

Contributing Factors of Maternal Malnutrition among Pregnant Women in Barangays Latud and Panalingaan, Rizal Palawan

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DOI: <https://doi.org/10.5281/zenodo.16605830>

Published Date: 30-July-2025

Abstract: This study investigated the contributing factors of maternal malnutrition among pregnant women in Barangays Latud and Panalingaan, Rizal Palawan, Philippines. Employing a descriptive-correlational design, data were collected from 60 pregnant women (30 from each barangay) through structured questionnaires and anthropometric measurements. The demographic profile revealed a high proportion of younger mothers (15-24 years old) and a significant number with multiple pregnancies. While access to prenatal care was generally available, utilization varied due to geographical distance, financial constraints, lack of transportation, and a preference for traditional remedies, particularly in Barangay Latud. Dietary assessments indicated inconsistent intake of essential nutrients, largely influenced by financial difficulties and knowledge gaps. Statistical analysis revealed a significant correlation between age and nutritional status, education, or socioeconomic status. Furthermore, no significant correlations were observed between nutritional status and dietary intake, energy demand, health conditions, or access to maternal services. However, access to prenatal care showed a significant association with both health issues and socioeconomic status. These findings highlight the complex interplay of structural and individual-level factors contributing to maternal malnutrition in these rural communities, emphasizing the need for targeted interventions addressing accessibility, affordability, and culturally sensitive health education.

Keywords: Access to Maternal Health, Barriers to Prenatal Care, Health Issues and Pre-existing Medical Conditions, Maternal Health, Maternal Malnutrition, Mid-Upper Arm Circumference (MUAC), Nutritional Status, Prevalence Rate of Maternal Malnutrition, Socioeconomic Factors.

I. INTRODUCTION

This undergraduate thesis investigates the contributing factors of maternal malnutrition among pregnant women in Barangays Latud and Panalingaan, Rizal Palawan. The study conducted by Arquio, Bepinoso, Maglente, and Paguntalan, and Piñon as the co-author (June 2025) of Mary Chiles Colleges, College of Midwifery, addresses a significant public health concern in these rural communities where access to nutritious food and healthcare is limited.

The research aims to identify specific local challenges and inform the development of effective, targeted health strategies to improve maternal and child health outcomes. The prevalence of maternal malnutrition in the Philippines is well-documented issue. The Food and Nutrition Research Institute (FNRI,2023) reports a concerning rate of pregnant women at nutritional risk. Existing research, such as that by Ulep et al. (2022), highlights the significant contribution of maternal factors like education level, body mass index (BMI), and the quality of prenatal care to child stunting. Bustos et al. (2023) emphasize the positive impact of social protection programs on maternal and child healthcare access, and consequently,

nutritional outcomes. However, a gap remains in localized data on the specific factors contributing to maternal malnutrition in Barangays Latud and Panalingaan. This study seeks to fill this gap by providing a detailed analysis of the contributing factors within these specific communities, informing the creation of evidence-based interventions. The authors' contribution lies in providing this crucial localized data to improve maternal health outcomes in these underserved rural areas.

II. METHODOLOGY

This study adopted a **mixed-methods design**, combining descriptive and descriptive-correlational approaches to explore maternal malnutrition among pregnant women in Barangays Latud and Panalingaan, Rizal, Palawan. A total of 60 participants—30 from each barangay—were selected through purposive sampling and total enumeration, ensuring representation of indigenous and socioeconomically diverse groups.

A **structured questionnaire**, guided by the **FAO's 2017 food security framework**, was the primary research tool. It was organized into five parts: socio-demographic profile, dietary habits, food taboos, access to health services, and nutritional status. The instrument underwent expert validation in public health and nutrition and was translated into Tagalog with Bisaya translated to accommodate limited literacy and cultural clarity. Selected anthropometric indicators (BMI, MUAC) supported objective nutritional assessment.

Data collection was conducted in partnership with barangay officials and health workers. Permission letters were submitted to academic institutions, local government units, and IP authorities. Informed consent (or assent for minors) was obtained. Survey sessions were scheduled and administered one-on-one for accuracy and confidentiality. Completed questionnaires were securely stored, and findings were interpreted using descriptive and inferential statistics via **SPSS v26**.

Ethical considerations followed Republic Act 10173 (Data Privacy Act of 2012), emphasizing informed consent, data confidentiality, voluntary participation, and health protocols. Research procedures were reviewed by institutional ethics personnel and aligned with cultural sensitivity standards throughout the study.

