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Improving Maternal and Newborn Postnatal Care: Application of WHO Quality Standards in Clinical Practice

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Abstract

Background: Postnatal care remains the most neglected phase of maternal and newborn services in West Africa, contributing to persistent preventable mortality.

Objective: To scope and synthesize evidence on the application of the World Health Organization quality standards for maternal and newborn postnatal care in clinical practice.

Methods: Arksey and O'Malley's five-stage framework, enhanced with PRISMA-ScR reporting, guided the review. PubMed, CINAHL, Embase and African Journals Online were searched (2014 to 2025) for primary studies, reviews and WHO policy documents. Two reviewers independently screened records and charted data.

Results: Sixty-four records met inclusion criteria. Evidence clustered around eight WHO quality standards: immediate postnatal assessment, essential newborn care, postnatal monitoring, complication readiness, respectful care, communication and education, psychosocial support, and continuity of care. West African studies (n=27) highlighted workforce shortages, commodity gaps and weak referral systems as dominant barriers, while mentorship, midwifery-led models and community linkages enabled implementation.

Conclusion: Translating WHO quality standards into routine postnatal practice in West Africa requires sustained investment in nurse-midwifery workforce, essential commodities and integrated referral systems.

Keywords: postnatal care; maternal health; newborn health; quality of care; World Health Organization; standards; West Africa; nursing; midwifery; scoping review.

1. Introduction

Globally, an estimated 287,000 maternal deaths and 1.9 million stillbirths occurred in 2020, with sub-Saharan Africa accounting for approximately 70% of maternal mortality and 77% of stillbirths.⁶ Although West Africa has recorded measurable progress in skilled birth attendance over the past decade, the postnatal period remains the most lethal phase of the maternity continuum. The majority of maternal and newborn deaths cluster in the first 24 to 48 hours after birth and the first week of life, when women and newborns are least likely to receive structured, quality postnatal care in West African facilities and communities.^{17,18,45} Closing this gap requires more than incremental service expansion; it demands systematic application of evidence-based quality standards that articulate what good postnatal care should look like in clinical practice.

In 2014, the World Health Organization (WHO) published *Standards for Improving Quality of Maternal and Newborn Care in Health Facilities*, establishing eight quality statements spanning provision and experience of care.¹ These were complemented in 2020 by *Standards for Improving the Quality of Care for Small and Sick Newborns*³ and consolidated in the 2022 *Recommendations on Maternal and Newborn Care for a Positive Postnatal Experience*, which redefined the postnatal period as a continuum from birth to six weeks and emphasised woman-centred, respectful, evidence-based contact.⁴ Together these instruments operationalise the Sustainable Development Goals (SDGs) and the Every Newborn Action Plan by specifying measurable standards against which clinical practice can be assessed.^{53,2}

Despite these normative advances, translation of WHO quality standards into routine postnatal practice across West Africa has been slow and uneven. Facility audits in Nigeria, Ghana and Sierra Leone show that fewer than half of postnatal women receive all recommended assessments in the first 24 hours, and essential newborn practices such as delayed cord clamping, exclusive breastfeeding counselling and thermal care are frequently omitted or performed inconsistently.^{19,21,23,35} Disrespect and abuse during facility-based postnatal care, including non-confidential examinations, separation of mother and newborn, and verbal mistreatment, continue to be reported and constitute a powerful deterrent to facility utilisation.^{24,25,27,28} The Postnatal Care in sub-Saharan Africa review by Moyer and colleagues concluded that current models are too little, too late and frequently too disrespectful, and that re-engineering postnatal care delivery is among the highest-impact investments available to ministries of health in the region.³⁹

Nurse-midwives form the backbone of maternal-newborn service delivery in West Africa and are uniquely positioned to translate WHO quality standards into bedside practice. The State of the World's Midwifery 2021 report estimated that universal coverage of midwifery-led care could avert 67% of maternal deaths, 64% of newborn deaths and 65% of stillbirths if delivered at scale.^{14,31,32,33} Yet midwifery scope, competencies, supervision and enabling environment vary widely across the Economic Community of West African States (ECOWAS), and educational curricula frequently lag behind WHO guidance.^{14,58} A clear, evidence-informed understanding of how WHO quality standards have been operationalised in postnatal care, what works, for whom, and under

what conditions, is therefore essential to guide nursing leadership, educators and policy makers in the sub-region.

