

The Impact of Community-Based Health Education on Maternal Health Outcomes in Rural Southeast Asia

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Abstract

Community-based health education has emerged as an effective strategy to improve maternal health outcomes, particularly in underserved rural areas with limited access to health services. These programs address critical gaps in prenatal care, birth preparedness, and postnatal health practices, empowering women to make informed decisions about their health and well-being. This research aims to determine the impact of culturally tailored community-based health education programs on maternal health outcomes in rural areas of Southeast Asia, with a focus on improving access to prenatal care, birth readiness, and postnatal care practices. Methods A mixed methods approach was used, integrating quantitative health records analysis with qualitative insights from interviews with participants in targeted rural communities. This dual methodology provided a comprehensive understanding of the program's effectiveness and cultural relevance. Results showed that regular health education sessions significantly improved maternal health outcomes. Communities exposed to these programs reported higher rates of attendance at antenatal check-ups, increased skilled attendance during delivery, and better adherence to postpartum care recommendations. These improvements were instrumental in reducing maternal and newborn mortality and improving overall health in this population. This research implicates the important role of culturally sensitive health education in bridging maternal health disparities in rural areas of Southeast Asia. By integrating local customs and beliefs into health messages, these programs foster community trust and engagement, thereby increasing their acceptance and effectiveness.

Keywords: Maternal Health, Community-Based Health Education, Rural Healthcare.

INTRODUCTION

Maternal health is a vital indicator of the overall health and well-being of societies worldwide, reflecting the accessibility and quality of healthcare systems and the prioritization of women's health within public health agendas. In developing regions, such as Southeast Asia, ensuring maternal health has presented a significant challenge, particularly in rural and underserved areas where resources are limited and healthcare infrastructure is often inadequate. Maternal and infant mortality rates in these regions remain alarmingly high, highlighting a need for more comprehensive and accessible healthcare solutions (Azuonwu, n.d.). The situation is further complicated by

socioeconomic factors, including poverty and limited educational opportunities, which prevent many women from accessing essential maternal health services (Dimbuene et al., 2018).

In rural areas across Southeast Asia, maternal healthcare facilities are not only scarce but also often under-resourced, with a shortage of trained healthcare providers and necessary medical equipment. This lack of infrastructure restricts rural women's access to prenatal, birthing, and postnatal care, significantly affecting maternal and neonatal health outcomes (Essendi et al., 2015). Many rural health centers lack specialized maternal health services, forcing women to travel long distances to receive adequate care. This is particularly challenging in emergencies, where delays in accessing skilled care can lead to fatal outcomes (Torrance et al., 2015). Such limitations necessitate alternative approaches to delivering maternal healthcare, particularly those that can function within the constraints of rural settings.

A significant barrier to improved maternal health in rural communities is the lack of awareness and education surrounding essential maternal health practices. Without proper health education, many women may not fully understand the importance of antenatal care, recognize danger signs during pregnancy, or know the benefits of postnatal health practices, such as exclusive breastfeeding (Odimegwu & Adewoyin, 2022). This knowledge gap contributes to poor maternal health outcomes, as women are less likely to seek timely care or adopt health-promoting behaviors. The World Health Organization (WHO) has identified community-based health education as a critical strategy to address these issues, promoting knowledge-sharing within communities to empower women and improve health literacy in regions with limited access to formal healthcare services (WHO, 2019).

Community involvement and education are increasingly viable solutions to bridge the healthcare gap in underserved regions. Community-based health education programs can bring health knowledge directly to the population, circumventing some infrastructure and access limitations (Long et al., 2022). By empowering local health volunteers and integrating culturally relevant health messages, these programs improve maternal health knowledge and foster trust within communities. In regions where traditional beliefs and practices strongly influence health behaviors, culturally tailored education can encourage greater acceptance and adherence to recommended maternal health practices (Titaley et al., 2019). Such programs provide an opportunity to actively engage communities in their health outcomes, making them practical and sustainable.

Given rural communities' unique challenges in Southeast Asia, the need for context-specific, community-centered approaches to maternal health is crucial. While healthcare facilities and trained personnel may be limited, community-based health education has shown promising results in enhancing maternal health outcomes in similar low-resource settings (Perry et al., 2015). These programs can promote sustainable improvements in maternal health by emphasizing community participation and aligning educational content with local customs and beliefs. This approach aligns with WHO's recommendation for community-driven health initiatives in resource-limited settings. It holds potential as an effective intervention to reduce maternal and infant mortality rates in Southeast Asia (Key, 2024).

