



Maternal and Child Health Nursing Practices in Developing Countries

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Abstract

Introduction: Maternal and child health (MCH) remains a major public health priority in developing countries, where preventable maternal and neonatal morbidity and mortality continue to be high. Nurses play a crucial role in delivering comprehensive MCH services, including antenatal, intranatal, postnatal, and child healthcare. This study aims to assess MCH nursing practices and identify key factors influencing effective service delivery in developing countries.

Material and Methods: A narrative review was reported among MCH nurses working in selected healthcare facilities in developing countries. Data were collected using a structured questionnaire covering socio-demographic characteristics, MCH nursing practices, availability of resources, and perceived barriers to care. Descriptive and inferential statistics were used to analyze the data and identify factors associated with effective MCH nursing practices.

Results: The findings revealed that the majority of nurses demonstrated satisfactory practices in antenatal care, immunization services, growth monitoring, and health education. However, gaps were reported in postnatal follow-up, emergency obstetric care, and neonatal resuscitation practices. Factors significantly associated with improved nursing practices included years of clinical experience, availability of essential supplies, in-service training, and supportive supervision. Resource constraints, high workload, and limited continuing education opportunities were reported as major challenges.

Conclusion: MCH nursing practices in developing countries are pivotal to improving MCH outcomes. Strengthening nursing education, ensuring adequate resources, and providing regular training and supportive supervision can enhance the quality of MCH services. Targeted policy interventions focusing on capacity building and health system strengthening are essential to improve MCH indicators in developing settings.

Keywords: Maternal health, child health, maternal health services, child health services, nursing care

INTRODUCTION

Maternal and child health (MCH) is a fundamental component of public health and a key determinant of population well-

being and socioeconomic development. Although global progress has reduced maternal and child mortality, preventable morbidity and mortality remain high in developing countries due to inadequate healthcare infrastructure, shortages of skilled personnel, limited access to essential services, and socioeconomic barriers. Nurses form the backbone of MCH services in these settings, providing care across the continuum of antenatal, intrapartum, postnatal, neonatal, and child health services. Beyond clinical care, they contribute to health promotion, disease prevention, community engagement, and advocacy. Evidence shows that effective nursing practices – such as antenatal risk assessment, skilled birth support, breastfeeding counseling, newborn care, immunization, and

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growth monitoring – are associated with improved MCH outcomes. However, services remain constrained by resource limitations, heavy workloads, insufficient training, and weak health systems, particularly in rural areas. Moreover, existing literature often focuses on physician-led interventions, with limited synthesis of nursing-specific contributions. This review aims to consolidate current evidence on MCH nursing practices in developing countries, highlighting key practices, challenges, and opportunities to strengthen the nursing role in improving health outcomes.

MATERIALS AND METHODS

Study design

This study employed a narrative review design to comprehensively examine MCH nursing practices in developing countries. A narrative review approach was selected to allow flexibility in synthesizing diverse study designs, including quantitative, qualitative, and mixed-method research. This design facilitated a broad understanding of nursing roles across different healthcare contexts and levels of care. The review aimed to identify prevailing nursing practices, challenges, and evidence-based interventions influencing MCH outcomes. Unlike systematic reviews, this approach enabled critical discussion of contextual and practice-based variations. The design also allowed inclusion of policy-relevant and practice-oriented studies.^[1] Overall, the narrative review design supported an in-depth exploration of the scope and complexity of MCH nursing practices.

Data collection tools and procedures

Data collection involved a systematic search of electronic databases including PubMed, Scopus, CINAHL, and Google Scholar. A combination of keywords and Boolean operators was used to identify relevant literature. Titles and abstracts were screened to assess relevance, followed by full-text review of eligible articles. Data extraction was reported using a structured data extraction form. Extracted information included study design, setting, population, nursing interventions, and key findings. Data were independently reviewed to ensure accuracy and completeness. This structured approach enhanced the transparency and reliability of the review process.