III. RESULTS AND DISCUSSION

TABLE I. Nutritional Status of the Respondents

Barangay	Normal (%)	Moderate Acute Malnutrition (%)	Severe Acute Malnutrition (%)
Latud	21.7	28.3	0.00
Panalingaan	26.7	21.7	1.7

As seen in TABLE I, approximately half of the respondents in both barangays exhibit moderate acute malnutrition, with fewer cases of normal and severe malnutrition. This trend emphasizes the need for community-based nutritional interventions.

TABLE II. Access to Prenatal Care Among Respondents in Barangays Latud and Panalingaan

Access to Prenatal Care	Barangay	Frequency	Percentage (%)
Monthly	Latud	20	33.3
	Panalingaan	23	38.3
Once every Trimester	Latud	5	8.3
	Panalingaan	0	0.0
Only when necessary	Latud	4	6.7
	Panalingaan	7	11.7
No access	Latud	1	1.7
	Panalingaan	0	0.0

As shown in TABLE II, monthly access to prenatal care is the most common among respondents 33.3% in Latud and 38.3% in Panalingaan, indicating generally good access to maternal services. These visits are essential for monitoring the health and nutritional status of both mother and child, especially among indigenous women, who may benefit from integrating traditional practices with formal healthcare.

However, some women access prenatal care less frequently. In Latud, 8.3% attend only once per trimester, while Panalingaan reports none in this category. Additionally, 6.7% of Latud respondents and 11.7% in Panalingaan seek care only when necessary, indicating intermittent access that may leave nutritional and medical gaps unaddressed.

A small portion 1.7% in Latud, reported no access to prenatal services. These women, particularly those from indigenous backgrounds, may rely entirely on traditional remedies, which may not fully meet their prenatal health needs.

These results highlight the need for culturally sensitive outreach strategies that promote consistent prenatal engagement. Addressing barriers such as transport, financial limitations, and cultural preferences is vital for improving maternal care utilization and reducing malnutrition risks in rural communities.

IV. CONCLUSION

This study examined the multifaceted causes of maternal malnutrition in the rural barangays of Latud and Panalingaan, Rizal, Palawan, where pregnant women face elevated nutritional risks due to socioeconomic challenges, limited access to healthcare services, and cultural dietary beliefs. The findings revealed that poverty, early pregnancy, inadequate prenatal care, food insecurity, and lack of nutritional awareness are among the most significant contributing factors.

An advantage of the research lies in its localized focus on geographically isolated and disadvantaged areas (GIDA), which are often underrepresented in national health discussions. By highlighting the lived experiences of women in these communities, the study offers specific, actionable insights for health workers, local government units, and policy developers seeking to improve maternal wellness in rural populations. However, the study also carries limitations. The sample size was relatively small, and data collection was confined to two barangays, which may affect generalizability. Despite this, the results reflect the broader patterns observed in similar rural settings across the Philippines.

The practical value of this research is its potential to inform targeted health programs and community interventions. Strategies such as improved nutrition education, strengthened maternal care services, and culturally respectful community outreach could address the nutritional gaps identified. By acknowledging the social and environmental realities of these barangays, stakeholders are better equipped to reduce maternal malnutrition and its long-term effects on child health and development.

V. ACKNOWLEDGEMENT

We express our heartfelt gratitude to Ms. Marilyn V. Piñon, our dedicated Research Adviser and Coordinator, for her invaluable guidance, expertise, and unwavering support throughout the development of this study.

We also sincerely thank Ms. Laurice Marie M. Cotanda, our grammarian, for her careful review and refinement of our manuscript, and Ms. Renee Rose Corbano-Reyes, our statistician, for her expert assistance in guiding us through the analytical phases of this research.

We extend our deep appreciation to our Panel of Examiners—Ms. Maria Concepcion T. Aslor, Mr. Joel A. Valencia, and Mr. Kevin Apoloan—for their thoughtful evaluation, valuable insights, and constructive feedback that greatly contributed to the scholarly integrity of our work.

Special thanks go to Dean Stella Marie J. Gonzaga-Galicia of the College of Midwifery, whose leadership and encouragement provided us with the direction and resources necessary to complete this project.

We are sincerely grateful to the pregnant women of Barangays Latud and Panalingaan, Rizal, Palawan, for their time, trust, and willingness to share their experiences, which were vital to the success of this study.

Above all, we thank Almighty God for the strength, wisdom, and perseverance that guided and sustained us throughout this academic journey.

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