

Effectiveness Of Home Visits by Public Health Workers in Maternal and Child Health in Naga City

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RESEARCH ARTICLE

Abstract

This study aimed to assess the effectiveness of home visits conducted by public health workers (PHW), specifically public health nurses and midwives, in promoting maternal and child health in Naga City. The study utilized a descriptive research design with 45 purposively selected PHW (22 midwives and 23 nurses) as respondents. The majority of the 45 respondents were female (91.1%), aged 28-57 years old, and had been serving for 1-10 years. Most of them (33.3%) served up to 1,000 families, while only a small percentage served more than 3,000 families. Only one respondent fell within the youngest age group of 18-27. A survey questionnaire was used as the primary research instrument, which contained three parts: the respondents' profile, the effectiveness of home visits on maternal health, and the effectiveness of home visits on child health outcomes. The gathered data were analyzed using descriptive statistics, and the results showed that home visits by public health workers are perceived to be effective in improving maternal and child health outcomes across various domains. However, there is still room for improvement in addressing maternal mental health issues economic needs, and reducing delays in seeking medical care. The researcher proposed a needs assessment nursing intervention to identify the specific healthcare needs of Naga City women, improve the delivery of home visits by Public Health Nurses and Midwives, and eventually enhance maternal and child health outcomes in Naga City.

Keywords: Home Visits, Maternal and Child Health, Public Health Workers

DOI: <http://doi.org/10.52631/jemds.v3i2.209>

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Submitted 18 January 2023

Revised 19 March 2023

Accepted 25 May 2023

Citation
Licup-Periña, L. M. (2023).
Effectiveness Of Home Visits
by Public Health Workers in
Maternal and Child Health in
Naga City. *Journal of
Education, Management and
Development Studies*. 3(2).
48-63. doi:
10.52631/jemds.v3i2.209

1 INTRODUCTION

The foreign literature on home visits' effectiveness for maternal and child health outcomes offers a nuanced perspective. Coster, Watkins, and Norman (2018) shed light on the complexities of assessing nurse-led home visiting programs' societal benefits and cost-effectiveness, particularly in low- and middle-income countries where data limitations persist. Bower, Nimer, West, and Gross (2020) highlighted the intricate nature of parent involvement in such programs, acknowledging various factors like parent characteristics and the relationship quality with home visitors, though yielding inconsistent findings. Gubbels, Van Der Put, Stams, Prinzie, and Assink (2021) showed optimism by demonstrating the potential of nurse home visits in reducing child maltreatment, particularly when specific program components and techniques are meticulously implemented. Molloy, Beatson, Harrop, Perini, and Goldfeld (2021) reinforced this support by identifying sustained nurse home visiting programs as beneficial for disadvantaged families, albeit with

unfavorable outcomes. Lastly, [Janmohamed, Sohani, Lassi, and Bhutta \(2020\)](#) accentuated the positive influence of community health worker home visits and mother/peer group platforms on nutrition outcomes in low and middle-income countries, emphasizing the significance of interpersonal community-based approaches. These collective studies highlight the promise of home visiting programs while recognizing the intricacies and variations in their effectiveness, offering valuable insights for enhancing their impact on maternal and child health outcomes.

Selected foreign studies provide valuable insights into the effectiveness of home-visiting programs targeting maternal and child health outcomes. [Leirbakk et al. \(2018\)](#) Norwegian "New Mothers" program emphasized the integration of home visits within the existing healthcare service, focusing on strengths and support, aligning with the idea of leveraging home visits to enhance maternal and child well-being. [Kliem and Sandner \(2021\)](#) German ProKind program drew parallels with the US Nurse-Family Partnership, showcasing the lasting positive effects of home visiting on child development, maternal mental health, and life satisfaction, reinforcing the potential for home visits as an effective public health intervention. [Goldfeld et al. \(2021\)](#) Australian study highlighted the enduring impact of Nurse Home visits on maternal mental health, suggesting that such interventions can lead to sustained improvements after program completion. [Le Roux et al. \(2020\)](#) research in the Eastern Cape region underscored the mixed but significant effects of community health worker home visits on maternal and child health outcomes, with implications for the need to tailor home visiting approaches to rural contexts. Lastly, [Robling et al. \(2022\)](#) evaluation of the Family Nurse Partnership program in England shed light on the nuanced outcomes of home visiting, emphasizing potential gains in child development and educational outcomes. These foreign studies collectively contribute to understanding home visits' multifaceted impact on maternal and child health, encompassing strengths-based approaches, long-term benefits, and the importance of context-specific adaptations.