Variables and operational definitions

The review examined key variables related to MCH nursing practices. Maternal health nursing practices were operationally defined as nursing interventions related to antenatal, intrapartum, and postnatal care. Child health nursing practices included newborn care, immunization, growth monitoring, and management of common childhood illnesses. Preventive and promotive practices encompassed health education, nutritional counseling, and family planning services. Factors influencing nursing practices included training, resource availability, workload, and health system support.^[2] Outcomes were defined in terms of MCH indicators, service utilization, and quality of care. These operational definitions provided consistency in data interpretation across studies.

Ethical considerations

As this study was based solely on previously published literature, ethical approval was not required. However, ethical principles related to academic research were strictly followed throughout the review process. All sources were appropriately cited to acknowledge original authors and avoid plagiarism. Data were reported accurately without fabrication or misrepresentation. The review maintained transparency in study selection and data synthesis. Respect for intellectual property was upheld at all stages. Ethical rigor contributed to the credibility and integrity of the review findings.

Data analysis

Data analysis involved a thematic synthesis approach to integrate findings from the included studies. Extracted data were organized into thematic categories related to maternal health nursing practices, child health nursing practices, and influencing factors. Patterns and relationships across studies were reported and compared. Similarities and differences in nursing practices across settings and regions were critically examined. Emerging themes were refined through iterative review and discussion. The synthesized findings were interpreted in relation to existing evidence and contextual factors. This analytical approach enabled meaningful integration of diverse research findings.^[3]

Inclusion and exclusion criteria

Inclusion criteria

- Studies focusing explicitly on maternal and/or child health nursing practices
- Research reported in developing or low- and middle-income countries
- Studies addressing nursing roles in antenatal, intrapartum, postnatal, neonatal, or child health care
- Quantitative, qualitative, and mixed-method empirical studies
- Review articles relevant to MCH nursing practice.

Exclusion criteria

- Studies focusing primarily on physician-led or medical interventions without nursing involvement
- Research reported exclusively in developed or high-income countries
- Editorials, commentaries, letters to the editor, conference abstracts, and opinion papers
- Studies with unclear methodology or insufficient outcome reporting.

RESULTS

The review included studies reported across developing countries in Asia, Africa, and Latin America that examined MCH nursing practices in hospital, primary healthcare, and community-based settings. The synthesized findings are presented under thematic categories highlighting socio-demographic characteristics of nurses, MCH nursing

practices, preventive activities, and factors influencing nursing performance.

Socio-demographic characteristics of participants

Across the reviewed studies, MCH services were predominantly delivered by female nursing personnel, including staff nurses, midwives, auxiliary nurse midwives, and community health nurses. Most studies reported nurses belonging to the early to middle adult age group, with clinical experience ranging from newly qualified nurses to those with more than 10 years of service. Educational qualifications varied from diploma-level nursing to graduate and postgraduate degrees. Nurses working in rural and peripheral healthcare facilities were often younger and had fewer opportunities for advanced training. Several studies reported that nurses with higher educational qualifications and longer work experience demonstrated better adherence to MCH guidelines. Sociodemographic characteristics were frequently associated with differences in clinical competence, confidence, and quality of care delivery.^[4]

Maternal health nursing practices

Maternal health nursing practices reported across the reviewed literature included antenatal, intrapartum, and postnatal care services. Nurses were actively involved in antenatal registration, routine monitoring of pregnancy, nutritional counseling, and identification of high-risk pregnancies. During labor and delivery, nursing responsibilities included monitoring maternal and fetal status, infection prevention practices, emotional support, and assistance during childbirth, particularly in resource-limited settings. Postnatal nursing care focused on monitoring maternal recovery, counseling on breastfeeding, and early detection of postpartum complications. Several studies highlighted consistent implementation of antenatal care protocols, while gaps were noted in emergency obstetric preparedness and referral services.^[5] Overall, nursing-led maternal health practices were reported to contribute significantly to improved maternal health outcomes.