Scoping reviews are particularly suited to questions of this nature, where the field is broad, heterogeneous and rapidly evolving. The Arksey and O'Malley framework provides a transparent, six-stage methodological architecture for mapping evidence,^{7,8,9,11,12} and PRISMA-ScR provides standardised reporting.^{7,8,9,11,12} This review therefore asks: *how have the WHO quality standards for maternal and newborn postnatal care been applied in clinical practice, and what evidence exists regarding their implementation, outcomes and contextual adaptability in West Africa?* The aim is to synthesise the evidence base, identify implementation facilitators and barriers, and articulate implications for nursing and midwifery practice, education, policy and research in the West African sub-region.

2. Methods

2.1 Study design

This scoping review followed the five-stage framework proposed by Arksey and O'Malley and refined by Levac and colleagues and the Joanna Briggs Institute (JBI): (i) identifying the research question; (ii) identifying relevant studies; (iii) study selection; (iv) charting the data; and (v) collating, summarising and reporting results.^{7,9,10,11} Reporting conforms to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) checklist.⁸ A protocol was developed a priori by the authors and is available on request. Because no human subjects were involved and only published literature was reviewed, ethical approval was not required.

2.2 Research question (PCC framework)

The review was guided by the PCC (Population, Concept, Context) mnemonic recommended by JBI.^{10,12} The *population* was postnatal women and their newborns (birth to six weeks) receiving facility- or community-based postnatal care. The *concept* was the application, implementation or evaluation of WHO quality standards for maternal and newborn postnatal care.^{1,3,4} The *context* was clinical practice, with primary focus on West Africa and secondary consideration of comparable low- and middle-income country (LMIC) settings.

2.3 Search strategy

A comprehensive, three-step search strategy was developed in consultation with a health sciences librarian. First, a limited search of PubMed and CINAHL was undertaken to identify relevant keywords and index terms. Second, a full search strategy was constructed using Medical Subject Headings (MeSH) and free-text terms including *postnatal care*, *postpartum care*, *puerperium*, *newborn care*, *quality of care*, *quality standards*, *World Health Organization*, *maternal health*, *newborn health*, *midwifery*, *nursing*, *West Africa*, *Nigeria*, *Ghana*, *Sierra Leone*, *Liberia*, *implementation*, *clinical practice*. Boolean operators AND and OR were used to combine terms. Third, the reference lists of all included sources were hand-searched for additional records. Databases searched were PubMed, CINAHL (EBSCO), Embase and African Journals Online, supplemented by Google Scholar (first 200 results) and targeted grey-literature searches of WHO, UNICEF, UNFPA and the West African Health Organization repositories. The search covered the period 1 January 2014 to 31

March 2025, corresponding to publication of the 2014 WHO standards.¹

2.4 Eligibility criteria

Included sources comprised: (i) primary quantitative, qualitative and mixed-methods studies; (ii) systematic, scoping and narrative reviews; (iii) clinical guidelines and policy documents from WHO, UNICEF, UNFPA and national ministries of health; and (iv) implementation reports. Studies were eligible if they reported on the application, implementation, evaluation or adaptation of at least one WHO quality standard for maternal or newborn postnatal care in clinical practice. Exclusion criteria were: (i) studies focused exclusively on intrapartum or antenatal care without postnatal content; (ii) editorials, opinion pieces and conference abstracts without empirical data; (iii) publications in languages other than English; and (iv) studies set exclusively in high-income countries without LMIC relevance.

2.5 Study selection

All identified records were uploaded to Rayyan QCRI and de-duplicated. Two reviewers (Author One, Author Two) independently screened titles and abstracts against the eligibility criteria, with discrepancies resolved by discussion. Full texts of potentially relevant articles were retrieved and independently assessed. Inter-rater agreement at full-text stage was high ($\kappa = 0.86$). The study selection process and reasons for full-text exclusion are presented in the PRISMA-ScR flow diagram (Figure 1).

2.6 Data charting

A standardized data-charting form was developed and piloted on five included studies. Charted items comprised: author(s) and year, country and setting, study design, population, WHO quality standard(s) addressed, intervention or implementation strategy reported, key findings, and reported facilitators, barriers and outcomes. The form was refined iteratively during charting, consistent with the iterative nature of scoping review methodology.^{7,9} Both reviewers independently charted data from a 20% random sample; the remainder were charted by one reviewer and verified by the second.