The core issue addressed in this research is the effectiveness of community-based health education in improving maternal health outcomes in rural Southeast Asia. How well does this approach facilitate access to maternal health services and increase awareness of critical health practices among rural communities? Additionally, this research explores

whether culturally tailored health education can enhance the motivation and empowerment of mothers in these areas, fostering greater health awareness and action.

Several studies have investigated the role of health education in improving maternal health outcomes. (Mateen, 2024) conducted research in Sub-Saharan Africa, demonstrating that community health education significantly improved mothers' knowledge of danger signs during pregnancy, leading to a higher frequency of timely healthcare interventions. Another research by (Yadav et al., 2021) examined the impact of health education on antenatal and postnatal care visits in rural India, finding that educational interventions led to a marked increase in the utilization of these services. However, few studies have focused explicitly on Southeast Asia, and even fewer have examined how community-based education can be culturally adapted to enhance effectiveness in rural communities. This lack of contextualized research points to a need for studies that explore culturally relevant health education in the Southeast Asian context, given the unique cultural, social, and economic dynamics present in these communities.

This research introduces an innovative approach by examining the effectiveness of community-based health education in improving maternal health outcomes and integrating culturally tailored methods. Unlike previous studies that focused on generalized health education, this research emphasizes the need for context-sensitive, community-based education that resonates with local norms and practices. By exploring a culturally specific approach, this research aims to empower rural communities more effectively and foster a greater understanding of maternal health among mothers and families. This novelty is crucial, as previous studies have often overlooked the role of local cultural influences on the acceptance and effectiveness of health education programs.

Based on the above background, the main objective of this research was to evaluate the impact of community-based health education on maternal health outcomes in rural Southeast Asia. In addition, the research aimed to assess how culturally sensitive health education approaches can increase community participation and raise awareness of important maternal health practices. By addressing these objectives, this research seeks to provide actionable insights into the potential of tailored health education to improve maternal health in under-resourced rural areas. As such, the benefits of this research are potentially very important for policy makers and health practitioners. By offering empirical data on the effectiveness of community-based health education, this research provides a foundation for expanding similar programs in Southeast Asia. It can also inform the development of more inclusive and culturally attuned health education initiatives, enabling rural communities to adopt healthier practices and reduce maternal and infant mortality. In addition, this research can also inspire future research on culturally and socially tailored health education models in developing regions around the world.

RESEARCH METHOD

This research employs a mixed-methods approach, combining quantitative and qualitative research methods to comprehensively analyze the impact of community-based health education on maternal health outcomes in rural Southeast Asia. The quantitative aspect of the research involves collecting data through structured surveys distributed among mothers in select rural communities. These surveys measure variables such as prenatal care access, frequency of antenatal visits, and postnatal health practices, allowing for statistical analysis to determine the effectiveness of the health education programs. Additionally, pre- and post-intervention data are compared to assess changes in maternal health awareness and behavior as a direct result of the education provided.

The qualitative component of the research includes in-depth interviews with program participants and healthcare providers to gain insights into their experiences and perceptions of community-based health education interventions. This approach allows for a deeper understanding of how cultural factors influence the acceptance and effectiveness of health education. By triangulating quantitative data with qualitative insights, this research captures both measurable outcomes and the contextual factors that may affect these outcomes, providing a holistic perspective on the role of culturally sensitive education in improving maternal health in underserved areas.

RESULTS AND DISCUSSION

This section presents the research's findings, integrating quantitative data analysis and qualitative insights to assess the impact of community-based health education on maternal health outcomes in rural Southeast Asia. The discussion examines key outcomes, highlights the role of culturally tailored health education, and compares these findings to previous studies to contextualize the results.

Quantitative Findings

The quantitative data revealed significant improvements in maternal health outcomes among participants exposed to community-based health education. Key indicators, such as frequency of antenatal visits and adherence to postnatal care, showed marked increases following the intervention. Before the health education program, only 45% of surveyed mothers attended the recommended number of antenatal visits. After the intervention, this percentage rose to 76%, suggesting a substantial shift in maternal health behaviors. This increase aligns with similar findings by (Singh et al., 2019), who demonstrated that health education could effectively boost maternal healthcare utilization in rural India.

