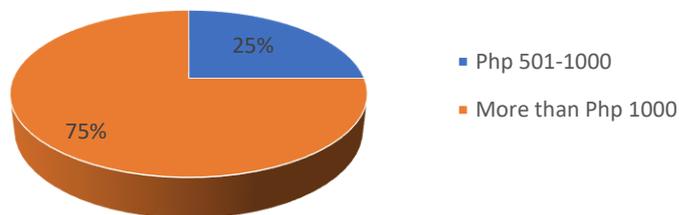


Figure 2. Distribution of Respondents According to Monthly Honorarium

Yet according to the study, 25 percent of the respondents receive the honorarium with a lower monthly amount between five hundred one and one thousand pesos. This discrepancy implies potential inequities in the content and compensation of the BNS program, which would have downstream impacts on morale and retention of scholars. Employees who feel underappreciated or underpaid are clearly less motivated and satisfied with their jobs, which can lead to more turnover or a lack of commitment to program activities. It is also logical to believe that these scholars will not be as motivated to put in more time to improve their abilities or take on more challenging job given the meager income they will receive.

Table 5 indicates that Barangay Nutrition Scholars (BNS) in Nabua, Camarines Sur exhibit varying levels of competence in different aspects of planning within the National Health Nutrition Program. The indicator has an average weighted mean (WM) of 2.79, verbally interpreted as "Competent." The highest competence was observed in assisting the barangay chairperson in organizing or reactivating the Barangay Nutrition Council, with a WM of 3.04 and interpreted as Competent. Suggesting that this task is most comfortably performed by the BNS. Followed by Assist in preparing a budget for barangay nutrition action plan with a WM of 3.01 was ranked 2nd. Planning of nutrition programs, project and activities that will be implemented with a WM of 2.88 was ranked 3rd. 4th was Prepares and updates the master list of beneficiaries with a WM of 2.31. Initiates and assists the Barangay Nutrition Council in the formulation of the Barangay Nutrition Action Plan was ranked 5th. Explain the process of monitoring and evaluation of nutrition intervention with a WM of 2.63 was ranked 6th and the lowest competence was noted in the planning for preparing a nutrition spot map and constructing a problem tree, with a WM of 2.41, indicating this is an area where the BNS feel less confident and competent.

Table 5. Level of Competence of Barangay Nutrition Scholars in Implementing National Health Nutrition Program along Planning.

Indicators	WM	Verbal Interpretation	Rank
1. Assists the barangay chairperson in organizing or reactivation the Barangay Nutrition Council (BNC)	3.04	Competent	1
2. Initiates and assists the Barangay Nutrition Council in the formulating of the Barangay Nutrition Action Plan	2.72	Competent	5
3. Prepares and updates the master list of beneficiaries	2.81	Competent	4
4. Explain the process of monitoring and evaluation of nutrition intervention	2.63	Competent	6
5. Assist in preparing a budget for barangay nutrition action plan	3.01	Competent	2
6. Planning of nutrition programs, project and activities that will be implemented	2.88	Competent	3
7. Planning in preparing a Nutrition spot map and a Construction of Problem Tree	2.41	Moderately Competent	7
Average Weighted Mean	2.79	Competent	

These outcomes suggest that BNS are proficient across all areas of planning processes, but that there are certain areas in which further training and/or support is needed. This high competence indicates that BNS are good in administrative functionalities and able to perform collaborative work like assisting in organizing the Barangay Nutrition Council and budget preparation. However, with the lower competence in planning tasks that require a more technical approach, like the development of nutrition spot maps and the generation of problem trees, there is a case for targeted capacity-building interventions. This gap might challenge the effectiveness of national health nutrition program planning and implementation at the barangay level.

A research by Idriss-Wheeler et al. (2024) supports these conclusions by emphasizing the value of ongoing training and development for community health workers to improve their technical proficiency. The report emphasizes that while administrative competencies are often well-developed through routine operations, technical talents require specialized training and real-world application. Therefore, the successful implementation of the National Health Nutrition Program in Nabua, Camarines Sur, depends on strengthening the BNS's technical planning capabilities through workshops, training sessions, and hands-on experience.

Table 6 presents the level of competence of BNS in terms of coordination aspect in National Health Nutrition Program. These consist of the indicators which were vital for mobilizing resources and coordinating initiatives to meet nutritional targets. As shown in the Table 6, Barangay Nutrition Scholars

in Nabua, Camarines Sur demonstrate a commendable level of competence overall, with a weighted mean (WM) of 3.09, indicating competency. Notably, coordinating in Preparing Family Profile emerges as the highest-ranking task, with a WM of 3.59, suggesting that BNS excel in this area, which is critical for understanding the nutritional needs of families within the barangay.

Table 6. Level of Competence of Barangay Nutrition Scholars in Implementing National Health Nutrition Program along Coordination.

Indicators	WM	Verbal Interpretation	Rank
1. Coordinates meetings of the Barangay Nutrition Council	2.97	Competent	5
2. Facilitates nutrition related meetings	2.84	Competent	7
3. Coordinates implementation of nutrition activities	3.13	Competent	3
4. Refers clients to appropriate service deliveries	3.09	Competent	4
5. Submit minutes of the meeting	2.87	Competent	6
6. Coordinating with the Barangay Nutrition Council and City/Municipal Nutrition Action Officer	3.18	Competent	2
7. Coordinating in preparing a Family Profile	3.59	Competent	1
Average Weighted Mean	3.09	Competent	

Coordinating with Barangay Nutrition Council and City/Municipal Nutrition Action Officer with a WM of 3.18 were ranked 2nd. Coordinates implementation of nutrition activities with a WM of 3.13 was ranked 4th. Ranked 5th was Coordinates meetings of the Barangay Nutrition Council with a WM of 2.97. Ranked 6th was submit minutes of the meeting with a weighted mean of 2.87 and interpreted as competent and facilitates nutrition related meeting with a WM of 2.84 and interpreted as competent was ranked 7th indicating room for improvement in this aspect of coordination.

These findings suggest that BNS are skilled in a range of coordination tasks but there may be opportunities for them to be more effective in other. It is also evident by this performance that BNSs are very competent in tasks that coordinate the implementation of nutrition activities and also forward due clients to services. On the other hand, the less proficient tasks (such as facilitating meetings related) may expose a possible gap in communication and facilitation skills necessary to work effectively with stakeholders.

