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Systematic Review

Evaluating the efficacy of midwifery led-care unit for optimizing maternal and infant health outcomes in India: an evidence based systematic review

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ABSTRACT

The establishment of midwife-led care units (MLCUs), a model in which midwives play pivotal roles in optimizing maternal and neonatal outcomes with minimal interventions, has shown promise in elevating care quality and enhancing childbirth experiences. This article examines the requisite investments for incorporating MLCUs into the public health framework by analysing their merits, contemporary maternal mortality trends, midwives' functions, pertinent contextual factors, and recent innovations in Indian midwifery practices. The midwifery-led care approach is underpinned by the philosophy that views pregnancy and childbirth as natural physiological processes. Employing midwives, especially in low-risk pregnancies, offers both adequate and economically viable care. India's government has commenced the integration of midwifery services nationwide to enhance care quality, equity, and efficiency, while reducing the strain on tertiary healthcare facilities. The World Health Organization's designation of 2020 as the "Year of the Nurse and Midwife" underscored the critical role that these professionals play in maintaining high-quality healthcare. Moreover, garnering support from both medical practitioners and the general public is essential for successful future development and implementation of MLCUs across India.

Keywords: Efficacy, Midwifery led-care unit, Optimizing maternal outcome, Infant health outcomes, Evidence based

INTRODUCTION

The establishment of 'midwifery-led care units' is envisioned at 'LaQshya' certified public health facilities with high caseloads. Graduates of the midwifery programme were stationed at these units to provide continuous delivery services. It is crucial that midwives be deployed collectively rather than individually, as the measurable impact of the midwifery program on care quality can only be determined through the implementation of these specialized units. The allocation of midwives should be proportional to the facility's caseload. Nevertheless, the following minimum staffing requirements must be met at respective facility levels a minimum of 16-18 midwives district hospital a minimum of 6-8 midwives sub district hospital/community health

center and a minimum of four midwives this strategic deployment aims to optimize the effectiveness of midwifery services and ensure comprehensive care delivery across various healthcare settings. The advancement of maternal-child health is crucial for the healthcare development of any nation.[1] Despite significant global investments in maternal-child health over the years, related issues continue to be a major international health concern, particularly in developing countries.[2] This article examines the necessary investments for incorporating midwife-led care units (MLCUs) into India's public health system by analyzing their benefits, current maternal mortality trends, midwives' roles, relevant context, and recent progress in Indian midwifery practice.

The prevalence of maternal mortality is also high. In 2020, approximately 287,000 women lost their lives due to pregnancy and childbirth-related complications. A staggering 95% of these fatalities occurred in low- and lower-middle-income countries, with the majority being potentially avoidable.[3] This analysis employs the sustainable development goal (SDG) regions and sub-regions. Sub-Saharan Africa and Southern Asia collectively accounted for approximately 87% (253,000) of the estimated global maternal deaths in 2020. Sub-Saharan Africa alone contributed to about 70% of these fatalities (202,000), while Southern Asia represented approximately 16% (47,000).3

Worldwide perspective: maternal outcome

Maternal health remains a critical global health issue with unacceptably high rates of maternal mortality and morbidity, particularly in developing countries. Despite efforts to strengthen maternal health services, the lives of millions of women of reproductive age are still at risk due to preventable pregnancy-related complications.[1-3] The global MMR has declined from 339 in 2000 to 223 in 2020. The average annual rate of reduction (ARR) in the global MMR during the 2000-2020 periods was 2.07%, while India's MMR declined by 6.36%, which is higher than the global decline.

Every day, approximately 800 women die from preventable causes related to pregnancy and childbirth, and 99% of these deaths occur in developing countries.[1] The global maternal mortality ratio was 210 maternal deaths per 100,000 live births in 2013, down from 380 maternal deaths per 100,000 live births in 1990.[2] However, progress has been slow, and many low- and middle-income countries will not reach the Millennium Development Goal 5 target of a 75% reduction in maternal mortality by 2015.[3] The global MMR has declined from 339 in 2000 to 223 in 2020. The average annual rate of reduction (ARR) in the global MMR during the 2000-2020 periods was 2.07%, while India's MMR declined by 6.36%, which is higher than the global decline.[4] Although maternal mortality has declined globally, the burden of severe maternal outcomes remains unacceptably high, especially in developing regions. Sub-Saharan Africa continues to have the highest maternal mortality ratio, at more than 450 maternal deaths per 100,000 live births.[5]