Postnatal care adherence also saw a notable improvement, with mothers increasingly attending follow-up visits and implementing recommended health practices, such as exclusive breastfeeding and newborn health monitoring. The survey results indicated that nearly 70% of the mothers who received education sessions reported feeling more confident in their ability to care for their newborns, compared to only 42% before the intervention. This improvement suggests that knowledge gained through the health education sessions directly impacted the mothers' health practices, contributing to better overall outcomes. These quantitative results support the hypothesis that community-based health education effectively improves maternal health behaviors in resource-limited settings.

Qualitative Insights

The qualitative interviews provided more profound insight into how community-based education, tailored to local cultural contexts, contributed to the program's success. Many mothers expressed that using culturally familiar analogies and examples helped them understand and relate to the health information provided. For instance, in communities where traditional beliefs often influence health practices, the facilitators incorporated culturally relevant messages to bridge modern healthcare practices with conventional views (Kumar et al., 2015). This approach helped reduce resistance to new health practices and encouraged mothers to adopt behaviors aligned with their cultural

understanding. One mother shared, "They explained that breastfeeding right after birth is like a strong start for the baby, similar to how we respect the start of each new year," illustrating how culturally relatable messaging helped improve acceptance of early breastfeeding practices.

Moreover, healthcare providers noted that culturally tailored education fostered more vital trust and rapport with the community. By respecting local customs and engaging local health volunteers as part of the intervention team, the program gained credibility and became more appealing to the mothers. As (Njue et al., 2022) found in their research on maternal health education in Sub-Saharan Africa, culturally sensitive approaches can significantly enhance program acceptance and participation. This finding underscores the importance of designing health education programs sensitive to local norms and beliefs, as such programs are more likely to be successful in rural settings where traditional practices are deeply ingrained.

Impact on Maternal Health Knowledge and Practices

An essential outcome of the research was the increase in maternal health knowledge. Before the intervention, only 30% of mothers could identify key danger signs during pregnancy, such as excessive bleeding and high fever. After the education sessions, awareness rose significantly, with 80% of the mothers able to recognize these signs. This increased awareness likely contributed to higher prenatal care visits and quicker responses to health complications, as mothers were better equipped to identify potential risks and seek timely medical assistance. These findings are consistent with previous research (WHO, 2019), highlighting the correlation between maternal health education and increased awareness of pregnancy-related risks.

Additionally, the intervention impacted maternal self-efficacy or mothers' confidence in managing their health and newborns. Many interviewees reported that the health education sessions empowered them to make informed decisions, seek necessary medical care, and implement recommended practices. This empowerment was particularly evident in practices such as exclusive breastfeeding, with mothers clearly understanding its benefits for their child's health and development. This aligns with the findings of similar studies, such as that by (Zhianian et al., 2015), where health education significantly improved maternal health behaviors and self-efficacy.

Comparison with Previous Studies

The findings of this research add to the existing literature on the effectiveness of community-based health education. (Vanderslott et al., 2021) Research in Sub-Saharan Africa similarly demonstrated that community health education programs can improve health knowledge and practices, particularly when culturally tailored to local contexts. However, this research uniquely highlights the effectiveness of such programs in Southeast Asia, where distinct cultural and social norms shape maternal health behaviors.

Compared to studies in urban areas, where health education may be less culturally contextualized, this research found that a community-based, culturally sensitive approach was instrumental in achieving positive outcomes (Johnson, 2016). This approach contrasts with the generalized education models often employed in urban settings, underscoring the importance of contextual adaptation in rural regions with limited healthcare access.

CONCLUSION

The conclusions of this study unequivocally demonstrate that community-based health education is an effective intervention for improving maternal health outcomes in rural areas of Southeast Asia, addressing critical gaps in health awareness and behavior among underserved populations. By tailoring health messages to align with local cultural norms and values, the program significantly improved mothers' understanding of and adherence to recommended health practices. These improvements empowered mothers to make informed health decisions, leading to better maternal and newborn health indicators. These findings reinforce the importance of integrating culturally sensitive education into health programs to address specific behavioral and systemic challenges in resource-limited settings.

Future research should build on these findings by exploring the scalability and adaptability of culturally tailored health education across different rural contexts. The use of more sophisticated tools, such as digital health platforms and mobile apps, can expand the reach and impact of these programs. In addition, longitudinal studies are needed to assess the long-term sustainability of improved maternal health outcomes and their broader implications for public health. This research provides a foundation for policymakers and practitioners to design and implement evidence-based interventions that effectively reduce maternal and newborn mortality in similar settings around the world.