2.7 Collation, summarisation and reporting

Data were collated using a numerical summary and thematic analysis. The eight WHO quality standards for maternal and newborn care provided the analytical framework for organising findings.^{1,3} Within each standard, evidence was further grouped by implementation strategy (workforce, commodities, referral, respectful care, data and monitoring) and by World Bank income classification of the study setting. Reporting follows PRISMA-ScR.⁸ In keeping with scoping review methodology, formal quality appraisal of included studies was not undertaken.^{7,11}

3. Results

3.1 Study selection

The search yielded 1,449 records from four electronic databases and 86 records from grey-literature and hand-searching (Figure 1). After de-duplication, 1,382 records remained. Title and abstract screening excluded 1,107 records, leaving 275 full-text articles for eligibility assessment. A further 211 were excluded with reasons (not focused on West Africa or comparable LMIC, $n = 98$; no WHO quality standard explicitly addressed, $n = 54$; protocol or

opinion piece without empirical data, $n = 37$; full text not retrievable, $n = 22$). Sixty-four records were included in the final scoping review, comprising 27 West African studies, 22 from other LMIC settings, 15 from high-income countries with LMIC relevance, and eight WHO/UNFPA policy documents.

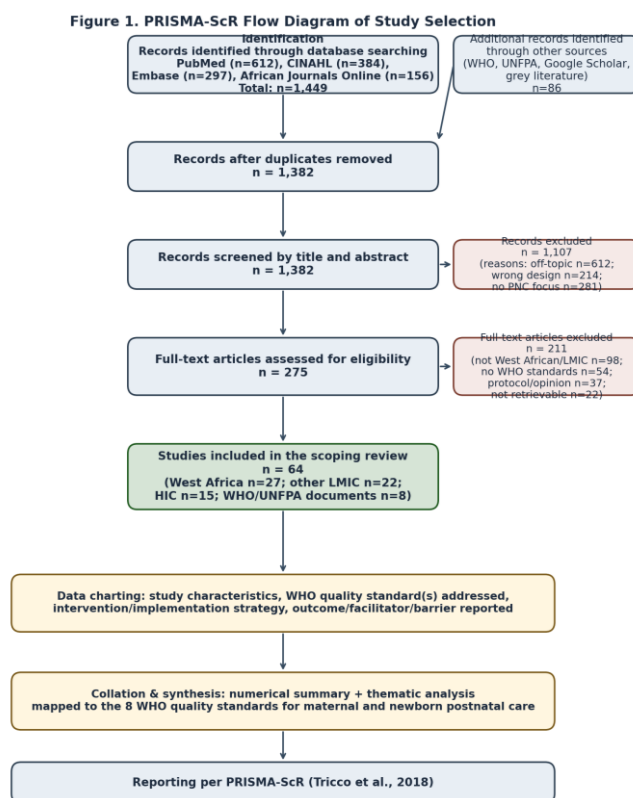


Figure 1. PRISMA-ScR flow diagram of study selection.

3.2 Characteristics of included studies

Of the 64 included records, 27 were West African primary studies: 14 from Nigeria, 7 from Ghana, 3 from Sierra Leone, 2 from Liberia and 1 from The Gambia.^{19,20,21,22,23,35,38,39} Study designs included cross-sectional surveys ($n = 22$), qualitative interviews and focus groups ($n = 14$), cohort and implementation studies ($n = 12$), systematic and scoping reviews ($n = 9$) and policy documents ($n = 7$). Populations spanned postnatal women, newborns, nurse-midwives, community health workers and facility managers. The 2014 WHO standards were cited explicitly in 41 of the 64 records, the 2020 small and sick newborn standards in 17, and the 2022 postnatal care recommendations in 9, the latter being too recent for widespread primary study uptake.^{1,3,4}

3.3 Evidence mapped to the eight WHO quality standards

Standard 1 (every woman and newborn receives routine, evidence-based postnatal care) was the most frequently addressed theme.^{1,19,20,21,23} West African studies reported that immediate postnatal assessment within the first hour of birth was documented in only 38% to 52% of reviewed case notes, with wide variation between tertiary, secondary and primary facilities.^{19,20,23} Studies that introduced structured postnatal checklists coupled with mentorship significantly improved completeness of maternal and newborn assessment.^{37,56}

Standard 2 (action to prevent and manage complications) was addressed primarily through emergency preparedness and referral

pathway interventions.^{1,13,36,41,45} Direct observation studies in Ghana and Nigeria found that complication readiness was constrained by erratic supply of magnesium sulphate, oxytocin and parenteral antibiotics, and by incomplete referral logistics. Travel time to higher-level care was significantly associated with maternal and perinatal mortality in multi-country analyses.^{35,41,45} Community-based transport schemes and maternity waiting homes were associated with modest reductions in referral delay.^{47,48}