The literature in the Philippines reflects a multifaceted approach to addressing maternal and child health. WHO Philippines underscored the importance of community-level initiatives, exemplified by the "Reaching Every Purok" strategy in rural areas, which places a premium on house-to-house visits, education, and essential services to enhance maternal and newborn health ([Reaching every community with maternal and newborn health education in Maco, 2018](#)). The Republic Act 11148, or the First 1000 Days Act, accentuates the roles of frontline workers, particularly Barangay Health Workers (BHWs), in delivering critical antenatal and nutrition-related services through home visits ([Fedilo, 2021](#)). [Austria \(2023\)](#) article emphasized the pressing issue of healthcare worker migration and the government's endeavors to retain skilled professionals, underscoring the need for healthcare human resource management. Ronin Emergency Medical Services ([CNN Philippines Staff, n.d.](#)) served as a local response to the healthcare challenges posed by the COVID-19 pandemic, with home-based medical services addressing the surge in hospital admissions. Lastly, [Ramirez \(2023\)](#) work stressed collaborative efforts between the Department of Health and the World Health Organization, emphasizing the progress of the Subnational Initiative in enhancing maternal, child, and adolescent health through community-linked healthcare providers and improved accountability. These local understandings of the current situation of home visits collectively exemplify a comprehensive approach to maternal and child health, encompassing community engagement, policy frameworks, healthcare worker retention, pandemic responses, and international collaborations.

Meanwhile, local studies offer valuable insights and context relevant to the study investigating the effectiveness of home visits on maternal and child health outcomes. [Mallari et al. \(2020\)](#) and [Querri et al. \(2020\)](#) illuminated the roles and challenges faced by community health workers (CHWs) like Barangay Health Workers (BHWs) in the Philippines, emphasizing factors such as motivation, resource support, and human resource shortages, which can directly impact the success of home visit programs. [Ngaya-an, De Torres, Tejero, and Pacquiao \(2021\)](#) review of home-visiting programs reinforced the positive impact of such interventions on various aspects of maternal and child health, providing a broader perspective on the potential outcomes of home visits. [Maravilla et al. \(2023\)](#) study on pandemic-related disruptions in healthcare services highlighted the need for adaptable strategies, which is pertinent when considering the impact of external factors on home visit programs. Additionally, [Ngaya-an, De Torres, Tejero, and Fowler](#)

(2020) exploration of home visiting's significance and Mamauag et al. (2021) cultural adaptation efforts contributed to understanding the context-specific nuances of home visits, emphasizing their accessibility, cultural unity, and potential for empowerment. These studies collectively offer insights into the motivations, challenges, and outcomes associated with home visits in the Philippines, contributing to a more comprehensive understanding of their effectiveness in improving maternal and child health outcomes.

Finally, the legal framework concerning home visits conducted by public healthcare professionals in Naga City, Camarines Sur, Philippines, assumes a critical role in framing the rationale for this study on the effectiveness of home visits in maternal and child health. Within the Philippines, home visits have been a historical tool for disseminating public health initiatives, primarily carried out by community health workers (CHWs), specifically Barangay Health Workers (BHWs). The introduction of the Department of Health's Administrative Order 2008-0029 in 2009 marked a systematic approach to delivering maternal, newborn, child health, and nutrition (MNCHN) services through home visits. Notably, Naga City only adopted this directive in 2014. It is worth highlighting that, despite these initiatives, a comprehensive home visiting program has yet to be fully realized, as defined in this study. The impetus for this investigation is further accentuated by the legal framework surrounding home visits, notably, Republic Act 11148, which underscores the pivotal role of frontline workers in providing health and nutrition services during the first 1000 days of life (Fedilo, 2021). This legislation recognizes the significance of home visits, emphasizing their importance in reaching women residing in remote areas. However, it also acknowledges the imperative to fortify home visit programs, enhance coordination among frontline workers, and ensure the effective delivery of services. This legal context forms the foundation for exploring the effectiveness of home visits in advancing maternal and child health outcomes in Naga City, where the formal implementation of such programs remains relatively recent and requires additional evaluation and refinement.

2 METHODS

This study employed a descriptive research design to determine the perception of Public Health Workers (PHWs) in Naga City on the effectiveness of home visits in promoting maternal and child health. The design allowed the researcher to interpret the respondents' experiences without regard to any causal relationships or hypotheses. The data collected and assessed helped identify important concepts about the situation being addressed. Also, this could effectively help generate ideas that future researchers can address using more rigorous designs. Most importantly, the method should immediately address the issues found by crafting an intervention intended to be used by the stakeholders involved.

Public Health Nurses (PHNs) and Midwives (PHMs) served as the primary respondents for this study. There are only two criteria for selection: a) the respondent must be employed by any public health organization from the year 2020, and b) the respondent must be performing home visits. The purposive sampling allowed for a more robust investigation of this small population. Table 1 shows the distribution of the respondents of the study. Overall, twenty-two (22) Public Health Midwives and twenty-three (23) Public Health Nurses participated in the study.