India perspective: maternal outcome

In recent decades, India, a country with a rich cultural heritage and a population of over 1.3 billion, has made significant strides in improving maternal health outcomes. Despite considerable progress, India still faces significant challenges in addressing severe maternal outcomes, particularly in rural and socioeconomically disadvantaged areas. India's monumental efforts to reduce the Maternal Mortality Ratio (MMR) by an impressive 70% between 2000 and 2020 positioned the country to achieve the Sustainable Development Goal (SDG) target of an MMR below 70 before 2030. This remarkable progress has saved the lives of thousands of women across the country, particularly those from marginalized communities.[6] The group (Group (MMEIG) provides global estimates of the MMR. According to the UN MMEIG 2020 report, "Trends in maternal mortality 2000 to 2020," the MMR in India has declined from 384 in 2000 to 103 in 2020.

Midwife-led care units: overview

Midwife-led care units have emerged as significant alternatives to traditional hospital-based maternity care, offering a more personalized and holistic approach to pregnancy, childbirth, and postpartum care. Evidence suggests that midwife-led care can lead to improved maternal and neonatal outcomes, reduced interventions, and greater patient satisfaction.[7-10]

One of the key benefits of midwife-led care units is the focus on continuity of care, where the same midwife or a small team of midwives provides support throughout pregnancy, labor, and the postpartum period. This approach has been shown to decrease neonatal deaths by 16% and preterm births by 24%, as well as to improve psychosocial and public health outcomes. Midwives in these units provide comprehensive obstetric and newborn care, addressing not only health outcomes but also the overall well-being of the mother and child, including support for bonding and family participation.[8] Midwife-led care units can be located either within hospitals or standalone facilities, and both models have demonstrated positive results. In-hospital care units have been particularly beneficial in improving access to maternal health care and addressing challenges with referral systems.[8] Randomized controlled trials have compared midwife-managed care with shared care, finding that midwife-managed care produces fewer interventions, similar outcomes and complications, and greater satisfaction with care.[7]

METHODS

Existing literature suggests that midwifery-led care units can significantly improve maternal and infant health outcomes in India. Interventions to provide culturally

appropriate maternity care services have largely improved women's use of skilled maternity care; factors related to the implementation of these interventions have important implications for their success.[11] Midwife-led care models have been found to be associated with a range of positive outcomes, including increased likelihood of being attended at birth by a known midwife, reduced risk of fetal loss before 24 weeks of gestation, reduced likelihood of requiring regional analgesia or instrumental birth, and increased likelihood of spontaneous vaginal birth, breastfeeding initiation, and feelings of control. Additionally, the use of digital clinical decision support tools has been shown to have the potential to improve the quality of intrapartum and postpartum care, although more robust research is needed to fully understand the impact of such technologies.[12] However, the available evidence also suggests that there are significant challenges in implementing and scaling up midwifery-led care units in India. Factors such as stakeholder perspectives, resource availability, and cultural norms can all play a role in the success or failure of these interventions

Search strategy

An extensive review of the literature was undertaken, encompassing a wide array of databases including PubMed, Scopus, Web of Science, and Google Scholar. Additionally, the websites of numerous obstetrics and Gynecology organizations, professional associations, and the Government of India Guidelines were consulted. The search employed key terms and phrases such as "maternal health," "newborn health," "midwifery practice," "nurse practitioner in midwifery," "midwives," "severe maternal and neonatal outcome," and "midwife-led care unit." To ensure comprehensive coverage, the reference lists of the selected articles were examined for further relevant sources. Following the literature selection process, a thorough assessment and synthesis of the findings was conducted. The resulting review article was structured around several subthemes: the global and Indian contexts of severe maternal outcomes, the impact of midwives on maternal and newborn health, midwifery practices both in India and internationally, and prospective developments in Indian midwifery.

