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Factors influencing decision making for medical interventions during childbirth in West Africa: a systematic review protocol

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ADMINISTRATIVE INFORMATION

Support - This study is self-funded and did not receive any specific financial support from public, commercial or non-profit funding agencies. It is being carried out as part of an academic research initiative and requirement.

Review Stage at time of this submission - Formal screening of search results against eligibility criteria.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 22 June 2026 and was last updated on 22 June 2026.

INTRODUCTION

Review question / Objective What factors influence decision-making for medical interventions during childbirth in West Africa?

The objective of this systematic review is to identify and synthesize evidence of the factors that influence decision-making for medical interventions during childbirth in West Africa.

Rationale Medical interventions during childbirth such as caesarean section, induction and augmentation of labour are critical for preventing complications and saving the lives of mothers and babies (Peters et al., 2018; Westergren et al., 2021). However, decisions to use these interventions are not based on clinical need alone; they are also influenced by women's preferences, provider judgement, cultural beliefs and health system constraints (Coates et al., 2021; Lightly et al., 2025).

In West Africa, where maternal mortality remains high, these decisions are very important. The region faces challenges including limited access to skilled care, referral delays and uneven availability of emergency obstetric services, alongside concerns about both underuse and overuse of interventions (Coates et al., 2021). Understanding how and why such decisions are made during childbirth is therefore essential to improving the quality and safety of childbirth care.

Although studies have examined these childbirth interventions in West African countries, evidence on these decision-making processes remains fragmented and often focused on specific contexts. This review aims to synthesize existing evidence to provide a clearer and more comprehensive understanding of the factors shaping these decisions. The findings will help inform policy, strengthen clinical practice and support more equitable and evidence-based use of childbirth interventions.

Condition being studied Decision-making for medical interventions during childbirth, such as caesarean section, induction and augmentation of labour, etc., within the context of maternal care in West Africa. The review focuses on the clinical, socio-cultural, provider-related and health system factors that influence how these intervention decisions are made.

METHODS

Search strategy A thorough literature search was conducted to identify relevant studies examining factors influencing decision-making for medical interventions during childbirth in West Africa. The search covered studies published between January 1990 and December 2025 to enable the review to examine changes in clinical practice, health system factors, sociocultural influences and policy developments that are affecting decisions regarding childbirth interventions while ensuring that the evidence remained relevant to contemporary maternity care.

Ten electronic databases were systematically searched: PubMed/MEDLINE, EBSCOhost, CINAHL Complete, Scopus, ScienceDirect, Wiley Online Library, African Journals Online (AJOL), SpringerLink, Taylor & Francis Online, and Google Scholar.

The search strategy was developed using standard systematic review procedures in accordance with PRISMA-S guidelines. The review question was structured into key concepts, including decision-making, medical interventions during childbirth, influencing factors and West Africa. Relevant keywords, synonyms and spelling variants were identified for each concept, alongside controlled vocabulary terms such as Medical Subject Headings (MeSH).

Search terms within each concept were combined using the Boolean operator OR while the main concepts were combined using AND. Truncation, phrase searching and field tags were applied where appropriate to enhance sensitivity and specificity.

The initial search strategy was developed in PubMed/MEDLINE and subsequently adapted for use in other databases to account for differences in indexing and syntax. The search process was conducted by two independent reviewers in consultation with a trained medical librarian to ensure rigor and completeness. The full search strategies, including database-specific search strings and search dates, were documented to ensure transparency and reproducibility. Grey literature and reference lists of included studies were also screened.

Participant or population The review included studies involving pregnant women, women in labour or childbirth and postpartum women receiving maternity care in West African countries. It also included studies reporting on healthcare providers involved in decision-making during childbirth such as obstetricians, midwives, nurses and other skilled birth attendants as well as birth companions or family members participating in the decision-making process. The population was not restricted by age, parity or socioeconomic status, provided participants are involved in or affected by decisions regarding medical interventions during childbirth within the West African context.

Intervention Medical interventions during childbirth, including caesarean section, induction of labour, augmentation of labour and operative vaginal delivery, etc. The review will focus on factors influencing decision-making regarding the use of these interventions rather than evaluating their clinical effectiveness.

Comparator Not applicable. This review does not aim to compare interventions but to identify and synthesize factors influencing decision-making for childbirth interventions.

Study designs to be included Quantitative, qualitative and mixed-methods studies were included such as cross-sectional studies, cohort studies, case-control studies, randomized controlled trials, retrospective reviews, qualitative interviews, focus group discussions and mixed-methods research reporting empirical data on decision-making for childbirth interventions. These studies were included to enable capturing of all vital information from multiple study perspectives.

Eligibility criteria The eligibility criteria for this systematic review were defined a priori to ensure consistency, transparency and alignment with the review objectives.

Inclusion Criteria: Studies were considered eligible for inclusion if they:

- (i) Examined factors influencing decision-making for medical interventions during childbirth.
- (ii) Were conducted in one or more West African countries.
- (iii) Involved pregnant women, women in labour or childbirth, postpartum women, birth companions or healthcare providers involved in childbirth care.
- (iv) Reported empirical findings on determinants of decision-making for obstetric interventions such as caesarean section, induction of labour, augmentation of labour or operative vaginal delivery.

Exclusion Criteria: Studies were excluded if they:

- (i) Were conducted outside the West African sub-region.
- (ii) Focused solely on clinical outcomes or rates of obstetric interventions without examining decision-making factors.
- (iii) Were editorials, commentaries, conference abstracts, study protocols or review articles.
- (iv) Did not contain primary empirical data relevant to decision-making for childbirth interventions.