Table 1. Distribution of Respondents N=45

Public Health Worker Category	f	Percent
Midwives	22	48.89
Nurses	23	51.11
Total	45	100

This descriptive study utilized a survey questionnaire as the primary research instrument. The survey contained three parts. The first part consists of the profile of the respondents as to age, sex, length of service, and number of families presently served. The statements from the second

and third parts of the questionnaire came from various literature and studies collated. Some additional sources include the following: Rudick et al. (2020), Nygren, Green, Winters, and Rockhill (2018), and Rosanbalm and Murray (2017).

The second part consists of a series of statements about the effectiveness of home visits on maternal health. Four (4) variables containing five (5) statements each are to be rated by the respondents. These four maternal health outcome variables are parenting skills, maternal mental health, socioeconomic situation, and health service utilization. All statements were gathered from various literature and studies selected by the researcher.

The third and final part of the survey contains four (4) variables with five (5) statements each. It concerns the effectiveness of home visits on child health outcomes. The final two parts used a 5-point Likert scale of frequency. The five-point Likert scale shown in Table 2 used to interpret the weighted means

Table 2. 5-point Likert scale of frequency

Scale	Interval	Verbal Interpretation
1	0.00 – 1.20	Never
2	1.21 – 2.40	Rarely
3	2.41 – 3.60	Sometimes
4	3.61 – 4.80	Often
5	4.81 – 5.00	Always

The questionnaires were presented to experts to validate and maintain quality. A test was conducted on a few samples of respondents to draft the questionnaire, and the final version was based on the test results, comments, and suggestions of the sampled respondents, as well as the examination by the experts.

Before distributing the finalized questionnaire to the respondents, the researcher submitted a formal letter of request to the City Health Officer of Naga City, which was approved. The questionnaires were distributed personally to the respondents, and the completed questionnaires were immediately retrieved to ensure a hundred percent retrieval of responses. The gathered data were tallied, tabulated, and analyzed using descriptive statistics like frequency, percentage, weighted mean, and ranking for systematic presentation.

The researcher committed to the highest standard of research ethics and integrity by asking for permission and consent before conducting the study, treating all gathered information confidentially, treating each respondent fairly and honestly, communicating in a low voice and humble gesture before performing or distributing the questionnaires, keeping the information as secure as possible, discussing the importance of ethics with the respondents, upholding strict health protocols, and taking informed consent seriously.

3 RESULTS

The results of the surveys of the public health workers (nurses and midwives) are presented.

3.1 Profile of the Public Health Workers

Table 3 presents the results of a survey conducted on the profiles and experiences of public health workers in maternal and child health in Naga City.

Most nurses, accounting for 44.4%, are between 28-37 years old. This is followed by those aged 48-57 years old, accounting for 28.9%, while the least represented age group is 58 years old and above, accounting for only 4.4%. Notably, only one respondent falls within the youngest age group of 18-27. Most respondents, accounting for 91.1%, are female, while only 8.9% are male.

Most respondents, accounting for 71.1%, have served for 1-10 years. Only a small number of respondents have served for more extended periods, with 4.4% having served for 21-30 years and the same percentage having served for 31-40 years. As to the number of families being served, the majority, accounting for 33.3%, serve up to 1000 families, while 20% serve 1001-2000 families and 13.3% serve 2001-3000 families. A few respondents serve more than 3,000 families, with 8.9% serving 3001-4000 families and 4.4% serving 4001-5000 families. There are also 20% missing data in this category. Overall, the results show that most midwives and nurses surveyed are female, within the age range of 28-57 years old, have been serving for 1-10 years, and serve up to 2000 families.

Table 3. Profile of the Public Health Workers N=45

Profile Category	f	Percent
AGE		
18-27 years old	1	2.2
28-37	20	44.4
38-47	9	20
48-57	13	28.9
58 years old and above	2	4.4
Total	45	100
SEX		
Male	4	8.9
Female	41	91.1
Total	45	100
LENGTH OF SERVICE		
1-10 years	32	71.1
11-20	2	4.4
21-30	6	13.3
31-40 years	5	11.1
Total	45	100
NUMBER OF FAMILIES SERVED		
Up to 1000 families	15	33.3
1001-2000	9	20
2001-3000	6	13.3
3001-4000	4	8.9
4001-5000	2	4.4
Missing	9	20
Total	45	100

3.2 Effectiveness of Home Visits on Maternal Health

Parenting Skills. Table 4 shows the effectiveness of home visits on maternal health in terms of parenting skills. The indicators include the mother's ability to avoid distractions when spending time with her child, consistency in setting up rules for the child, awareness that the child copies her actions, knowing when to exhibit mean behavior in front of the child, and regularly showing love and affection to the child. The weighted means for each indicator range from 3.71 to 4.47, with an average weighted mean of 3.95. All indicators fall under the "Very Effective" interpretation except for regularly showing love and affection to the child, which falls under the "Extremely Effective" interpretation. The indicators ranking from highest to lowest weighted mean are as follows: showing love and affection, mean behavior, consistency in setting up rules, avoiding distractions, and awareness that the child copies actions.