A study by Kwame & Petrucka (2021) supports these conclusions by emphasizing the value of efficient coordination in community health initiatives and its function in advancing the provision of all-encompassing and integrated services. Their study emphasizes the necessity of organizing activities to incorporate problem-solving skills, effective communication, and teamwork in addition to administrative duties. Funding capacity-building initiatives that enhance coordination abilities, particularly in areas

identified as having lower proficiency, can therefore contribute to the overall success of the National Nutrition Program in Nabua, Camarines Sur

Table 7 shows the level of competence of BNS in terms of advocacy and promotion aspect in National Health Nutrition Program. This compromises the raising of awareness about nutritional issues and community mobilization. The average weighted mean as to advocacy and promotion was 3.08 interpreted as Competent. Based on the ranking Promotion of desirable nutrition and lifestyle behavior got the first on the rank with a weighted mean of 3.28 interpreted as competent. Indicating that BNS are particularly effective in encouraging healthy habits among the community members. Feeding Programs/ Supplementary Feeding with a WM of 3.12 and ranked 2nd. Micronutrient Program with a WM of 3.10 ranked 3rd. Promotion of Sanitary toilet facilities with a WM of 3.04 and ranked 4th. Home and Community Food Production with a WM of 2.99 and ranked 5th. Nutrition Education with a WM of 2.96 and ranked 6th. Ranked 7th interpreted as competence, with a WM of 2.85, is noted in the promotion of safe drinking water supply, suggesting this is a relative weakness in their advocacy efforts.

Table 7. Level of Competence of Barangay Nutrition Scholars in Implementing National Health Nutrition Program along Advocacy and Promotion.

Indicators	WM	Verbal Interpretation	Rank
1. Micronutrient Program	3.10	Competent	3
2. Home and Community Food Production	2.99	Competent	5
3. Feeding Programs/ Supplementary Feeding	3.12	Competent	2
4. Nutrition Education	2.96	Competent	6
5. Promotion of Safe Drinking Water supply	2.85	Competent	7
6. Promotion of Sanitary toilet facilities	3.04	Competent	4
7. Promotion of desirable nutrition and lifestyle behavior	3.28	Competent	1
Average Weighted Mean	3.05	Competent	

These results imply that while the BNS are generally adept at promoting various aspects of nutrition and health, there is a significant need to bolster efforts in promoting safe drinking water. High competence in promoting desirable nutrition and lifestyle behaviors suggests that the BNS are successful in conveying important messages about healthy living, which is crucial for long-term community health. However, the lower competence in promoting safe drinking water indicates a potential gap in their ability to address all critical areas of public health advocacy comprehensively.

A study by Hartzler et al. (2018) supports these conclusions by emphasizing the vital role community health professionals play in promoting all-encompassing public health initiatives. According to the study, while lifestyle promotion and nutrition education are usually well-covered topics, other sometimes overlooked themes, such as the promotion of safe and clean drinking water, are equally important for preventing disease and preserving overall health. More training and resources should be provided to the BNS to increase their ability to promote clean drinking water and other important public health measures, which would in turn increase the effectiveness of the National Nutrition Program in Nabua, Camarines Sur.

Table 8 shows the level of competence along of BNS in implementing national health nutrition program along implementation. These compromise the proactive roles of the BNS in the community and determine the extent of competency in executing nutrition programs.

The average weighted mean of Implementation was 3.21 and was interpreted as Competent. Based on the ranking, monitors weight and height of all children, 0-59 months old together with the barangay health worker under the supervision of midwife/nurse got the first rank with a weighted mean of 3.72 and interpreted as Highly Competent. Provides basic nutrition and health information and counsels mother/caregivers of children whose weight has decreased or have gained weight with a weighted mean of 3.62 ranked 2nd and interpreted as Highly Competent. Conducts or assists in conducting systematic nutrition and health education classes to mothers, especially the pregnant and lactating women with a weighted mean of 3.25 ranked 3rd and interpreted as Competent. Supplementary feeding to the target beneficiaries identified based on weight data with a WM 3.12 ranked 4th Promotes construction and proper use of sanitary toilets, giving priority to households with preschool children with a weighted mean of 2.97 ranked 5th. Ranked 6th was distributes available vegetable seeds and seedlings to target families with a WM of 2.91.

The lowest on the ranking is noted in the distribution of vitamin/mineral supplements, with a WM of 2.88, indicating that this is an area needing improvement. These results indicate that while BNS perform well in basic health monitoring tasks and counseling, which are crucial for the screening, prevention, and treatment of malnutrition, they struggle with resource distribution, that is, their ability to distribute vitamin and mineral supplements. The higher competence in monitoring and counseling reflects that BNS are performing frontline duties that have immediate impacts on child health. On the other hand, lower proficiency in distributing supplements may indicate logistical issues or lack of provisions that could compromise the program's potential to mitigate micronutrient deficiencies.

Table 8. Level of Competence of Barangay Nutrition Scholars in Implementing National Health Nutrition Program along Implementation.

Indicators	WM	Verbal Interpretation	Rank
1. Monitors weight and height of all children, 0-59 months old together with the barangay health worker, under the supervision of midwife/nurse	3.72	Highly Competent	1
2. Provides basic nutrition and health information and counsels mothers/caregivers of children whose weight have decreased or have not gained weight	3.62	Highly Competent	2
3. Distributes available vitamin/mineral supplements	2.88	Competent	7
4. Conducts or assists in conducting systematic nutrition and health education classes to mothers, especially the pregnant and lactating women	3.25	Competent	3

5. Promotes construction and proper use of sanitary toilets, giving priority to households with preschool children	2.97	Competent	5
6. Distributes available vegetable seeds and seedlings to target families	2.91	Competent	6
7. Supplementary feeding to the target beneficiaries identified based on weight data	3.12	Competent	4
Average Weighted Mean	3.21	Competent	

These findings are corroborated by a related study by Yao et al. (2023), which emphasizes the necessity of community health workers' complete support and appropriate training for program implementation effectiveness. Their paper highlights that while monitoring and counseling are often well-executed due to direct interaction between the organization and beneficiaries, tasks involving the distribution of resources may be vulnerable to systemic problems such as inefficient supply chains or inadequate inventory management training. Therefore, in order to improve the National Nutrition Program's overall efficacy in Nabua, Camarines Sur, these gaps must be filled with reliable supply chains, excellent logistics, and adequate training.

As shown in table 9, the average weighted mean to monitoring and evaluation was 3.16 and was interpreted as Competent. Based on the ranking for the competence on the monitoring and evaluation within the Implementation of National Health Nutrition Program, presents that Barangay Nutrition Scholars (BNS) in Nabua, Camarines Sur demonstrate a high level of competence in monitoring nutritional status of 0-59 months with a WM of 3.63. Informs, monitors and conducts follow-up visits to mothers/caregivers of interpreted as competent. Documents and reports accomplishments to the barangay nutrition council was ranked 6th with a WM of 2.91 and the indicator got the lowest competence is observed in monitoring the implementation of the barangay nutrition action plan, with a WM of 2.90, which is still competent but indicates an area for improvement. These findings indicate that while BNS can effectively assess the nutritional status of young children at the community level, they struggle with systematically tracking the implementation of nutrition action plan in its broader aspect.