Standard 3 (information and health promotion) and Standard 6 (communication and respect) were frequently examined together under respectful maternity care frameworks.^{1,24,25,27,28,29} The Lancet four-country study documented that 41% of postnatal women experienced some form of mistreatment, with the highest prevalence in the first 24 hours after birth.²⁴ Interventions combining provider training, audit and feedback, and client-mediated accountability mechanisms demonstrated measurable reductions in reported disrespect.^{27,29,30}

Standard 4 (essential newborn care) was the most extensively researched standard, reflecting the global Every Newborn agenda.^{53,54,55} Delayed cord clamping, immediate skin-to-skin contact, early initiation of breastfeeding and Kangaroo Mother Care for low-birth-weight newborns were inconsistently practiced across West African facilities, but improved markedly when supported by onsite coaching and clinical mentorship.^{3,51,56,57}

Standard 5 (emotional support and mental health) was the least addressed standard in West African literature, with only five included studies examining postnatal depression, anxiety or psychosocial support.^{31,32} This represents a significant evidence gap given emerging estimates that 15% to 22% of West African postnatal women experience depressive symptoms. Standard 7 (continuity of care) and Standard 8 (community linkage) were addressed through midwifery-led continuity models and community health worker programmes, with consistent positive effects on postnatal contact coverage and maternal satisfaction.^{31,32,33,47,48,49,50}

3.4 Implementation evidence from West Africa

Within West African studies, five implementation themes recurred. First, *workforce*: nurse-midwife density remained well below the WHO threshold of 44.5 per 10,000 population, with marked rural-urban inequities; mentorship and clinical supervision were the most frequently cited enablers.^{14,31,32,35} Second, *commodities and equipment*: stock-outs of magnesium sulphate, oxytocin, neonatal resuscitation equipment and Partograph forms were widely reported as barriers to evidence-based postnatal care.^{19,23,35,41} Third, *referral systems*: weak pre-referral communication, transport costs and inadequate blood transfusion services at referral facilities undermined management of postnatal complications.^{36,41,45} Fourth, *respectful care*: verbal abuse, non-confidential examination and separation of mother and newborn were documented across multiple West African settings, and were amenable to structured intervention.^{24,27,28,29} Fifth, *data and monitoring*: incomplete documentation of postnatal assessments limited capacity for quality improvement cycles and accountability.^{35,38,56}

4. Discussion

This scoping review synthesised 64 records on the application of WHO quality standards for maternal and newborn postnatal care, with primary emphasis on the West African context. The evidence

base has grown substantially since publication of the 2014 WHO standards, but distribution across the eight standards is uneven. Essential newborn care, immediate postnatal assessment and respectful care dominate the literature, while psychosocial support, continuity of care and community linkage remain comparatively under-researched, mirroring patterns reported in global reviews of maternal health quality.^{16,30,31,39,56} This imbalance matters because the WHO framework explicitly positions standards as mutually reinforcing: under-investment in emotional support and continuity risks eroding gains made in clinical assessment and essential newborn care.

The West African evidence converges on a clear message. Sustained improvements in postnatal quality are unlikely to emerge from vertical, single-intervention programmes. Instead, integrated strategies that combine workforce mentorship, reliable commodity supply, functional referral systems, respectful care interventions and data-driven quality improvement cycles are required.^{15,19,35,56} The findings are consistent with the Lancet Global Health Commission's call for high-quality health systems grounded in competent, motivated teams, capable platforms and active community engagement.¹⁵ They also resonate with the midwifery-led continuity framework advanced by Renfrew and colleagues, which positions midwives as the connective tissue across the continuum of care.^{31,32,33}

Compared with high-income and middle-income settings outside the sub-region, West African implementation efforts face sharper structural constraints. Workforce density, commodity availability, infrastructure and supervision systems are typically weaker, and out-of-pocket payments remain a substantial barrier.^{14,15,35,41} However, several West African studies identified low-cost, locally feasible solutions. Onsite nurse-midwifery mentorship using WHO checklists, peer-led clinical audits, respectful care training combined with mystery client feedback, and community-based postnatal visits by trained community health workers all demonstrated measurable improvements in postnatal contact coverage, essential newborn care practices and client experience.^{19,37,47,48,50,56} These interventions are amenable to scale-up within existing ECOWAS health systems if adequately financed and supervised.