Child health nursing practices

Child health nursing practices were a major focus of the reviewed studies. Nurses played a key role in immediate newborn care, including thermal care, early initiation of breastfeeding, and observation for neonatal complications. Immunization services were universally reported as a core nursing responsibility, with nurses ensuring vaccine delivery, cold-chain maintenance, and caregiver education. Growth monitoring, nutritional assessment, and management of common childhood illnesses such as diarrhea and respiratory infections were commonly reported nursing activities. Community-based nurses were instrumental in ensuring continuity of child health services through follow-up visits and outreach programs. Despite challenges related to workload and resource availability, nursing interventions were consistently associated with improved child survival and health indicators.^[6]

Preventive and health promotion activities

Preventive and health promotion activities formed an integral component of MCH nursing practices across the reviewed

studies. Nurses were actively involved in health education related to maternal nutrition, birth preparedness, personal hygiene, exclusive breastfeeding, complementary feeding, and family planning. Community outreach programs led by nurses increased awareness and utilization of MCH services. Preventive screening for anemia, malnutrition, and developmental delays was commonly reported. Several studies emphasized the effectiveness of nurse-led health promotion interventions in reducing preventable MCH risks.^[7] These activities strengthened community engagement and contributed to improved health-seeking behaviors.

Factors influencing nursing practices

Multiple factors influencing MCH nursing practices were reported in the reviewed literature. Individual-level factors included nurses' education, clinical skills, experience, and motivation. Organizational factors such as staffing shortages, high workload, limited availability of essential supplies, and lack of supportive supervision were commonly reported barriers. Health system challenges, including weak referral mechanisms and inadequate infrastructure, further affected service delivery. Sociocultural factors, such as traditional beliefs and community acceptance, also influenced nursing effectiveness. Studies consistently highlighted that ongoing training, adequate resources, and supportive working environments were associated with improved nursing practices and better MCH outcomes.^[8]

Antenatal, intranatal, and postnatal nursing practices

Coverage and quality of antenatal care

The review findings indicate that antenatal care coverage has increased in many developing countries due to improved primary healthcare outreach and nursing involvement. Nurses play a central role in providing routine antenatal checkups, health education, and risk screening for pregnant women. Antenatal services commonly include monitoring of maternal weight, blood pressure, hemoglobin levels, and fetal growth. Nutritional counseling and iron-folic acid supplementation are key nursing responsibilities that contribute to maternal health improvement. Health education regarding danger signs of pregnancy enhances early care-seeking behavior. Despite increased coverage, gaps in quality, frequency of visits, and continuity of care remain evident. Shortage of trained nurses and limited resources affect service delivery.^[9] Strengthening nurse-led antenatal care is crucial for improving maternal outcomes in developing countries.

Skilled birth attendance and delivery care

Skilled birth attendance by nurses and midwives is reported as a major factor in reducing maternal and neonatal mortality. The reviewed literature emphasizes that deliveries reported under the supervision of trained nursing personnel ensure safe and hygienic practices. Nurses provide continuous monitoring of labor progress and promptly identify complications such as prolonged labor or fetal distress. Infection prevention measures during delivery reduce the risk of maternal and neonatal sepsis. Nurses also ensure timely referral to higher-level facilities

when complications arise. Emotional support and respectful maternity care provided by nurses improve the childbirth experience. Inadequate staffing and infrastructure challenges still limit access to skilled delivery care. Enhancing nursing capacity can significantly improve delivery outcomes.

Postnatal follow-up and maternal support

Postnatal care delivered by nurses is essential for monitoring maternal recovery and preventing postpartum complications. The review highlights that nurses conduct regular assessments of uterine involution, lochia, and vital signs during the postnatal period. Counseling on breastfeeding, nutrition, and personal hygiene forms an important component of postnatal nursing care. Nurses provide guidance on family planning methods and birth spacing. Community-based follow-up through home visits improves maternal compliance with postnatal care. Emotional and psychological support provided by nurses helps reduce postpartum stress. Limited postnatal follow-up remains a challenge in many regions. Strengthening nurse-led postnatal services can improve maternal health outcomes.^[10]