Table 9. Level of Competence of Barangay Nutrition Scholars in Implementing National Health Nutrition Program along Monitoring and Evaluation

Indicators	WM	Verbal Interpretation	Rank
1. Monitors nutritional status of 0-59 month	3.63	Highly Competent	1
2. Informs, monitors and conducts follow-up visits to mothers/caregivers of beneficiaries and resource persons to attend the nutrition activities	3.41	Competent	2
3. Documents and reports accomplishments to the Barangay Nutrition Council	2.91	Competent	6

4. Prepares Barangay Nutrition Action Plan quarterly accomplishment report	3.09	Competent	4
5. Provides feedback/updates to the Barangay Nutrition Council, City/Municipal Nutrition Action Officer and District/City Nutrition Program Coordinators through meetings	3.15	Competent	3
6. Monitoring implementation of the Barangay Nutrition Action Plan	2.90	Competent	7
7. Determine whether or not the objectives of the Barangay Nutrition Action Plan are achieved or integrated into the barangay	3.03	Competent	5
Average Weighted Mean	3.16	Competent	

The high competence of monitoring children's nutritional status further shows that BNS are well versed with periodic health check-ups and therefore adheres to provide appropriate referral support in timely manner to identified malnourished children. By being less competent in tracking the overall implementation of the action plan, this can indicate potential weaknesses in strategic oversight and management practices that may influence the sustainability and effectiveness of the nutrition program in the long term.

A study by Claro et al. (2024) has confirmed and validated this, highlighting the importance of robust monitoring and evaluation mechanisms in community health initiatives. The authors point out in their study that although direct health monitoring is frequently implemented and done well, evaluating health programs is appropriate and necessitates a methodical and coordinated approach from all stakeholders. The Halohalo Study Society scientists discovered that the lack of effective training BNS received in strategic planning, data management, and program evaluation techniques from the National Nutrition Program resulted in a less successful implementation of the barangay nutrition action plan in the municipality of Nabua, Camarines Sur. As a result, the plan has yet to be fully translated into the local community.

As shown in table 10, the average weighted mean as to documentation and record keeping was 3.11 interpreted as Competent. Taking photos of important activities ranked first with a weighted mean of 3.59 interpreted as Highly Competent. Note referrals of families for services ranked 2nd with a WM of 3.42 interpreted as competent. Record agreements follow through activities and accomplishment ranked 3rd with a WM of 3.12 interpreted as competent. Identify elements and indicators of good practices in an area ranked 4th with a WM of 3.10. Provide database of population to be served ranked as 5th with a WM of 3.0. Prepare minutes of meeting on time ranked 6th with a WM of 2.94 and on the other hand, the lowest competence is in preparing brief write-ups of projects or activities, with a WM of 2.59 interpreted as competent, suggesting this is an area needing significant improvement.

The outcome implies that BNS effectively perform as a means to visually document their work, an essential factor in making visual documents and enhancing transparency, yet they fall short on written documentation tasks. By pointing out that BNS are experts in taking photos, it means that it is critical for their work to capture important moments, and happenings, which can be crucial for reporting and showing the effect of their work. Yet, the comparatively less competence in crafting concise write-ups suggests

that documenting activities and results in written format may be a challenge, limiting thorough reporting and communication with stakeholders.

Table 10. Level of Competence of Barangay Nutrition Scholars in Implementing National Health Nutrition Program along Documentation and Record Keeping.

Indicators	WM	Verbal Interpretation	Rank
1. Prepare minutes of meeting on time	2.94	Competent	6
2. Prepare brief write ups of the project or activity	2.59	Competent	7
3. Provide database of population to be served	3.00	Competent	5
4. Take photos of important activities	3.59	Highly Competent	1
5. Note referrals of families for services	3.43	Competent	2
6. Record agreements follow through activities and accomplishments	3.12	Competent	3
7. Identify elements and indicators of good practices in an area	3.10	Competent	4
Average Weighted Mean	3.11	Competent	

In support of this, Hafner et al. (2022) find that written and visual documentation are important for community health programs. Written documentation is essential for documents like detailed records, needs assessments, evaluations, and work plans, while visual documentation can be quite effective in showing activities, building community buy in, and getting people excited. The National Nutrition Program can be strengthened by giving the BNS further training in report writing and other documentation skills to meet the demand of recording the projects and activities carried out in Nabua, Camarines Sur.

Table 11 shows the relationship between respondents' profiles and their competence in planning for the National Health Nutrition Program in Nabua, Camarines Sur which revealed notable findings. Age emerged as a significant factor ($\chi^2 = 20.14$, $p = 0.0026$), indicating a meaningful association between age and competence level in planning among Barangay Nutrition Scholars (BNS).

Table 11. Profile of the BNS in the Implementation of National Health Nutrition Program in terms of Planning

Indicators	χ^2	P value	Decision	Inference
Age	20.14	0.0026	Reject Ho	Significant
Sex	6.59	0.3605	Accept Ho	Not Significant
Civil Status	15.13	0.0192	Reject Ho	Significant
Educational Attainment	12.91	0.0445	Reject Ho	Significant

Length of Service	17.14	0.0088	Reject Ho	Significant
Monthly Honorarium	11.04	0.0873	Accept Ho	Not Significant
Training	15.71	0.0154	Reject Ho	Significant

This suggests that older scholars may exhibit different levels of proficiency in planning compared to their younger counterparts. Similarly, civil status ($\chi^2 = 15.13, p = 0.0192$), educational attainment ($\chi^2 = 12.91, p = 0.0445$), and length of service ($\chi^2 = 17.14, p = 0.0088$) demonstrated significant relationships with competence in planning, underscoring the influence of personal and professional attributes on the effectiveness of BNS in program planning.

Conversely, variables such as sex ($\chi^2 = 6.59, p = 0.3605$), monthly honorarium ($\chi^2 = 11.04, p = 0.0873$), and training ($\chi^2 = 15.71, p = 0.0154$) did not exhibit a significant relationship with competence in planning. This implies that factors like gender, financial compensation, and participation in training programs may not directly impact the planning abilities of BNS (Dodd et al., 2021). While these factors are important in their own right, they may not be primary determinants of competence in planning for the National Nutrition Program among BNS in Nabua, Camarines Sur.

These results highlight how diverse skill is among BNS, impacted by a confluence of contextual, professional, and personal elements (Kaya Kaçar et al., 2024). While some professional and demographic characteristics seem to be important in determining planning competency, others might not be as important. Comprehending these subtleties is essential for focused interventions and support structures meant to improve BNS's efficiency in organizing and carrying out community-level nutrition initiatives. In Table 12, the analysis on the correlation of the profile of the respondents and how competent they were to coordinate the National Nutrition Health Program in Nabua, Camarines Sur, was likewise informative. Significant relationships were observed between coordination competence of Barangay Nutrition Scholars (BNS) and both age ($\chi^2 = 17.68, p = 0.0071$), civil status ($\chi^2 = 15.32, p = 0.0179$), educational attainment ($\chi^2 = 14.44, p = 0.0251$), and length of service ($\chi^2 = 17.44, p = 0.0078$), Table (2). In fact, it appears from these findings that age, marital status, educational background, and time served in the community, all impact on the effectiveness of BNS managing nutrition programs in the communities where they reside.