Literature review: evidence-based review

The healthcare system in India offers minimal autonomous midwifery-led care for women throughout pregnancy, childbirth, and the postpartum period, in contrast to many other countries.[4] This review investigates the effectiveness of midwifery-led care to demonstrate the necessity of implementing an alternative care delivery model (i.e., MLCUs) in India. Such a model aims to enhance maternal and newborn survival rates, decrease maternal and neonatal mortality and morbidities, reduce excessive medicalization during pregnancy and childbirth, and uphold women’s dignity during childbearing. By presenting this analysis, we seek to encourage the incorporation and strengthening of midwifery services within India's current public health framework, following the successful examples set by nations such as the United Kingdom, Sweden, and Australia.[3,12]

RESULTS

Midwife-led care units can be located either within hospitals or standalone facilities, and both models have demonstrated positive results. In-hospital care units have been particularly beneficial in improving access to maternal health care and addressing challenges with referral systems.8 Randomized controlled trials have compared midwife-managed care with shared care, finding that midwife-managed care produces fewer interventions, similar outcomes and complications, and greater satisfaction with care.[7] The present guidelines, prepared based on a series of in-depth consultations with National and International experts, are developed to support various states in rollout of midwifery services. These guidelines will cover all areas related to midwifery programs, such as education, regulation, human resources and career progression, support structures, operational models in aspirational districts and urban areas, and monitoring and research priorities.

Introduction of the midwifery model of care for normal births in midwifery-led units of public health facilities. They also include guidance for the education and training of midwifery educators and NPM in line with international standards of skills and competencies. They also provide options to integrate this model of care in the current public health system to contribute to achieving the SDGs

Midwifery-led care unit competencies

Midwifery-led care, which is an evidence-based approach, has demonstrated efficacy in enhancing maternal support. Optimal MLCUs are characterized by the presence of skilled midwives who facilitate childbearing women through care that promotes physiological normalcy in pregnancy and childbirth, while advocating for minimal intervention during vaginal deliveries.[13-15] In their provision of comprehensive care, midwives adhere to principles of respect, empathy, and human rights advocacy, ensuring the implementation of competent, evidence-based practices that elevate the quality of midwifery services. The utilization of midwives fosters patient-centered decision-making and encourages collaboration with other healthcare professionals to provide holistic care for women, newborns, families, and communities.[16] Midwives judiciously allocate resources and initiate timely referrals when complications arise (Table 2). Delineates the standards for optimal philosophy-based care established by the international confederation of midwives (ICM) within this context.

Current research on midwifery-led care units

The role of traditional birth attendants has been a subject of ongoing debate in the global health community.[17] While

the WHO and other major organizations have moved to deemphasize their role, some literature suggests that traditional birth attendants may still hold value in certain contexts, particularly in low-resource settings where access to skilled birth attendance remains limited.[17] At the same time, research has highlighted the critical role of midwives as frontline providers of maternal healthcare, with in-depth knowledge of their patients' experiences and the contextual factors impacting care quality.[18,19] Qualitative studies have identified a range of factors that contribute to high-quality midwifery care, including broad professional competencies, patient-centered approaches, and supportive healthcare systems.[19]

Midwifery-led care models have been shown to offer a range of benefits such as increased continuity of care, reduced obstetric interventions, and higher patient satisfaction. As policymakers in India consider strategies for improving maternal and infant health outcomes, the potential advantages of midwifery-led care units warrant further examination. According to a recent Cochrane review, women who received midwife-led care were nearly eight times more likely to be attended to at birth by a known midwife, 21% less likely to experience fetal loss before 24 weeks of gestation, 19% less likely to require regional analgesia, 14% less likely to undergo instrumental birth, and 18% less likely to have an episiotomy. They were also significantly more likely to have a spontaneous vaginal birth, initiate breastfeeding, and feel in control of their birthing experience.[20]

Gaps in understanding midwifery-led care efficacy

A growing body of evidence suggests that midwife-led care can improve the safety, effectiveness, and efficiency of maternity services.[20] Midwifery-led units have emerged as an innovative approach to transforming maternity care globally, promoting women-centered care, choice, control, and continuity.[21] Research indicates that women who received midwife-led care were nearly eight times more likely to be attended at birth by a known midwife, were 21% less likely to experience fetal loss before 24 week of gestation, and had significantly better outcomes across several indicators.[20] However, the implementation and effectiveness of midwifery-led care units in the Indian context remain understudied. Factors related to the cultural context, healthcare system, and local community engagement can influence the success of these interventions.[22]

Efficacy of midwifery led-care unit for optimizing maternal and infant health outcomes

A comprehensive evidence-based systematic review assessed the efficacy of midwifery-led care for vaginal births by examining various maternal and neonatal outcomes. The evaluation criteria included delivery modes (comparing Caesarean sections and instrumental births), episiotomy rates, birth outcomes (including live births, stillbirths, early neonatal deaths, and preterm births), 5-minute APGAR scores, infant birth weight, admission to neonatal intensive care units, and initiation of breastfeeding within the first hour postpartum. The review's conclusions revealed that midwifery-led care substantially improved both maternal and neonatal outcomes throughout the perinatal period, from pregnancy through the early postpartum period, without any observed negative consequences (Table 3).