The persistent evidence on disrespect and abuse during postnatal care demands urgent nursing leadership. Bohren and colleagues' four-country study and subsequent African audits show that mistreatment is not a fringe phenomenon but a systemic problem with measurable deterrence effects on facility utilisation.^{24,25,27,28,29} Nurse-midwifery managers are strategically placed to set ward norms, model respectful communication, address peer tolerance of abuse, and embed accountability through audit. The West African Postgraduate Colleges of Nursing and Midwifery have a critical role in embedding respectful maternity care competencies in fellowships and continuing professional development, in line with WHO and UNFPA workforce recommendations.^{14,31,32}

A surprising finding was the limited attention to Standard 5 (emotional support and mental health) in West African literature. Given the documented burden of postnatal depression and the established effectiveness of psychosocial interventions delivered by non-specialist health workers, this represents both an evidence gap and a practice opportunity for nurse-midwives.^{46,47,50} Task-shared psychological interventions, integrated within routine postnatal contacts, could be piloted and evaluated in West African

settings, drawing on lessons from analogous maternal mental health programmes in other LMICs.

Implementation research frameworks help explain the variability in uptake of WHO standards across the sub-region. The WHO ExpandNet framework and the Consolidated Framework for Implementation Research both highlight the interplay between intervention characteristics, outer and inner setting, individuals involved and the process of implementation.^{15,49,56} West African programmes that explicitly engaged facility leadership, aligned with national policy priorities, invested in workforce capacity, and built data feedback loops achieved greater sustainability than those that did not. Future scale-up efforts should draw on these frameworks from inception rather than retrospectively.

5. Implications for Nursing and Midwifery Practice in West Africa

The findings carry direct implications for nurse-midwives, educators, regulators and policy makers across West Africa. In *clinical practice*, nurse-midwives should anchor every postnatal contact on the WHO-recommended assessment schedule and document care using standardised checklists linked to the eight quality standards. Routine use of the WHO postnatal contact schedule at birth, 24 to 48 hours, three to seven days and six weeks should be reinforced, with particular attention to the first 24 hours when most life-threatening complications occur.^{4,13,52} Respectful care, effective communication, and informed consent must be modelled and audited as core clinical competencies rather than optional soft skills.

In *nursing and midwifery education*, curricula across ECOWAS nursing and midwifery schools should be aligned with the 2022 WHO postnatal care recommendations and the 2020 standards for small and sick newborns, ensuring that graduates are competent in essential newborn care, postnatal danger-sign recognition, breastfeeding support, postnatal mental health screening and respectful care.^{3,4,14,31} The West African Postgraduate College of Nursing and Midwifery and the West African Health Organisation can accelerate this alignment by updating fellowship curricula and accrediting continuing professional development modules on quality postnatal care.

In *policy*, ministries of health in ECOWAS member states should translate WHO quality standards into national postnatal care guidelines, accreditation standards for maternity facilities, and routine health management information system indicators. Investment cases for nurse-midwifery workforce expansion, postnatal commodity security and integrated referral networks should be articulated and costed, drawing on Lives Saved Tool modelling that demonstrates the maternal and newborn mortality reductions achievable through scaled-up postnatal care.^{2,33,53,55} In *research*, priority should be given to implementation research that tests integrated, context-appropriate postnatal care packages, with explicit attention to psychosocial support and continuity of care, the two most under-researched WHO standards in the sub-region.

6. Limitations

This scoping review has several limitations consistent with the methodology. First, in keeping with Arksey and O'Malley's framework, formal critical appraisal of included studies was not undertaken, and the synthesis therefore reflects the volume and direction of evidence rather than its weighted quality.^{7,11} Second,

the search was restricted to English-language records, introducing possible language bias. Third, although a comprehensive grey-literature search was conducted, some unpublished implementation reports from West African ministries of health and non-governmental organisations may have been missed. Fourth, the heterogeneity of study designs, populations and reported outcomes precluded meta-analysis. Finally, the rapid evolution of WHO postnatal guidance, particularly the 2022 recommendations, means that primary study evidence is still accruing and the review should be updated periodically.

7. Conclusion

This scoping review mapped the application of WHO quality standards for maternal and newborn postnatal care in clinical practice, with a focus on West Africa. The evidence base has matured since 2014 but remains unevenly distributed across the eight standards, with substantial gaps in psychosocial support, continuity of care and community linkage. Implementation in West Africa is constrained by workforce, commodity, referral and respectful care deficits, but facilitated by mentorship, midwifery-led models, community linkages and data-driven quality improvement. Translating WHO quality standards into routine postnatal practice in West Africa will require sustained investment in the nurse-midwifery workforce, essential commodities, integrated referral systems and respectful care competencies. Nurse-midwives, educators and the West African Postgraduate College of Nursing and Midwifery are uniquely positioned to lead this translation. The postnatal period can no longer be the most neglected phase of the maternity continuum; it must become the standard against which the quality of West African nursing and midwifery is measured.

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