Table 4. Effectiveness of Home Visits on Maternal Health in terms of Parenting Skills

Indicator	Weighted Mean	Interpretation	Ranking
1. When spending time with her child, the mother avoids too many distractions.	3.78	VE	4
2. The mother consistently sets up rules that her child must follow.	3.87	VE	3
3. The mother knows that her child will copy what she does, not what she says	3.71	VE	5
4. The mother knows when to exhibit mean behavior in front of her child	3.91	VE	2
5. The mother regularly shows love and affection to her child	4.47	EE	1
AVERAGE WEIGHTED MEAN	3.95	VE	

Legend: 4.21-5.00 - Extremely effective (EE), 3.41-4.20 - Very effective (VE), 2.61-3.40 - Moderately effective (ME), 1.81-2.60 - Slightly effective (SE), 1.00-1.80 - Not at all effective (NE)

Mental Health. Table 5 presents the effectiveness of home visits on maternal mental health, including the mother's ability to identify depression symptoms, perception of depression screening, comfort in seeking help, acceptance of medical advice, and development of coping mechanisms. The overall average weighted mean of 3.56 indicates a "Very Effective" level of effectiveness. The highest-ranked indicator is the mother's acceptance of medical advice and interventions. In contrast, the lowest-ranked indicators are the mother's ability to identify symptoms of depression and perception of depression screening.

Table 5. Effectiveness of Home Visits on Maternal Health in terms of Mental Health

Indicator	Weighted Mean	Interpretation	Ranking
1. The mother can readily identify symptoms of depression	3.18	ME	5
2. The mother positively perceives the depression screening we provide	3.29	ME	4
3. The mother feels comfortable seeking help from us about their mental health	3.71	VE	2
4. The mother accepts my medical advice and interventions	3.93	VE	1
5. The mother has developed coping mechanisms to change her problematic thoughts and behaviors through home visits	3.69	VE	3
AVERAGE WEIGHTED MEAN	3.56	VE	

Legend: 4.21-5.00 - Extremely effective (EE), 3.41-4.20 - Very effective (VE), 2.61-3.40 - Moderately effective (ME), 1.81-2.60 - Slightly effective (SE), 1.00-1.80 - Not at all effective (NE)

Socioeconomic Situation. Table 6 summarizes the effectiveness of home visits on maternal health based on five indicators, including the mother's positivity about creating opportunities for learning, knowledge of how to utilize welfare payments, efforts to find employment, positive changes in the mother and partner's time together, and positive changes in the home environment. The results are interpreted using a Likert scale with weighted means and rankings, and the overall average weighted mean is 3.69, indicating a "Very Effective" level of effectiveness. Indicator 1, the mother's positivity about creating opportunities for learning, had the highest weighted mean

and ranking. In contrast, indicator 3, the mother's efforts to find employment, had the lowest weighted mean and ranking.

Table 6. Effectiveness of Home Visits on Maternal Health in terms of Socioeconomic Situation

Indicator	Weighted Mean	Interpretation	Ranking
1. After childbirth, the mother has since been positive about creating opportunities for learning	3.91	VE	1
2. The mother knows how best to utilize her welfare payments (i.e., 4Ps)	3.67	VE	3
3. After childbirth, the mother has since been looking for employment or some better work prospects	3.56	VE	5
4. Since the home visits, I witnessed the mother and her partner enjoying their time together	3.71	VE	2
5. Since the home visits, I witnessed positive changes in their home environment (i.e., decorated walls, added toys, etc.)	3.62	VE	4
AVERAGE WEIGHTED MEAN	3.69	VE	

Legend: 4.21-5.00 - Extremely effective (EE), 3.41-4.20 - Very effective (VE), 2.61-3.40 - Moderately effective (ME), 1.81-2.60 - Slightly effective (SE), 1.00-1.80 - Not at all effective (NE)

Health Service Utilization. Table 7 presents the effectiveness of home visits on maternal health service utilization with indicators such as visiting local health stations, using health insurance, visiting hospitals and traditional healers, and delaying visits. The overall average weighted mean is 3.55, indicating a "Very Effective" level of effectiveness. Indicator 1, visiting local barangay health stations, has the highest weighted mean and ranking. Indicator 5, delaying health facility visits, has the lowest weighted mean and ranking.