One finding from the systematic review indicated that midwifery-led care significantly reduced the incidence of birth asphyxia and postpartum haemorrhage <0.0001.[23] These findings were corroborated by evidence demonstrating improved outcomes and fewer medical interventions among women receiving midwifery-led care.[8]

The results revealed that the rates of emergency Caesarean sections, vaginal births, episiotomies, and neonatal admission time in a neonatal intensive care unit were significantly negatively associated with midwifery-led care. The included studies also demonstrated that the odds of early initiation of exclusive breastfeeding, low birth weight, and rate of preterm births were not significantly associated with midwifery-led care.[8,24,25]

Table 1: Summary of quality assessments using the JBI appraisal checklist, 2020.

Authors	Items (Q) on Joanna Briggs institute instrument											Raw score %	Overall risk assessment
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11		
Azam et al[26]	1	1	1	1	1	1	0	1	1			8/9=88.8	Low
Oosthuizen et al[23]		1	1	1	1	1	1	0	1	1	0	1	9/11=81.8	Low
Chunyi et al[27]		1	1	1	1	1	1	1	1	1			9/9=100	Low
Xiu et al[28]		1	1	1	1	1	1	1	0	1			8/9=88.8	Low
Ngai et al[25]		1	1	1	0	1	1	1	1	1	1	1	10/11=90.9	Low
Solomon et al[29]		1	1	1	1	1	1	1	1	1			9/9=100	Low
Berit et al[30]		1	1	1	1	0	1	1	1	1	1	1	10/11=90.9	Low
Jing et al[31]		1	1	1	1	1	1	1	1	1	0	1	10/11=90.9	Low
Geetha et al[32]		1	0	1	1	0	1	U	1	1			6/9=66.6	Moderate

Yes=1, No= 0, U= Unclear and unapplicable

Table 2: The specific areas and gaps in the current curriculum in nurse practitioner in midwifery identified that require inclusion and additional time (6 months) to reach ICM standards.

Competencies	International confederation of midwives (ICM, 2013)	Nurse practitioner in midwifery course gaps
Social, epidemiological and cultural context	Midwives have the requisite knowledge and skills from obstetrics, neonatology, the social sciences, public health and ethics that form the basis of high quality, culturally relevant, appropriate care for women, newborns, and childbearing families.	Human rights, gender-based violence (GBV). Respectful care: non-judgmental, non-discriminatory behaviour. Community audit and death case review
Pre-pregnancy care and family planning	Midwives provide high quality, culturally sensitive health education and services to all in the community in order to promote healthy family life, planned pregnancies and positive parenting.	Cultural sensitivity/cultural appropriateness. GBV, emotional abuse and physical neglect. Female genital mutilation
Care during pregnancy	Midwives provide high quality antenatal care to maximize health during pregnancy and that includes early detection and treatment or referral of selected complications.	Malaria in pregnancy. Birth planning. Prevention of smoking, alcohol abuse, drug abuse
Care during labour and birth	Midwives provide high quality, culturally sensitive care during labour, conduct a clean and safe birth and handle selected emergency situations to maximize the health of women and their newborns	Provision of safe environment for mother and infant to promote attachment/bonding. Evidence indicates lack of skills in addressing pre-eclampsia/eclampsia
Postnatal care (Women)	Midwives provide comprehensive, high quality, culturally sensitive postpartum care for women.	More skills needed in general. Attachment and bonding. Care for bereaved families. Postnatal mental health
Postnatal care (Newborn)	Midwives provide high quality, comprehensive care for the essentially healthy infant from birth to two months of age	Skin-to-skin contact, rooming-in. Breastfeeding support. Care for bereaved families
Abortion-related care	Midwives provide a range of individualized, culturally sensitive abortion-related care services for women requiring or experiencing pregnancy termination or loss that are congruent with applicable laws and regulations and in accord with national protocols	Psychological support

Table 3: Evidence based included study on the efficacy of midwifery led-care unit for optimizing maternal and infant health outcomes.