Table 12. Profile of the BNS in the Implementation of National Health Nutrition Program in terms of Coordination

Indicators	χ^2	P value	Decision	Inference
Age	17.68	0.0071	Reject Ho	Significant
Sex	9.43	0.1509	Accept Ho	Not Significant
Civil Status	15.32	0.0179	Reject Ho	Significant
Educational Attainment	14.44	0.0251	Reject Ho	Significant
Length of Service	17.44	0.0078	Reject Ho	Significant
Monthly Honorarium	11.25	0.0810	Accept Ho	Not Significant
Training	15.71	0.0154	Reject Ho	Significant

In contrast, variables like sex ($\chi^2 = 9.43, p = 0.1509$), honorarium per month ($\chi^2 = 11.25, p = 0.0810$), and training ($\chi^2 = 15.71, p = 0.0154$) did not show a significant relationship with coordination competence. This suggests that while not necessarily directly affecting their ability to appropriately program for

nutrition, factors such as gender, financial compensation, or participation in training programs are significant components of BNS profiles as well (Bryan et al., 2024). In order to determine the coordinating competency of BNS in Nabua, it is likely that factors other than these factors will have a bigger influence. These results demonstrate the complex nature of BNS competency, with some professional and demographic characteristics having a greater impact on particular program implementation domains (Van Horn et al., 2019). Comprehending these types of dynamics can help guide focused capacity-building initiatives and support systems designed to improve BNS's coordination abilities in supporting the National Nutrition Program at the local level.

Table 13 Reflection on respondent profiles and competence on advocacy and promotion of National Health Nutrition Program in Nabua, Camarines Sur In particular, the age ($\chi^2 = 14.49$, $p = 0.0247$) and length of service ($\chi^2 = 13.50$, $p = 0.0357$) were found to be significant variables associated with certain levels of competence among Barangay Nutrition Scholars (BNS) in advocacy and promotion.

Table 13. Profile of the BNS in the Implementation of National Health Nutrition Program in terms of Advocacy and Promotion

Indicators	χ^2	P value	Decision	Inference
Age	14.49	0.0247	Reject Ho	Significant
Sex	10.07	0.1217	Accept Ho	Not Significant
Civil Status	7.85	0.2494	Accept Ho	Not Significant
Educational Attainment	8.41	0.2095	Accept Ho	Not Significant
Length of Service	13.50	0.0357	Reject Ho	Significant
Monthly Honorarium	8.14	0.2278	Accept Ho	Not Significant
Training	12.54	0.0510	Accept Ho	Not Significant

According to these findings, BNS's ability to effectively advocate for and promote nutrition programs in their communities may be significantly influenced by variables like age and length of service (Ausehus et al., 2023). On the other hand, there was no significant correlation between competence in advocacy and promotion and variables like sex ($\chi^2 = 10.07$, $p = 0.1217$), civil status ($\chi^2 = 7.85$, $p = 0.2494$), educational attainment ($\chi^2 = 8.41$, $p = 0.2095$), monthly honorarium ($\chi^2 = 8.14$, $p = 0.2278$), and training ($\chi^2 = 12.54$, $p = 0.0510$). According to these results, although these professional and demographic characteristics might be crucial in figuring out the characteristics of BNS, they might not have a direct impact on how well they advocate for and support nutrition initiatives at the local level (Candelario, 2023).

These findings highlight how multiple factors interact to affect BNS competency in various program implementation areas. Through acknowledging the importance of age and service duration in advocacy and promotion proficiency (Rodríguez-Monforte et al., 2024), interested parties can customize training and assistance programs to meet particular requirements and improve BNS's ability to promote nutrition programs in their local communities.

Table 14 presents the relationship between respondents' profiles and their capability to implement the National Health Nutrition Program in Nabua, Camarines Sur. There was a significant association between the level of competence of Barangay Nutrition Scholars (BNS) in the program implementation and the variables age ($\chi^2 = 22.14$, $p = 0.0011$), civil status ($\chi^2 = 18.24$, $p = 0.0057$), educational attainment ($\chi^2 = 22.10$, $p = 0.0012$), length of service ($\chi^2 = 20.96$, $p = 0.0019$), and training ($\chi^2 = 16.54$, $p = 0.0111$). It

looks like these age, marital status, education, work experience, and training factors are crucial in determining the BNS action to implement the nutrition programs in their community.

Table 14. Profile of the BNS in the Implementation of National Health Nutrition Program in terms of Implementation

Indicators	χ^2	P value	Decision	Inference
Age	22.14	0.0011	Reject Ho	Significant
Sex	10.50	0.1051	Accept Ho	Not Significant
Civil Status	18.24	0.0057	Reject Ho	Significant
Educational Attainment	22.10	0.0012	Reject Ho	Significant
Length of Service	20.96	0.0019	Reject Ho	Significant
Monthly Honorarium	11.14	0.0841	Accept Ho	Not Significant
Training	16.54	0.0111	Reject Ho	Significant

Competence in program implementation was not significantly associated with variables such as sex ($\chi^2 = 10.50$, $p = 0.1051$) and monthly honorarium ($\chi^2 = 11.14$, $p = 0.0841$). According to this, gender and compensation may be important for some but not all BNS responsibilities, and they are unlikely to have an impact on the BNSs' capacity to provide nutrition programs (Dodd et al., 2021). These findings demonstrate the complexity of BNS competency and point to the necessity of controlling several potential demographic and professional experience categories in order to examine BNS performance throughout program implementation.

Consistent with findings from earlier studies that highlight the importance of these factors in the efficacy of health workers implementing community-based interventions, competence in program implementation was significantly correlated with age, civil status, educational attainment, length of service, and training. Studies have repeatedly shown that these elements are essential to the efficacy and long-term viability of community-based treatments. Shrestha et al. (2019) emphasized that education and training are essential resources that help health professionals get the abilities and know-how required to deliver high-quality services. Longer service has been identified in the public health workforce as a factor in the development of greater experience and institutional knowledge, allowing health workers to better respond to changing community needs and dynamics (Hewco et al., 2021). People with higher educational attainment may have improved critical thinking and problem-solving skills, which are valuable in addressing the complexities of community health programs (Ahmady & Shahbazi, 2024).

The analysis of the relationship between respondent profiles and their competence in monitoring and evaluation within the National Health Nutrition Program in Nabua, Camarines Sur in Table 15 revealed several significant findings. Interestingly, age ($\chi^2 = 18.26$, $p = 0.0056$), educational attainment ($\chi^2 = 14.79$, $p = 0.0220$), length of service ($\chi^2 = 13.39$, $p = 0.0372$) and training ($\chi^2 = 17.39$, $p = 0.0079$) found significant correlation to the competences of the Barangay Nutrition Scholars (BNS) in monitoring and evaluation. These findings indicate that BNS's efficiency in overseeing and assessing nutrition programs in their communities was largely dependent on their age, education, length of service, and training. On the other hand, sex ($\chi^2 = 10.88$, $p = 0.0923$), civil status ($\chi^2 = 8.30$, $p = 0.2167$), and monthly honorarium

($\chi^2 = 9.70, p = 0.1380$) were found to be not significantly related to competence in monitoring and evaluation. The result is that BNSs' capacity to mobilize this component of program implementation may not be directly influenced by demographic factors such as gender, marital status, and financial compensation (Dodd et al., 2021). Each BNS brings a variety of backgrounds to their job, and those factors should be taken into account when evaluating their competency in baseline, monitoring, and evaluation tasks in nutrition programs.