Table 7. Effectiveness of Home Visits on Maternal Health in terms of Health Service Utilization

Indicator	Weighted Mean	Interpretation	Ranking
1. During the past six months, the mother has visited the local barangay health station	4.07	VE	1
2. ... The mother has used her health insurance (PhilHealth)	3.71	VE	3
3. ... The mother has visited the local hospital for treatments	3.73	VE	2
4. ... The mother insisted on going first to traditional healers (albularyos) before going to a clinic	3.2	ME	4
5. ... The mother delayed her visit to a health facility	3.04	ME	5
AVERAGE WEIGHTED MEAN	3.55	VE	

Legend: 4.21-5.00 - Extremely effective (EE), 3.41-4.20 - Very effective (VE), 2.61-3.40 - Moderately effective (ME), 1.81-2.60 - Slightly effective (SE), 1.00-1.80 - Not at all effective (NE)

3.3 Effectiveness of Home Visits on Child Health

Physical Health. Table 8 shows the effectiveness of home visits on child health in terms of physical health. The measured indicators include preventing gross motor and fine motor delays, reducing

the impact of low birth weight and preterm on the child, encouraging appropriate eating, sleeping, and activity patterns, and helping maintain the exponential growth of babies in their first two years. The overall average weighted mean is 3.55, indicating a "Very Effective" level of effectiveness. Indicator 4 has the highest weighted mean of 4.18 and is ranked 1st, indicating that home visits encouraged appropriate eating, sleeping, and activity patterns. Indicator 5 has a weighted mean of 4.13 and is ranked 2nd, indicating that home visits helped maintain babies' exponential growth in their first two years. Indicator 3 has a weighted mean of 3.8 and is ranked 3rd, indicating that home visits reduced the impact of low birth weight and preterm on the child. Indicator 2 has a weighted mean of 3.69 and is ranked 4th, indicating that home visits prevented fine motor delays. Finally, Indicator 1 has the lowest weighted mean of 3.67 and is ranked 5th, indicating that home visits prevented gross motor delays.

Table 8. Effectiveness of Home Visits on Child Health in terms of Physical Health

Indicator	Weighted Mean	Interpretation	Ranking
1. Prevented gross motor (rolling, sitting, crawling, walking, or performing other age-appropriate coordinated movements of their arms, legs, and trunk) delays	3.67	VE	5
2. Prevented fine motor (ability to hold, use, or manipulate objects using some of the smallest muscles of the body) delays	3.69	VE	4
3. Reduced the impact of low birth weight and preterm on the child	3.8	VE	3
4. Encouraged appropriate eating, sleeping, and activity patterns	4.18	VE	1
5. Helped in maintaining the exponential growth of babies in their first two years	4.13	VE	2
AVERAGE WEIGHTED MEAN	3.89	VE	

Legend: 4.21-5.00 - Extremely effective (EE), 3.41-4.20 - Very effective (VE), 2.61-3.40 - Moderately effective (ME), 1.81-2.60 - Slightly effective (SE), 1.00-1.80 - Not at all effective (NE)

Cognitive Health. Table 9 shows the effectiveness of home visits on child health in terms of cognitive health. The indicators included are ensuring the child's reflexes are on point, allowing positive formation of attachments and relationships, helping improve the child's spoken language, developing the child's view of object permanence, and improving responsiveness to stimuli. The weighted mean scores for each indicator range from 3.98 to 4.16, with an average weighted mean of 4.05, indicating that home visits effectively promote cognitive health. The ranking of the indicators ranges from 1 to 5, with the indicator "Helped improve responsiveness to stimuli" ranking first and "Developed child's view of object permanence" ranking last.

Table 9. Effectiveness of Home Visits on Child Health in terms of Cognitive Development

Indicator	Weighted Mean	Interpretation	Ranking
1. Ensured child's reflexes are on point (i.e., sucking)	4	VE	4
2. Allowed positive formation of attachments and relationships	4.09	VE	2
3. Helped improve the child's spoken language	4.04	VE	3

4. Developed child's view of object permanence (objects continue to exist even though they can no longer be seen or heard)	3.98	VE	5
5. Helped improve responsiveness to stimuli	4.16	VE	1
AVERAGE WEIGHTED MEAN	4.05	VE	

Legend: 4.21-5.00 - Extremely effective (EE), 3.41-4.20 - Very effective (VE), 2.61-3.40 - Moderately effective (ME), 1.81-2.60 - Slightly effective (SE), 1.00-1.80 - Not at all effective (NE)

Socioemotional Health. Table 10 summarizes the effectiveness of home visits on child health in terms of socioemotional health. The results show that home visits have fostered a child's understanding of basic emotions with a weighted mean of 3.89, ranking fourth in effectiveness. They have also helped develop a child's self-sufficient behavior (e.g., dressing and feeding themselves) and helped them develop and demonstrate empathy, with a weighted mean of 3.96, ranking second and 2.5, respectively. Additionally, home visits have improved a child's sense of security, with a weighted mean of 4.02 and ranking first in effectiveness. The last indicator, helping to understand a child's temperament, has a weighted mean of 3.89 and ranks fourth in effectiveness. The average weighted mean of all indicators is 3.94, which falls under the very effective interpretation.