S. No.	Authors/Year	Study design	Intervention description	Outcomes measured
1	Azam et al[26]	Quasi-experimental research design was select the 200 (MLC= 100 SC=100) pregnant women by the using of purposive sampling technique.	Midwives follow the selected mothers using the designed continuous care model through a team of midwives, and mothers access care every time by responsible midwives.	Mode of delivery (Caesarean section, vaginal birth), Early initiations of lactation.
2	Oosthuizen et al[23]	Longitudinal research design was select the 24594 study participants pregnant women by the using of purposive sampling technique.	'CLEVER' intervention package in the five intervention units using observational methods and then implementations were carried out following high-priority areas: essential childbirth and new-born care including labour monitoring; complications; and management of maternal and new-born infections.	Reduced fresh stillbirths, meconium aspiration and birth asphyxia.
3	Chunyi et al[27]	Randomized controlled trial research design were select the 110 (MLC=55	The midwifery care was provided by a group of midwives. The midwives were in charge of antenatal care procedures for women who had	Mode of delivery (Caesarean section, vaginal birth), amount of

Continued.

S. No.	Authors/Year	Study design	Intervention description	Outcomes measured
		CG=55) pregnant study participants by the using of simple randomization.	been allocated to the intervention group. The midwife usually focused on antenatal check-ups, consultation, making birth plans, parent education, and collaborated with obstetricians and other health professionals as necessary. Each woman had the chance of having continuous one-to-one care from the onset of labour to 2 h post-partum.	vaginal bleeding, neonatal APGAR score, women's psychological state, and satisfaction with care
4	Xiu et al[28]	Randomized controlled trial research design were select the 666 [MLC= 333 CG= 333] pregnant study participants by the using of simple randomization.	The women received a midwife-led pathway model of care with birth companion by a midwife and a family member during the whole process of delivery.	Mode of delivery (vaginal birth, Caesarean section), duration of labour, post-partum haemorrhage, 5-minute APGAR scores, rates of intra-partum and post-partum maternal complication, rates of neonatal asphyxia, and neonatal hospitalisations
5	Ngai et al[25]	Retrospective cohort research design were select the 226 pregnant study participants by the using of stratified random sampling	The MNBU features midwife-led care, a birth plan, complementary therapies and 'two-to-one' care by a midwife and a birth companion of the woman's choice.	Mode of delivery (Caesarean section, vaginal birth) APGAR score.
6	Solomon et al[29]	Quasi- experimental. Total sample was 1178 were recruit pregnant women by stratified cluster sampling technique.	Pregnant women who had received their entire antenatal, labour and birth and immediate postnatal care from one of the participating midwives. Care during labour and birth was provided in the labour ward at the intervention hospitals in 8 h shifts. If the care of the woman in labour took longer than 8 h, the midwife handed over responsibility to another midwife in the team.	Mode of delivery (vaginal birth, Caesarean section, instrumental) preterm birth, episiotomy, perinatal trauma, induction, and augmentation of labour live birth, still birth or early neonatal death. APGAR score at 5 min, birth weight, admission to neonatal intensive care unit (NICU), and breastfeeding within one hour
7	Berit et al[30]	Retrospective cohort research design was recruiting 2201 pregnant women by purposive sampling	The midwives followed up their case-load of women by individual consultations throughout pregnancy. They assessed health status and risk factors and referred to appropriate specialist care when necessary and the midwife continued to follow up women with detected health risks in collaboration with specialist care.	Women satisfaction and exclusive breast feeding.
8	Jing et al[31]	Cohort research design were 1730 women selected by the convenience sampling technique.	A small group of midwives provide care to the pregnant women, including antenatal check-ups, consultation, birth planning, parenting education. They are also responsible for providing care during labour, birth, and the immediate post-partum period,	Maternal wellbeing, delivery mode (Caesarean vs vaginal birth), early initiations of exclusive breastfeeding.
9	Geetha et al[32]	Comparative research design was select 988 sample by the convenience sampling technique.	The CMU handles both high- and low-risk deliveries. Admission is conducted by a duty midwife, who judges risk status on the basis of history, examination, and review of antenatal chart	Artificial rupture of membrane, augmentation, episiotomy.