Table 15. Relationship between the Profile and the Level of the Competence along Monitoring and Evaluation of BNS in Implementing National Health Nutrition Program in Nabua, Camarines Sur

Indicators	χ^2	P value	Decision	Inference
Age	18.26	0.0056	Reject Ho	Significant
Sex	10.88	0.0923	Accept Ho	Not Significant
Civil Status	8.30	0.2167	Accept Ho	Not Significant
Educational Attainment	14.79	0.0220	Reject Ho	Significant
Length of Service	13.39	0.0372	Reject Ho	Significant
Monthly Honorarium	9.70	0.1380	Accept Ho	Not Significant
Training	17.39	0.0079	Reject Ho	Significant

The significant associations between age, educational attainment, length of service, and training with competence in monitoring and evaluation align with previous research emphasizing the importance of these factors in determining the effectiveness of health workers in similar roles. Similar with the barangay nutrition scholars, previous research affirmed that higher levels of educational attainment equip health workers with critical analytical and data interpretation skills essential for effective monitoring and evaluation practices. These skills are crucial for assessing program impact, identifying areas for improvement, and making informed decisions to enhance service delivery and health outcomes. Moreover, extensive training and longer periods of service allow health workers to refine their monitoring and evaluation techniques over time.

Age was also regarded as a significant factor in determining monitoring and evaluation competency because older health workers are likely to have had more experience and maturity. They have monitoring and evaluation (M&E) expertise, and they have technical skills that help them handle confusing M&E difficulties including data interpretation and stakeholder participation (Handley et al., 2022). The data obtained from these professional and demographic factors will be crucial for creating training plans and possibilities for professional growth, which will enhance health workers' ability to perform monitoring and assessment duties.

Table 16 presents the relationship between respondent profiles and their competence in documentation and record-keeping within the National Health Nutrition Program in Nabua, Camarines Sur. Significantly, civil status ($\chi^2 = 20.68, p = 0.0021$), training ($\chi^2 = 15.46, p = 0.0169$), educational attainment ($\chi^2 = 20.54, p = 0.0022$), age ($\chi^2 = 23.44, p = 0.0007$), and length of service ($\chi^2 = 21.69, p = 0.0014$) were the factors positively associated with the competence level of Barangay Nutrition Scholars (BNS) regarding documentation and record-keeping. The conclusions indicated that age, marital status, qualification, years of the service, and training of BNS have important effects on accurate documentation & records of pipeline sector to nutrition program.

Table 16. Significant Relationship between the Profile and the Level of the Competence along Documentation and Record Keeping of BNS in Implementing National Health Nutrition Program in Nabua, Camarines Sur

Indicators	χ^2	P value	Decision	Inference
Age	23.44	0.0007	Reject Ho	Significant
Sex	9.21	0.1619	Accept Ho	Not Significant
Civil Status	20.68	0.0021	Reject Ho	Significant
Educational Attainment	20.54	0.0022	Reject Ho	Significant
Length of Service	21.69	0.0014	Reject Ho	Significant
Monthly Honorarium	11.79	0.0669	Accept Ho	Not Significant
Training	15.46	0.0169	Reject Ho	Significant

In contrast, no significant relationship had been found between competence in documentation and record-keeping and the following variables: Sex ($\chi^2 = 9.21, p = 0.1619$), and monthly honorarium ($\chi^2 = 11.79, p = 0.0669$). This seems to suggest that neither gender nor financial compensation affects the effectiveness of BNS in this aspect of program implementation. These findings highlight that competence in these activities may be influenced by different demographic and professional characteristics of BNSs who implement nutrition programs.

These findings from Table 19 highlight compelling association between respondent profiles and competence in documentation and record-keeping within the National Health Nutrition Program in Nabua, Camarines Sur. Age emerged as a significant factor, indicating that older Barangay Nutrition Scholars (BNS) may possess more experience and organizational skills, contributing to their higher competence levels in maintaining accurate records. Similarly, civil status was found to influence competence, possibly reflecting how marital stability can provide BNS with the focus and support necessary for meticulous record-keeping. Educational attainment showed a significant association, reinforcing the role of advanced training in equipping BNS with the analytical abilities needed for precise documentation practices.

4. CONCLUSION AND RECOMMENDATIONS

Conclusions:

1. Majority of the respondents are female, married and with a monthly honorarium more than P 1,000.00. most are 38-48 years old, high school graduate, and have 1-5 years of service.
2. The respondents are competent along implementation, monitoring and evaluation, documentation and record keeping, coordination, advocacy and promotion and planning.
3. There is a significant relationship between the profile of the respondents (including age, sex, civil status, educational attainment, length of service, monthly honorarium, and training) and the level of competence of BNS across various aspects of the National Health Nutrition Program.
4. There is a proposed plan that can improve the competence of Barangay Nutrition Scholars in Implementing National Health Nutrition Program.

Recommendations:

1. Continuously improve the practice of BNS and ensure that they can go for other workshops, seminars or formal courses for offence in nutrition, public health, or other community development. Emphasize the importance of continuing education and suggest BNS to seek further educational opportunities in order to advance their career within specific fields of interest in nutrition.

2. Design targeted training and capacity-building programs for BNS and implement them, focusing on the specific areas of need identified in the study (e.g., program planning, coordination, monitoring, and documentation). Tailored with the diversity of their educational stage, their experiences, their backgrounds and their learning styles, those initiatives should maximize their efficiency and involvement.
3. Facilitate collaboration and coordination between BNS, health care professionals, local government units, and community stakeholders to enhance the delivery of nutrition services. Foster partnerships with schools, non-governmental organizations, and private sector entities to leverage resources, expertise, and networks in support of nutrition programming and advocacy efforts.
4. Monitoring and evaluation systems should be strengthened, with systematic assessments of performance and impact of BNS in the implementation of the National Health Nutrition Program. Include regular feedback mechanisms, data collection tools, and performance indicators to monitor progress, identify areas for improvement, and evaluate outcomes linked to nutrition service delivery and community health outcomes.
5. Develop platforms for sharing knowledge among BNS and peer learning opportunities to facilitate the sharing of best practices, lessons learned, and innovative approaches to nutrition programming. Support the creation of networks such as support groups, mentoring systems, and online communities where BNS can build connections, partnerships, and collaborative solutions.
6. Support policies and mechanisms for allocating resources that prioritize hiring, retaining, and supporting BNS in LGUs. Advocate for more funds for nutrition programs, including honorarium and training for BNS, and incentives to keep them motivated and active in their work. For honoraria, training, and incentives to motivate and sustain the engagement of BNS in their roles.
7. Perform periodic program reviews and assessments of the relevance, effectiveness, and impact of nutrition interventions by BNS. Ensure that evidence-based findings are used to guide program adaptation, policy development and strategy development processes to ensure nutrition programs remain responsive to the changing needs and priorities of the communities they serve.