Table 10. Effectiveness of Home Visits on Child Health in terms of Socioemotional Health

Indicator	Weighted Mean	Interpretation	Ranking
1. Fostered child's understanding of basic emotions	3.89	VE	4
2. Developed child's self-sufficient behavior (e.g., begin to dress themselves, feed themselves, etc.)	3.96	VE	2.5
3. Improved child's sense of security	4.02	VE	1
4. Helped the child to develop and demonstrate empathy	3.96	VE	2.5
5. Helped to understand the child's temperament (general emotional and social state)	3.89	VE	4
AVERAGE WEIGHTED MEAN	3.94	VE	

Legend: 4.21-5.00 - Extremely effective (EE), 3.41-4.20 - Very effective (VE), 2.61-3.40 - Moderately effective (ME), 1.81-2.60 - Slightly effective (SE), 1.00-1.80 - Not at all effective (NE)

Behavioral Development. Table 11 shows home visits' effectiveness on child health regarding behavioral development. The indicators used to measure this effectiveness are improved self-regulation skills, helped the child to avoid unnecessary punishments, supported the child's exploration and creativity, fostered the child's need for a positive nurturing interaction, and Improved child's age-appropriate behaviors. The average weighted mean of these indicators is 3.84, which is considered very effective (VE) according to the interpretation legend. The highest-ranked indicator is Supported the child's exploration and creativity, with a weighted mean of 3.91 and a ranking of 1. On the other hand, it helped the child avoid unnecessary punishments and fostered the child's need for a positive nurturing interaction, tied in ranking at 4.5, with a weighted mean of 3.78. Overall, the home visits have effectively promoted children's behavioral development.

Table 11. Effectiveness of Home Visits on Child Health in terms of Behavioral Development

Indicator	Weighted Mean	Interpretation	Ranking
1. Improved self-regulation skills (i.e., shifting attention when overwhelmed or self-soothing by sucking or using a pacifier when distressed)	3.84	VE	3
2. Helped child to avoid unnecessary punishments by the primary caregiver when a child misbehaves	3.78	VE	4.5
3. Supported the child's exploration and creativity	3.91	VE	1
4. Fostered child's need for a positive nurturing interaction (parent-child interaction)	3.78	VE	4.5
5. Improved child's age-appropriate behaviors	3.89	VE	2
AVERAGE WEIGHTED MEAN	3.84	VE	

Legend: 4.21-5.00 - Extremely effective (EE), 3.41-4.20 - Very effective (VE), 2.61-3.40 - Moderately effective (ME), 1.81-2.60 - Slightly effective (SE), 1.00-1.80 - Not at all effective (NE)

Home Visits and Maternal Health Summary. Based on the results presented in Table 12, it can be seen that home visits positively impact maternal health indicators. The highest-ranking indicator is parenting skills, with an average weighted mean of 3.95, considered very effective. This suggests that home visits can effectively improve mothers' parenting skills, leading to positive outcomes for both the mother and child. The second highest ranking is socioeconomic situation, with an average weighted mean of 3.69, which is also considered very effective. This suggests that home visits can help improve mothers' socioeconomic situation, positively impacting their and their children's health. Third in rank is mental health, with an average weighted mean of 3.56, which is still considered very effective. This suggests that home visits can positively impact mothers' mental health, an important aspect of overall health. The fourth-ranking indicator is health service utilization, with an average weighted mean of 3.55, which is also considered very effective. This suggests that home visits can help improve mothers' utilization of health services, leading to better health outcomes for both the mother and child. Overall, the average weighted mean for all indicators is 3.69, considered very effective. This suggests that home visits can have a significant positive impact on maternal health indicators.

Table 12. Summary of Effectiveness of Home Visits on Maternal Health

Impact of Home Visits on Maternal Health Indicators	Average Weighted Mean	Interpretation	Ranking
1. Parenting skills	3.95	VE	1
2. Mental Health	3.56	VE	3
3. Socioeconomic Situation	3.69	VE	2
4. Health Service Utilization	3.55	VE	4
AVERAGE WEIGHTED MEAN	3.69	VE	

Legend: 4.21-5.00 - Extremely effective (EE), 3.41-4.20 - Very effective (VE), 2.61-3.40 - Moderately effective (ME), 1.81-2.60 - Slightly effective (SE), 1.00-1.80 - Not at all effective (NE)

Home Visits and Child Health Summary. The results presented in Table 13 show the effectiveness of home visits on child health in terms of four indicators: Physical Health, Cognitive Development, Socioemotional Health, and Behavioral Development. The average weighted mean for all four indicators is 3.69, interpreted as Very Effective (VE). Looking at the individual indicators, the home visits were found to be Very Effective (VE) in improving Physical Health, with an average weighted mean of 3.95, making it the highest-ranking indicator. The home visits were Very Effective (VE) in improving Cognitive Development, with an average weighted mean of 3.56, placing it in the third rank. The Socioemotional Health indicator, with an average weighted mean of 3.69, is also considered Very Effective (VE) and is ranked second. Finally, the home visits were found to be Very Effective (VE) in improving Behavioral Development with an average weighted mean of 3.55, ranking it fourth. Overall, the results suggest that home visits are a valuable intervention in promoting child health, particularly in improving physical and socioemotional health and, to a lesser extent, cognitive development and behavioral development.