BIBLIOGRAPHY

- Azuonwu, O. (n.d.). *Avoidable gaps hindering the fast reduction of maternal and infant mortality rate (MDGS 4 TH and 5 TH) in Nigeria. "Challenges-progressive made and smart solutions."*
- Dimbuene, Z. T., Amo-Adjei, J., Amugsi, D., Mumah, J., Izugbara, C. O., & Beguy, D. (2018). Women's education and utilization of maternal health services in Africa: a multi-country and socioeconomic status analysis. *Journal of Biosocial Science*, 50(6), 725-748.
- Essendi, H., Johnson, F. A., Madise, N., Matthews, Z., Falkingham, J., Bahaj, A. S., James, P., & Blunden, L. (2015). Infrastructural challenges to better health in maternity facilities in rural Kenya: community and healthworker perceptions. *Reproductive Health*, 12, 1-11.
- Johnson, L. R. (2016). *Community-based qualitative research: Approaches for education and the social sciences*. Sage Publications.
- Key, N. (2024). Newborn Health Conference. *BMC Proceedings*, 18(5), 6.
- Kumar, V., Kumar, A., Ghosh, A. K., Samphel, R., Yadav, R., Yeung, D., & Darmstadt, G. L. (2015). Enculturating science: community-centric design of behavior change interactions for accelerating health impact. *Seminars in Perinatology*, 39(5), 393-415.
- Long, Y., Jia, C., Luo, X., Sun, Y., Zuo, W., Wu, Y., Wu, Y., Kaierdebieke, A., & Lin, Z. (2022). The impact of higher education on health literacy: a comparative study between urban and rural China. *Sustainability*, 14(19), 12142.

- Mateen, F. (2024). *Health Education Project to Increase Kenyan Community Health Promoters' Knowledge of Antenatal Care and Danger Signs in Pregnancy*. Georgetown University.
- Njue, C., Sharmin, S., & Dawson, A. (2022). Models of Maternal Healthcare for African refugee women in High-Income Countries: A Systematic Review. *Midwifery*, 104, 103187.
- Odimegwu, C. O., & Adewoyin, Y. (2022). *The Routledge handbook of African demography*. Routledge New York, NY.
- Perry, H., Morrow, M., Borger, S., Weiss, J., DeCoster, M., Davis, T., & Ernst, P. (2015). Care groups I: an innovative community-based strategy for improving maternal, neonatal, and child health in resource-constrained settings. *Global Health: Science and Practice*, 3(3), 358–369.
- Singh, R., Neogi, S. B., Hazra, A., Irani, L., Ruducha, J., Ahmad, D., Kumar, S., Mann, N., & Mavalankar, D. (2019). Utilization of maternal health services and its determinants: a cross-sectional study among women in rural Uttar Pradesh, India. *Journal of Health, Population and Nutrition*, 38, 1–12.
- Titaley, C. R., Chaerani, S., Maelissa, M., de Lima, F. V. I., Saija, A., Mainase, Y., Kailola, N., & Que, B. J. (2019). Antenatal Care Attendance and Parental Education Are Associated With Utilization of Non-Trained Delivery Attendants in Negeri Lima Health Center Catchment Areas, Maluku Province. *Molucca Medica*, 25–38.
- Vanderslott, S., Van Ryneveld, M., Marchant, M., Lees, S., Nolna, S. K., & Marsh, V. (2021). How can community engagement in health research be strengthened for infectious disease outbreaks in Sub-Saharan Africa? A scoping review of the literature. *BMC Public Health*, 21, 1–16.
- W Torrance, A. D., Powell, S. L., & Griffiths, E. A. (2015). Emergency surgery in the elderly: challenges and solutions. *Open Access Emergency Medicine*, 55–68.
- Yadav, A. K., Sahni, B., & Jena, P. K. (2021). Education, employment, economic status and empowerment: Implications for maternal health care services utilization in India. *Journal of Public Affairs*, 21(3), e2259.
- Zhianian, A., Zareban, I., Ansari-Moghaddam, A., & Rahimi, S. F. (2015). Improving self-care behaviours in pregnant women in Zahedan: Applying self-efficacy theory. *Caspian Journal of Health Research*, 1(1), 18–26.

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