5. REFERENCES

1. All Ahmady, S., & Shahbazi, S. (2020). Impact of Social Problem-Solving Training on Critical Thinking and Decision Making of Nursing Students. *BMC Nursing*, 19, 94. <https://doi.org/10.1186/s12912-020-00487-x>
2. Aileen Cerrudo. 2019. Better Benefits for Brgy. Health Workers, Nutrition Scholars—Sen. Ejercito. March 29, 2019. Retrieved December 24, 2019 from <https://untvweb.com/news/better-benefits-for-brgy-health-workers-nutrition-scholars-sen-ejercito/>
3. Alcantara, M. A. (2024). The Impact of Nutritional School Based Feeding Program on Academic Achievement of Selected Elementary Learners in West Philippines. *jurnal.yayasannurulyakin.sch.id*. <https://doi.org/10.57092/ijetz.v3i1.153>
4. Alderwick, H., Hutchings, A., Briggs, A., & Mays, N. (2021). The Impacts of Collaboration Between Local Health Care and Non-Health Care Organizations and Factors Shaping How They Work: A systematic review of reviews. *BMC Public Health*, 21(1), 753. <https://doi.org/10.1186/s12889-021-10630-1>
5. Al-Jawaldeh, A., Matbouli, D., Diab, S., Taktouk, M., Hojeij, L., Naalbandian, S., & Nasreddine, L. (2023). School-Based Nutrition Programs in the Eastern Mediterranean Region: A Systematic review.

- International Journal of Environmental Research and Public Health, 20(22), 7047. <https://doi.org/10.3390/ijerph20227047>
6. Alice Petepri, 2021. From Novice to Expert. Retrieved March 28, 2023 from <http://www.nursing-theory.org/theories-and-models/from-novice-to-expert.php>.
 7. Alice Petepri, 2021. King's Theory of Goal Attainment. Retrieved January 28, 2023 from <https://nursing-theory.org/theories-and-models/king-theory-of-goal-attainment.php>
 8. Alshammari, M. H., & Alenezi, A. (2023). Nursing Workforce Competencies and Job Satisfaction: The Role of Technology Integration, Self-Efficacy, Social Support, and Prior Experience. *BMC Nursing*, 22(1), 308. <https://doi.org/10.1186/s12912-023-01474-8>
 9. Angelo Gonzalo, 2019. Imogene King: Theory of Goal Attainment. Retrieved January 28, 2020 from <https://nurseslabs.com/imogene-m-kings-theory-goal-attainment/>
 10. Ausenhus, C., Gold, J. M., Perry, C. K., Kozak, A. T., Wang, M. L., Jang, S. H., Leong, J., Rodriguez, E., Duggan, C., & Ko, L. K. (2023). Factors Impacting Implementation of Nutrition and Physical Activity Policies in Rural Schools. *BMC Public Health*, 23(1), 308. <https://doi.org/10.1186/s12889-023-15176-y>
 11. Brandon Rafus, 2023. Community Health Workers: A Public Health Business Case. Retrieved February 28, 2023 from <http://d-scholarship.pitt.edu/27536/>
 12. Bryan, E., Alvi, M., Huyer, S., & Ringler, C. (2024). Addressing Gender Inequalities and Strengthening Women's Agency to Create more Climate-Resilient and Sustainable Food Systems. *Global Food Security*, 40, 100731. <https://doi.org/10.1016/j.gfs.2023.100731>
 13. Cielo Katrina M. Mabalot Category: Region 9 Published: 13 January 2021 AA VI Barangay Nutrition Scholar Program <https://www.nnc.gov.ph>
 14. Candelario, C. M. C. (2023). Assessing the Progress of the Philippine Plan of Action for Nutrition from 1974 to 2022: A Narrative Review. *Food and Nutrition Bulletin*, 44(3), 207-220. <https://doi.org/10.1177/03795721231192742>
 15. Dodd, W., Kipp, A., Nicholson, B., Lau, L. L., Little, M., Walley, J., & Wei, X. (2021). Governance of Community Health Worker Programs in a Decentralized Health System: A Qualitative Study in the Philippines. *BMC Health Services Research*, 21(1), 451. <https://doi.org/10.1186/s12913-021-06452-x>
 16. Dorado, J. B., Azaña, G. P., Viajar, R. V., Ramirez, M. a. R. M., Ferrer, E., Buyco, N. G., Aguila, D. V., & Capanzana, M. (2020). Assessing School-Lunch Feeding and Nutrition Education Strategy for Healthier Kids in Selected Philippine Public Schools. *Nutrition and Health*, 26(3), 231-242. <https://doi.org/10.1177/0260106020930466>
 17. Endrina-Ignacio, M. S. (2019). Assessment of Barangay Nutrition Program Implementation in Selected municipalities in Ifugao, Bulacan and Siquijor: Community Partners' perspectives. *Acta Medica Philippina*, 48(3). <https://doi.org/10.47895/amp.v48i3.1123>
 18. Engel, K., & Ruder, E. H. (2020). Fruit and Vegetable Incentive Programs for Supplemental Nutrition Assistance Program (SNAP) Participants: A Scoping Review of Program Structure. *Nutrients*, 12(6), 1676. <https://doi.org/10.3390/nu12061676>
 19. Garritty, C., Gartlehner, G., Nussbaumer-Streit, B., King, V., Hamel, C., Kamel, C., Affengruber, L., & Stevens, A. (2021). Cochrane Rapid Reviews Methods Group Offers Evidence-Informed Guidance to Conduct Rapid Reviews. *Journal of Clinical Epidemiology*, 130, 13-22. <https://doi.org/10.1016/j.jclinepi.2020.10.007>