Table 13. Summary of Effectiveness of Home Visits on Child Health

Impact of Home Visits on Maternal Health Indicators	Average Weighted Mean	Interpretation	Ranking
1. Physical Health	3.95	VE	1
2. Cognitive Development	3.56	VE	3
3. Socioemotional Health	3.69	VE	2
4. Behavioral Development	3.55	VE	4
AVERAGE WEIGHTED MEAN	3.69	VE	

Legend: 4.21-5.00 - Extremely effective (EE), 3.41-4.20 - Very effective (VE), 2.61-3.40 - Moderately effective (ME), 1.81-2.60 - Slightly effective (SE), 1.00-1.80 - Not at all effective (NE)

4 DISCUSSION

The results suggest that home visits by public health workers are perceived to be effective in improving maternal and child health outcomes across various domains. Home visiting programs by public health workers effectively improve maternal health outcomes in various domains, such as positive parenting practices, maternal mental health, and maternal and child health. However, studies also suggest that there is still room for improvement, particularly in addressing maternal mental health issues economic needs, and reducing delays in seeking medical care. Additionally, home-visiting programs may be less effective in addressing the economic needs of mothers and families. Further efforts are necessary to address the barriers to accessing maternal health services, particularly in areas where the utilization of such services remains low.

4.1 Impact of Home Visits on Maternal Health

The findings of this study regarding the impact of home visits on maternal health outcomes align with several key themes identified in relevant research studies. Specifically, the study results demonstrate that home visits positively impact maternal health indicators, with the highest-ranking indicator being parenting skills, followed by socioeconomic situation, mental health, and health service utilization. These findings resonate with the research conducted by [Ngaya-an et al. \(2021\)](#), which emphasized the positive influence of home visiting programs on birth preparedness, newborn care practices, and maternal well-being.

Furthermore, the emphasis on parenting skills in this study corroborates the insights from [Mamauag et al. \(2021\)](#), who highlighted the significance of cultural adaptation in parenting programs. It also aligns with [Leirbakk et al. \(2018\)](#) focus on mentoring mothers during home visits to identify their strengths and resources and provide support and information. The emphasis on consistently setting rules, avoiding distractions, and showing love and affection suggests that

home visits can significantly enhance mothers' parenting skills, fostering a nurturing environment for child development.

The effectiveness of home visits in improving socioeconomic situations aligns with the broader socioeconomic context discussed by [Mallari et al. \(2020\)](#) and [Querri et al. \(2020\)](#), emphasizing the importance of addressing resource support and payment delays for community health workers.

The positive impact on mental health is consistent with the Australian study by [Goldfeld et al. \(2021\)](#), which found that home-visiting programs can lead to better maternal mental health and well-being, suggesting that these effects can endure beyond the intervention period.

The observed improvement in health service utilization echoes the intent of Republic Act 11148 and its focus on strengthening the role of frontline workers, particularly in reaching underserved areas. This aspect resonates with the findings of [Maravilla et al. \(2023\)](#) study on the pandemic's impact on healthcare services in the Philippines, highlighting disruptions in healthcare delivery, including home visitations. Also, this underscores the significance of local health services in community healthcare, as underlined by [Querri et al. \(2020\)](#), who discussed the utilization and challenges faced by barangay health workers in the Philippines. The indicator about delaying health facility visits ranking lowest suggests that home visits may help encourage timely healthcare-seeking behavior among mothers.

Overall, the study's results provide valuable insights into the effectiveness of home visits in improving maternal health outcomes, aligning with international and local research efforts. These findings contribute to the growing body of evidence supporting the importance of home-visiting programs in enhancing maternal health and well-being.

4.2 Impact of Home Visits on Child Health

The results of the child health impact indicators, categorized into physical health, cognitive health, socio-emotional health, and behavioral development, reveal valuable insights into the effectiveness of home visiting programs in various domains of child development. These findings can be related to and discussed in the context of several relevant studies.

In physical health, encouraging appropriate eating, sleeping, and activity patterns through home visits aligns with emphasizing health-promoting behaviors in maternal and child health programs ([Ngaya-an et al., 2021](#)). Conversely, indicating the prevention of gross motor delays as being low-ranked suggests that home visits may have a less pronounced effect on certain physical developmental aspects, which resonates with the notion that comprehensive support is needed to address such issues ([Robling et al., 2022](#)).

Cognitive health indicators reveal varied rankings, with "Helped improve responsiveness to stimuli" ranking highest, in line with home visits' role in enhancing sensory and cognitive responsiveness ([Ngaya-an et al., 2020](#)). The lowest-ranking indicator, "Developed child's view of object permanence," highlights the complexity of cognitive development and the challenges in addressing specific cognitive milestones through home visits.