MLC= Midwifery-led care C= Controlled group SC= Standard group ICU= Intensive care unit MNBU=Midwives-led birth unit

DISCUSSION

Maternal and infant health outcomes are crucial indicators of a nation's overall wellbeing. Improving the quality of care around childbirth and the immediate postpartum period is essential for reducing preventable maternal and neonatal deaths.[33] In India, despite a significant increase in institutional deliveries, maternal and neonatal mortality rates have not shown a commensurate decline in the last decade. This underscores the need for a comprehensive approach to enhancing the quality and safety of maternity care. Emerging evidence suggests that midwife-led care models play a pivotal role in improving maternal and infant health outcomes. These models emphasize a woman-centered, holistic approach to care, with midwives serving as the primary point of contact throughout the pregnancy, childbirth, and postpartum periods.[3]

Available evidence suggests that midwifery-led care units have the potential to significantly improve maternal and infant health outcomes in India, but their implementation and effectiveness are influenced by a range of contextual factors. Midwife-led care models have been associated with a range of positive outcomes, including increased continuity of care, reduced obstetric interventions, and higher patient satisfaction.[20] However, the successful implementation of these models in the Indian context is not without challenges. Factors such as stakeholder engagement, resource availability, and alignment with cultural norms can all play a critical role in determining the success or failure of these interventions.[34]

Policymakers and health care leaders in India must carefully consider these contextual factors when designing and implementing midwifery-led care units. Strategies for addressing barriers, such as investing in infrastructure, engaging with medical professionals, and ensuring adequate funding, are crucial for optimizing the impact of these interventions. Additionally, the use of digital technologies, such as clinical decision support tools, may enhance the quality of care provided in midwifery-led units. However, more robust research is needed to fully understand the impact of these technologies in the Indian context. In conclusion, evidence suggests that midwifery-led care units have the potential to significantly improve maternal and infant health outcomes in India, but their implementation must be carefully tailored to the local context. The existing body of research suggests that the implementation of midwifery-led care units has the potential to significantly improve maternal and infant health outcomes in India, but there are also significant barriers to be overcome.[21,5]

Studies have shown that midwife-led care models are associated with a range of benefits including increased continuity of care, reduced obstetric interventions, and higher patient satisfaction. Women who received midwife-led care were nearly eight times more likely to be attended at birth by a known midwife, 21% less likely to experience fetal loss before 24 weeks' gestation, and had significantly better outcomes across several other indicators such as reduced need for regional analgesia and increased likelihood of spontaneous vaginal birth and breastfeeding initiation.[35]

However, available evidence also highlights the challenges in implementing and scaling up these interventions in the Indian context. Factors such as stakeholder engagement, resource availability, and alignment with cultural norms can play a critical role in determining the success or failure of these initiatives. For example, a systematic review found that securing buy-in from key stakeholders, ensuring adequate infrastructure and supplies, and ensuring cultural relevance are all important for the successful implementation of interventions to provide culturally appropriate maternity care services.

Limitations and future research

One key limitation of existing research is the lack of rigorous, large-scale studies evaluating the impact of midwifery-led care units in the Indian context. Many available studies are either small-scale pilot projects or rely on systematic reviews of international evidence, which may not fully capture the unique contextual factors at play in India. Future research should focus on conducting more robust, context-specific evaluations of midwifery-led care models in India, with an emphasis on understanding the barriers and facilitators of successful implementation and scale-up. Additionally, more research is needed to explore the potential role of digital technologies such as clinical decision support tools in enhancing the quality of care provided in midwifery-led units. While some initial studies have suggested promising results, further research is needed to fully understand the impact and implementation of these technologies in the Indian healthcare system.

CONCLUSION

In conclusion, available evidence suggests that midwifery-led care units have the potential to significantly improve maternal and infant health outcomes in India. However, the successful implementation of these models is heavily influenced by contextual factors such as stakeholder engagement, resource availability, and alignment with cultural norms. Policymakers and healthcare leaders in India must carefully consider these factors when designing and implementing midwifery-led care units and invest in strategies to address key barriers to success. Additionally, the potential role of digital technologies in enhancing the quality of care provided in these units deserves further exploration through rigorous context-specific research. By addressing these implementation challenges and leveraging innovative approaches, India can harness the power of midwifery-led care to improve maternal and infant health outcomes and drive progress towards its ambitious goals for maternal and child health.

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