20. Garcia, L. (2021). Review of the Barangay Nutrition Scholars Program (BNSP) and PD 1569, volume I: final report. <https://agris.fao.org>
21. Gariel Pabico Lalu, 2019. Robredo: LGUs' Best Healthcare Practices May Become State Policies. May 29, 2019. Retrieved from <https://newsinfo.inquirer.net>
22. Handley, F., Bunn, F., Dunn, C., Hill, C., & Goodman, C. (2022). Effectiveness and Sustainability of Volunteering with Older People Living in Care Homes: A Mixed Methods Systematic Review. *Health and Social Care in the Community*, 30(3), 836–855. <https://doi.org/10.1111/hsc.13576>
23. Harries, M. D., Xu, N., Bertenthal, M. S., Luna, V., Akel, M. J., & Volerman, A. (2023). Community Health Workers in Schools: A Systematic Review. *Academic pediatrics*, 23(1), 14–23. <https://doi.org/10.1016/j.acap.2022.08.015>
24. Health and Safety Executive. (2023). May 02, 2023 <https://www.hse.gov.uk>
25. Hewko, S., OyeseGUN, A., Clow, S., & VanLeeuwen, C. (2021). High Turnover in Clinical Dietetics: A Qualitative Analysis. *BMC Health Services Research*, 21(1), 25. <https://doi.org/10.1186/s12913-020-06008-5>
26. Jabeen Begum, MD. (2024). WebMD Editorial Contributor, Shawna Seed. February 20, 2024 <https://www.webmd.com/balance/what-is-self-efficacy>
27. Jensen, U. T., & Thomsen, M. K. (2022). Judgment of Volunteer Competence among Service Professionals: Stereotypes or Skills? *Public Administration Review*, 82(2), 225–236. <https://doi.org/10.1111/puar.13460>
28. Jones, R., Haardörfer, R., Ramakrishnan, U., Yount, K. M., Miedema, S., & Girard, A. W. (2019). Women's Empowerment and Child Nutrition: The Role of Intrinsic Agency. *SSM - Population Health*, 9, 100475. <https://doi.org/10.1016/j.ssmph.2019.100475>
29. Julianne Suarez, 2019. Councilor Joselle Villafuerte: Mandatory age for BHWs to be Raised to 65 years old. September 4, 2019. Retrieved December 18, 2019 from <https://mindanaotimes.com.ph>
30. Kaya Kaçar, H., Kaçar, Ö. F., & McCullough, F. (2024). Nutrition Messaging by Healthcare Students: A Mixed-Methods Study Exploring Social Media Usage and Digital Competence. *Nutrients*, 16(10), 1440. <https://doi.org/10.3390/nu16101440>
31. Kumar, S., Sándor, J. Z., Biró, N., Gyalog, G., Sinha, A. K., & De Boeck, G. (2022). Does Nutritional History Impact on Future Performance and Utilization of Plant Based Diet in Common Carp? *Aquaculture*, 551, 737935. <https://doi.org/10.1016/j.aquaculture.2022.737935>
32. Labordo, N. A. S. (2021). Competencies and Values of Barangay Nutrition Scholars in Eastern Visayas: Basis for Program Development. *Journal Healthcare Treatment Development*, 1(02), 1–11. <https://doi.org/10.55529/jhtd.12.1.11>
33. Labordo, N. A. S. (2024). Competencies and Values of Barangay Nutrition Scholars in Eastern Visayas: Basis for Program Development. *Psychology and Education: A Multidisciplinary Journal*. Volume: 27 Issue 3 Pages: 349-371. <https://scimatic.org>
34. Lassi, Z. S., Rind, F., Irfan, O., Hadi, R., Das, J. K., & Bhutta, Z. A. (2020). Impact of Infant and Young Child Feeding (IYCF) Nutrition Interventions on Breastfeeding Practices, Growth and mortality in Low- and Middle-Income Countries: Systematic review. *Nutrients*, 12(3), 722. <https://doi.org/10.3390/nu12030722>
35. Latif, J., Dabbous, M., Weekes, C. E., & Baldwin, C. (2021). The Effectiveness of Trained Volunteer Delivered Interventions in Adults at Risk of Malnutrition: A Systematic Review and Meta-Analysis. *Clinical Nutrition*, 40(3), 710–727. <https://doi.org/10.1016/j.clnu.2020.06.008>

36. Lim, S., Cox, N., Tan, Q. Y., Ibrahim, K., & Roberts, H. C. (2020). Volunteer-Led Physical Activity Interventions to Improve Health Outcomes for Community-Dwelling Older People: A Systematic Review. *Aging Clinical and Experimental Research*, 33(4), 843–853. <https://doi.org/10.1007/s40520-020-01556-6>
37. Malan, H., Watson, T. D., Slusser, W., Glik, D. C., Rowat, A. C., & Prelip, M. (2020). Challenges, Opportunities, and Motivators for Developing and Applying Food Literacy in a University Setting: A Qualitative Study. *Journal of the Academy of Nutrition and Dietetics*, 120(1), 33–44. <https://doi.org/10.1016/j.jand.2019.06.003>
38. Mariel Celine Serquiña, GMA Integrated News (2024). UP Manila, NNC Crafting Handbook to Address PH Malnutrition. <https://www.gmanetwork.com>
39. Martha Raile Alligood. (2021). Patricia Benner: From Novice to Expert: Excellence and Power in Clinical Nursing Practice. *Nursing Theorists and Their Work*, Ninth edition, Elsevier Publishing Company, page 171.
40. Melanie McEwan & Evelyn Wills, 2019. Theory Evaluation Paper Patricia Benner's Novice to Expert Nurse Theory. Retrieved February 18, 2020 from <https://www.tutorialsmagnet.com>
41. Mirasol, X. P., & Gordoncillo, N. P. (2023). Factors Correlated with the Competency of Barangay Nutrition Scholars in Cabuyao, Laguna in the Implementation of the Family MUAC Approach. *AgEcon Search*. <https://doi.org/10.22004/ag.econ.339036>
42. Mlambo, M., Silén, C., & McGrath, C. (2021). Lifelong Learning and Nurses' Continuing Professional Development: A Metasynthesis of the Literature. *BMC Nursing*, 20, 62. <https://doi.org/10.1186/s12912-021-00579-2>
43. Morelli, C., Avolio, E., Galluccio, A., Caparello, G., Manes, E., Ferraro, S., Caruso, A., De Rose, D., Barone, I., Adornetto, C., Greco, G., Catalano, S., Andò, S., Sisci, D., Giordano, C., & Bonofiglio, D. (2021). Nutrition Education Program and Physical Activity Improve the Adherence to the Mediterranean Diet: Impact on Inflammatory Biomarker Levels in Healthy Adolescents from the DIMENU Longitudinal Study. *Frontiers in Nutrition*, 8. <https://doi.org/10.3389/fnut.2021.685247>
44. Mousa, T. Y., & Freeland-Graves, J. H. (2019). Motivations for Volunteers in Food Rescue Nutrition. *Public Health*, 149, 113–119. <https://doi.org/10.1016/j.puhe.2017.04.004>
45. National Nutrition Council (NNC), 2022. Barangay Nutrition Scholar (BNS) Program. Retrieved July 26, 2022 from <https://www.nnc.gov.ph/plans-and-programs/barangay-nutrition-scholar-bns-program>
46. NSW Health - NaMO WOW Project Tool. (2021). Benner's Stages of Clinical Competence. Retrieved from: <https://www.health.nsw.gov.au>
47. Okunogbe, A., Nugent, R., Spencer, G., Powis, J., Ralston, J., & Wilding, J. (2022). Economic Impacts of Overweight and Obesity: Current and Future Estimates for 161 Countries. *BMJ Global Health*, 7(9), e009773. <https://doi.org/10.1136/bmjgh-2022-009773>
48. Owusu, B., Bivins, B., Marseille, B. R., & Baptiste, D. L. (2023). Aging in Place: Programs, Challenges and Opportunities for Promoting Healthy Aging for Older Adults. *Nursing Open*, 10(9), 5784-5786. <https://doi.org/10.1002/nop2.1872>
49. Philippine National Volunteer Service Coordinating Agency. (2020). Volunteers for Healthier Children: The Barangay Nutrition Scholars. July 17, 2020 Program Officer, Volunteerism for Development Communication and Advocacy Program, Philippine National Volunteer Service Coordinating Agency. <https://www.pnvsca.gov.ph/?p=583>