Information sources The review will use multiple information sources to ensure comprehensive coverage of relevant literature. Electronic databases to be searched include PubMed/MEDLINE, EBSCOhost, CINAHL Complete, Scopus, ScienceDirect, Wiley Online Library, African Journals Online (AJOL), SpringerLink, Taylor & Francis Online, and Google Scholar.

In addition to database searching, grey literature and reference lists of included studies will be screened to identify additional relevant articles. Where necessary, attempts may be made to contact study authors for clarification or to obtain missing information.

The review will primarily focus on peer-reviewed published literature, but efforts will also be made to capture relevant evidence indexed in regional databases such as AJOL to ensure representation of African research. All sources will be documented to ensure transparency and reproducibility.

Main outcome(s) The main outcome of this review will be the identification and synthesis of factors influencing decision-making for medical interventions during childbirth in West Africa. These will include the clinical indications, socio-demographic characteristics, psychosocial influences, provider-related factors and health system determinants. No effect measures or specific timing parameters will apply, as this is a qualitative and mixed-methods synthesis employing narrative thematic analysis.

Additional outcome(s) Secondary outcomes will include the identification of the predominant decision-maker in childbirth intervention decisions, geographic distribution of evidence across West African countries and identification of understudied contexts, methodological patterns and quality of existing primary studies and some identification of gaps in the literature regarding specific interventions such as induction of labour, augmentation of labour and operative vaginal delivery, which are less studied compared to caesarean section. These secondary outcomes will inform recommendations for future research and policy priorities in the sub-region.

Data management All records identified through database searches were imported into Zotero (version 7.0.11) for reference management and deduplication. Deduplicated records were subsequently exported to Rayyan (version 1.7, web-based; Rayyan Systems Inc., Doha, Qatar) for title and abstract screening. A standardized, piloted data extraction form will be developed by the authors, informed by the JBI Manual for Evidence Synthesis recommendations and will be used by the two independent reviewers. Extracted data will be organized into structured evidence tables capturing study characteristics, intervention type, population, decision-makers and factors influencing decision-making. All discrepancies will be resolved through discussion or third-reviewer adjudication. Data files will be stored securely and accessible only to the review team.

Quality assessment / Risk of bias analysis The methodological quality of included studies will be independently assessed by two reviewers using the Joanna Briggs Institute (JBI) critical appraisal checklists appropriate to each study design including checklists for cross-sectional studies, cohort studies, qualitative studies and mixed-methods studies. Domains assessed will include appropriateness of study design, participant selection, exposure and outcome measurement, confounder management and adequacy of analysis. Disagreements will be resolved through discussion or third-reviewer consultation. Quality assessment findings will not be used as grounds for exclusion but will inform interpretation of the synthesized evidence and methodological limitations will be noted in the narrative synthesis.

Strategy of data synthesis Due to the methodological, clinical and contextual heterogeneity of included studies, a narrative thematic synthesis approach will be employed. Extracted data will be synthesized descriptively and organized by intervention type and by thematic domains of decision-making influences such as clinical indications, socio-demographic determinants, psychosocial influences, provider-related factors and health system conditions. Similarities and differences across countries, settings and study designs will be compared. Findings will be presented in evidence tables alongside narrative descriptions to highlight recurring patterns, contextual variations and literature gaps, enabling integrated interpretation of both quantitative trends and qualitative insights.

Subgroup analysis Subgroup analyses will be done to explore potential variations in decision-making factors according to (1) country or sub-

regional context within West Africa; (2) type of medical intervention; (3) study setting; (4) study design and (5) the primary decision-maker identified. These subgroup analyses will be exploratory and descriptive in nature given the narrative synthesis approach adopted. Where insufficient studies existed within a subgroup, findings will be noted as limited and interpreted with caution.

Sensitivity analysis A sensitivity analysis was planned to assess the robustness of the review findings. This will be done by: (1) excluding studies rated as low methodological quality based on JBI critical appraisal to examine whether their inclusion materially altered thematic conclusions; (2) restricting the analysis to peer-reviewed, published studies only, excluding any grey literature retrieved; and (3) examining findings separately for studies conducted in some countries to assess whether conclusions hold when these countries' literature is considered in isolation. Because this review will use a narrative synthesis design, sensitivity analyses will be conducted descriptively, and any resulting changes in interpretation will be noted transparently in the review findings.

Language restriction Yes, a language filter was imposed. Only studies published in English Language were included in the search due to feasibility and language limitations.

Country(ies) involved This review is being carried out in Ghana and Nigeria. Authors are affiliated with institutions in Ghana and Nigeria.

Other relevant information This systematic review focuses exclusively on the West African sub-region, defined as the 16 member states of the Economic Community of West African States (ECOWAS): Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo. The review adopts a broad conceptualization of decision-making, encompassing provider-initiated, woman-initiated and shared decisions. The inclusion of multiple intervention types (caesarean section, induction, augmentation, operative vaginal delivery, etc.) allows for cross-intervention comparison. The review used PRISMA 2020 guidelines for reporting and PRISMA-P for the protocol development. The JBI Manual for Evidence Synthesis informed data extraction and appraisal.

Keywords Decision-making; caesarean section; childbirth interventions; induction of labour;

augmentation of labour; operative vaginal delivery; obstetric care; maternal health; West Africa.

Dissemination plans The findings of this systematic review will be submitted for publication in a peer-reviewed international journal in the fields of midwifery, obstetrics or global maternal health. Findings will also be presented at relevant national and international conferences on reproductive and maternal health. A summary of key findings will be shared with relevant stakeholders, including policymakers, health facility managers, and professional bodies in West Africa to inform clinical guidelines and policy. The review will be made openly accessible to maximize reach within the sub-region.

Contributions of each author

Author 1 - Cynthia Yaba Kumah - Conceptualized the review, developed the protocol, conducted database searches, screened studies, extracted data, appraised quality and drafted the manuscript.

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