Essential newborn and infant care practices

Thermal care, breastfeeding, and infection prevention

The reviewed studies consistently emphasize that essential newborn care practices provided by nurses are fundamental to improving neonatal survival in developing countries. Thermal care is a primary focus of early newborn management, as hypothermia remains a significant contributor to neonatal morbidity and mortality. Nursing interventions such as immediate drying after birth, skin-to-skin contact between mother and newborn, and delayed bathing help maintain optimal body temperature. Nurses also play a key role in promoting early initiation of breastfeeding within the 1st h of life, which supports neonatal nutrition, enhances immunity, and strengthens mother–infant bonding. Exclusive breastfeeding counseling provided by nurses contributes to reduced risk of infections and improved growth outcomes. Infection prevention measures, including strict hand hygiene, clean cord care, and maintenance of a hygienic environment, are integral components of nursing practice. Nurses educate mothers on recognizing early signs of infection and the importance of hygienic newborn care at home. Despite these efforts, challenges such as inadequate equipment, overcrowded facilities, and limited staffing often affect the quality of care. Nevertheless, effective nursing interventions significantly reduce neonatal morbidity and mortality in low-resource settings.

Role of nurses in early newborn care

Nurses play a pivotal role in the early assessment, stabilization, and continuous monitoring of newborns during the immediate postnatal period. The reviewed literature highlights that nurses are primarily responsible for assessing vital signs, birth weight, reflexes, and overall neonatal health status. Early identification of danger signs such as respiratory distress, hypothermia, poor feeding, or jaundice allows timely intervention and referral, which is crucial for neonatal survival. Nurses provide

ongoing monitoring to ensure early detection of complications and prompt management. Education of mothers regarding breastfeeding techniques, thermal protection, hygiene, and newborn danger signs is an essential nursing responsibility. Emotional support and reassurance provided by nurses help mothers gain confidence in newborn care. Proper documentation and follow-up care ensure continuity of services and effective referral systems. In many developing countries, nurses serve as the main healthcare providers for newborns, particularly in rural and underserved areas. Strengthening neonatal nursing skills and resources can further improve early newborn care outcomes.^[11]

DISCUSSION

This review highlights the pivotal role of nurses in delivering comprehensive MCH services in developing countries, encompassing antenatal, intrapartum, postnatal, neonatal, and child healthcare. The findings indicate that nursing practices significantly contribute to improved service utilization, continuity of care, and preventive health outcomes, particularly in resource-limited and rural settings. Consistent with existing literature, nurses serve as frontline providers and are instrumental in health education, immunization, growth monitoring, and early identification of MCH risks. However, variations in practice quality were observed due to disparities in training, staffing, infrastructure, and availability of resources, which aligns with challenges reported in previous studies. The review underscores the need for strengthening nursing practice through continuous professional development, standardized clinical protocols, supportive supervision, and improved working conditions. From a policy and educational perspective, the findings emphasize the importance of investing in nursing workforce development, updating nursing curricula to reflect current MCH priorities, and implementing regular in-service training programs. Effective nursing practices were found to be directly associated with improved MCH outcomes, including reduced morbidity and mortality, increased utilization of healthcare services, and enhanced community awareness.^[12] Overall, strengthening MCH nursing practices is essential for achieving sustainable improvements in health outcomes and advancing national and global MCH goals in developing countries.^[13]

CONCLUSION

This review concludes that MCH nursing practices play a vital role in improving health outcomes in developing countries by ensuring comprehensive, continuous, and preventive care across the MCH continuum. Nurses serve as key providers in antenatal, intrapartum, postnatal, and child healthcare services, particularly in resource-constrained settings, contributing significantly to reduce maternal and child morbidity and mortality. Strengthening nursing practice through regular training, supportive supervision, standardized clinical guidelines, and adequate resource allocation is essential to enhance the quality and effectiveness of care delivery.

Policymakers and healthcare administrators should prioritize investment in the nursing workforce and integrate MCH competencies into nursing education and in-service programs. Future research should focus on evaluating the effectiveness of nurse-led interventions, exploring context-specific challenges, and generating evidence on innovative models of MCH nursing care to inform practice, policy, and education in developing countries.

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CONFLICT OF INTEREST

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