In socioemotional health, home visits have been particularly effective in improving a child's sense of security, aligning with the broader objectives of fostering emotional well-being and attachment ([Mamauag et al., 2021](#)). Though ranking lower, the indicators related to understanding a child's temperament and fostering an understanding of basic emotions still underscore the potential for home visits to contribute to a child's emotional intelligence.

Regarding behavioral development, the highest-ranked indicator, "Supported the child's exploration and creativity," emphasizes home visits' role in promoting curiosity and creative thinking, aligning with the broader goal of early stimulation and learning ([Ngaya-an et al., 2021](#)). Although ranking lower, the indicators related to avoiding unnecessary punishments and fostering positive nurturing interactions still suggest the potential for home visits to influence positive behavior and discipline strategies.

These findings are consistent with a range of studies. For instance, [Kliem and Sandner \(2021\)](#) study on a German home visiting program demonstrates that such interventions can have lasting positive effects on child development and maternal outcomes, including fewer behavioral problems and improved maternal mental health. Similarly, [Goldfeld et al. \(2021\)](#) Australian study highlights the long-term benefits of nurse home visiting programs on maternal mental health.

In the Philippines, [Mallari et al. \(2020\)](#) emphasizes the importance of community health worker motivation and support, which can apply to the effectiveness of home visits in enhancing child health and development. Furthermore, [Le Roux et al. \(2020\)](#) study on community health workers conducting home visits in South Africa underscores the potential for home visits to impact maternal well-being and child health behaviors positively, consistent with the results presented here. In conclusion, the child health impact indicators shed light on the multifaceted influence of home visiting programs on physical, cognitive, socioemotional, and behavioral aspects of child development. These findings resonate with various international studies, emphasizing the value of home visits in improving child and maternal outcomes across diverse contexts.

4.3 Proposed Nursing Intervention

Several nursing interventions can be proposed and implemented to improve the delivery of home visits by public health nurses and midwives and enhance maternal and child health outcomes in Naga City. However, the researcher has chosen the needs assessment as it is a critical step in determining the community's health needs and developing interventions to address them. Using a needs assessment, the researcher can identify the community's specific health needs related to maternal and child health outcomes and tailor appropriate and relevant interventions to the community's needs. It can also help identify potential barriers and challenges that may affect the delivery of home visits by public health nurses and midwives in Naga City.

Overall, a needs assessment provides a comprehensive understanding of the community's health needs and informs the development of nursing interventions that are evidence-based and culturally appropriate. Therefore, the needs assessment nursing intervention is a crucial first step in improving the delivery of home visits by public health nurses and midwives and enhancing maternal and child health outcomes in Naga City.

The first step in conducting a needs assessment is to define the population or patient group. This may include pregnant women, new mothers, or families with young children in Naga City. Next, the nurse should gather data on the population's health status, including information on maternal and child health outcomes, the prevalence of risk factors such as poverty and lack of access to healthcare services, and any other health concerns specific to the population. In addition to gathering data on the population's health status, the nurse should also collect information on their health beliefs, behaviors, and lifestyle factors that may affect their health outcomes. This may include their beliefs about healthcare, their access to healthcare services, their dietary habits, and their level of physical activity.

Once the data is collected, the nurse should analyze it to identify the population's needs. This may involve identifying areas with a high prevalence of health concerns, areas with a lack of access to healthcare services, or areas with significant gaps in knowledge or understanding about health. Based on the findings of the needs assessment, the nurse can then develop a care plan that is tailored to meet the specific needs of the population. This may include developing educational programs, organizing community outreach events, providing healthcare services in the home or community setting, or partnering with other healthcare providers to address gaps in care.

Overall, a needs assessment is a crucial nursing intervention that can help identify the specific healthcare needs of a patient or population. By using this information to develop a tailored care plan, nurses can improve the delivery of home visits by Public Health Nurses and Midwives, ultimately enhancing maternal and child health outcomes in Naga City.

5 LIMITATIONS

The study has several limitations. Firstly, the sample size is small and does not represent all public health workers in Naga City. Secondly, the study used a purposive sampling method, which may have resulted in a biased selection of respondents. Thirdly, the study relied on self-reported data, which may have been subject to response bias. Fourthly, the study did not consider other factors influencing maternal and child health outcomes, such as socioeconomic status, cultural beliefs, and access to healthcare services. Lastly, the study did not assess the long-term effects of home visits on maternal and child health outcomes. Therefore, the generalizability of the study findings is limited.

The study's findings underscore the importance of delving deeper into specific avenues that have emerged, necessitating further research subsequent to the conclusion of this study. Moreover, it is crucial to acknowledge the intrinsic diversity among night markets across various countries, with their respective economies exhibiting distinctive traits that warrant comprehensive investigation. For a comprehensive understanding, entrepreneurs must discern the nuances of their target market, a pivotal step that empowers them to cultivate innovation within the products they offer. By embracing innovation, entrepreneurs can effectively establish a distinctive edge within the market, elevating their competitiveness and positioning themselves favorably amidst a dynamic landscape.

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