50. Potter, M. H. (2021). Social Support and Divorce among American Couples. *Journal of Family Issues*, 42(1), 88-109. <https://doi.org/10.1177/0192513X20916830>
51. Querri, A., Ohkado, A., Kawatsu, L., Bermejo, J., Vianzon, A., Recidoro, M. J., & Medina, A. G. (2020). Assessment of the Role of Community Health Volunteers in Delivering Primary Health Care in Manila, the Philippines. *J-stage*, 35(1), 15–25. <https://doi.org/10.11197/jaih.35.15>
52. Richard Lomax & Jian Li. 2020. Correlational Research. Retrieved from: www.education.com.
53. Rivera, A. K. B., Bullecer, E. R., & Latorre, A. a. E. (2020). Factors Associated with Anemia among Selected Women of Reproductive Age in Tondo, Manila, Philippines. *Acta Medica Philippina*, 54(5). <https://doi.org/10.47895/amp.v54i5.877>
54. Rodríguez-Monforte, M., Fernández-Jané, C., Bracha, M., Bartoszewska, A., Kozakiewicz, M., Leclerc, M., Nimani, E., Soanvaara, P., Järvinen, S., Van Sherpenseel, M., van der Velde, M., Alves-Lopes, A., Handgraaf, M., Grüneberg, C., & Carrillo-Alvarez, E. (2024). Defining a Competency Framework for Health and Social Professionals to Promote Healthy Aging throughout the Lifespan: An International Delphi Study. *Advances in Health Sciences Education*. <https://doi.org/10.1007/s10459-024-10316-4>
55. Rongavilla, E., Dorado, J. B., Caraig, G., Viajar, R. V., Azaña, G., Ferrer, E., Domiquel, D., Ygaña, J., & Capanzana, M. (2021). Science and Technology Intervention Strategy on Complementary Feeding to Improve the Nutritional Status of Young Children in Two Yolanda Disasters Areas in the Philippines: Evidences from the Grounds. *The Philippine Journal of Science*, 150(3). <https://doi.org/10.56899/150.03.15>
56. Sheehan, J., Laver, K., Bhojti, A., Rahja, M., Usherwood, T., Clemson, L., & Lannin, N. A. (2021). Methods and Effectiveness of Communication Between Hospital Allied Health and Primary Care Practitioners: A systematic narrative review. *Journal of Multidisciplinary Healthcare*, 14, 493–511. <https://doi.org/10.2147/JMDH.S295549>
57. Shrestha, R. M., Ghimire, M., Shakya, P., Ayer, R., Dhital R., & Jimba, M. (2019). School Health and Nutrition Program Implementation, Impact, and Challenges in Schools of Nepal: Stakeholders' Perceptions. *Tropical Medicine and Health*, 47, 32. <https://doi.org/10.1186/s41182-019-0159-4>
58. Sibuea, Z. M., Sulastiana, M., & Fitriana, E. (2024). Factors Affecting the Quality of Work Life among Nurses: A Systematic Review. *Journal of Multidisciplinary Healthcare*, 17, 491–503. <https://doi.org/10.2147/JMDH.S446459>
59. Talavera, M. T. M., Bustos, A. R., & Rebanco, C. M. (2020). Knowledge, attitude and practices of nutrition workers on climate change in Laguna, Batangas and Cavite provinces, Philippines. *Journal of Environmental Science and Management*, 23(2), 19–28. https://doi.org/10.47125/jesam/2020_2/03
60. Technical Education and Skills Development Authority (2022). Human Health/Health Care Sector: Community Nutrition Services NC II. Community Nutrition Services NC II – HHCCNS222 Promulgated (05/2022) <https://www.tesda.gov.ph/>
61. Vahedian-Shahroodi, M., Tehrani, H., RobotSarpoooshi, D., Aval, M. G. –, Jafari, A., & Alizadeh-Siuki, H. (2019). The Impact of Health Education on Nutritional Behaviors in Female Students: An Application of Health Belief Model. *International Journal of Health Promotion and Education*, 59(2), 70–82. <https://doi.org/10.1080/14635240.2019.1696219>
62. Van Horn, L., Lenders, C. M., Pratt, C. A., Beech, B., Carney, P. A., Dietz, W., DiMaria- Ghalili, R., Harlan, T., Hash, R., Kohlmeier, M., Kolasa, K., Krebs, N. F., Kushner, R. F., Lieh-Lai, M., Lindsley, J., Meacham, S., Nicastro, H., Nowson, C., Palmer, C., Paniagua, M., ... Lynch, C. (2019). Advancing

- Nutrition Education, Training, and Research for Medical Students, Residents, Fellows, Attending Physicians, and other Clinicians: Building Competencies and Interdisciplinary Coordination. *Advances in Nutrition*, 10(6), 1181–1200. <https://doi.org/10.1093/a>
63. Viajar, R. V., Dorado, J. B., Rongavilla, E. O., Caraig, G. S., & Gulay, J. J. S. (2022). Monitoring the implementation of nutrition intervention at the local level. *Evaluation and Program Planning*, 91, 102047. <https://doi.org/10.1016/j.evalprogplan.2022.102047>
64. Viajar, R. V., Dorado, J. B., Azaña, G. P., Ibarra, H. A., Ferrer, E., & Capanzana, M. (2020). Process evaluation of nutrition intervention strategy in a local Philippine setting. *Journal of Primary Care & Community Health*, 11, 215013272091540. <https://doi.org/10.1177/2150132720915407>
65. Villar, J. Y. M. & E. (2020). It Takes a Village to Raise a Child. Impact Evaluation of the Training for Volunteers in Health and the Nutritional Recovery Cycles in West Guatemala. ideas.repec.org. <https://ideas.repec.org>
66. Vivienne Forsythe, Rania Sharawy, Selwa Sorkatti, Salma Awad Albalula, Eman Hassan, Hedwig Deconninck, Diane De Bernardo, and Ali Nasar El Badawi. (2021). Community Outreach for CMAM in Sudan: A Review of Experience and Development of a Strategy. Retrieved from <http://www.cmamforum.org>.
67. Wegmüller, R., Bentil, H., Wirth, J. P., Petry, N., Tanumihardjo, S. A., Allen, L. H., Williams, T. N., Selenje, L., Mahama, A. B., Amoafu, E. F., Steiner-Asiedu, M., Adu-Afarwuah, S., & Rohner, F. (2020). Anemia, Micronutrient Deficiencies, Malaria, Hemoglobinopathies and Malnutrition in Young Children and Non-Pregnant Women in Ghana: Findings from a National Survey. *PloS One*, 15(1), e0228258. <https://doi.org/10.1371/journal.pone.0228258>
68. World Health Organization. (2024). March 1, 2024 <https://www.who.int/news-room/questions-and-answers/item/malnutrition>
69. Tingvold, L., & Munkejord, M. C. (2021). Shared Goals, Communication and Mutual Respect in Multicultural Staff Teams: A Relational Coordination Perspective. *Nursing open*, 8(2), 957–965. <https://doi.org/10.1002/nop2.704>