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Midwifery curriculum evaluation: Is the balance between theory and practice achieved?

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ABSTRACT

Achieving a balance between theoretical knowledge and clinical practice remains a significant challenge in midwifery education. This literature review, conducted systematically using the PICO framework, aims to evaluate midwifery curricula that integrate theory and practice to better prepare students for the demands of the professional world. Five peer-reviewed studies published between 2020 and 2025 from various countries were analysed. The findings reveal recurring barriers in clinical learning, such as inadequate supervision, limited hands-on experience, and a misalignment between academic curricula and field-based practical requirements. Innovative strategies, including Simulation-Based Education (SBE), Competency-Based Education (CBE), Dedicated Education Units (DEU), and Student-Centred Learning (SCL), have demonstrated potential in improving students' confidence and competence. However, the effectiveness of these approaches is contingent upon sufficient infrastructure and teaching resources. This review emphasizes the importance of continuous curriculum evaluation and educational innovation in strengthening the integration of theory and practice, ultimately enhancing the clinical readiness of midwifery graduates.

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ABSTRAK

Mencapai keseimbangan antara pengetahuan teoretis dan praktik klinis tetap menjadi tantangan besar dalam pendidikan kebidanan. Tinjauan pustaka ini dilakukan secara sistematis dengan menggunakan kerangka PICO, bertujuan untuk mengevaluasi kurikulum kebidanan yang mengintegrasikan teori dan praktik guna mempersiapkan mahasiswa menghadapi tuntutan dunia profesional. Lima studi yang telah melalui proses telaah sejawat dan diterbitkan antara tahun 2020 hingga 2025 dari berbagai negara dianalisis dalam kajian ini. Temuan menunjukkan adanya hambatan yang berulang dalam pembelajaran klinis, seperti supervisi yang tidak memadai, keterbatasan pengalaman langsung, serta ketidaksesuaian antara kurikulum akademik dan kebutuhan praktik di lapangan. Strategi inovatif seperti Simulation-Based Education (SBE), Competency-Based Education (CBE), Dedicated Education Units (DEU), dan Student-Centred Learning (SCL) menunjukkan potensi dalam meningkatkan kepercayaan diri dan kompetensi mahasiswa. Namun, efektivitas pendekatan-pendekatan ini sangat bergantung pada ketersediaan infrastruktur dan sumber daya pengajaran yang memadai. Tinjauan ini menekankan pentingnya evaluasi kurikulum secara berkelanjutan dan inovasi pendidikan untuk memperkuat integrasi antara teori dan praktik, sehingga pada akhirnya dapat meningkatkan kesiapan klinis lulusan kebidanan.

Kata Kunci: *evaluasi Kurikulum; kesenjangan teori dan praktik; pembelajaran berbasis simulasi; pendidikan berbasis kompetensi; pendidikan kebidanan*

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INTRODUCTION

Midwifery education plays a crucial role in preparing competent healthcare professionals who are capable of delivering high-quality maternal and neonatal care. However, one of the significant challenges in midwifery education lies in achieving an effective balance between the theoretical knowledge imparted in academic settings and the practical skills required in clinical practice (Arundell et al., 2024). Empirical studies have revealed a significant gap between what students learn in the classroom and how they apply this knowledge in real-world clinical situations (Abraha et al., 2023). To address this discrepancy, regular and comprehensive evaluations of midwifery curricula are crucial to ensure that students are adequately prepared for the practical demands of the healthcare environment (Toosi et al., 2021). Several approaches have been implemented to address this gap, with simulation-based education (SBE) proving effective in enhancing midwifery students' practical skills and confidence through practice in a safe, controlled environment (Malya et al., 2025).

Additionally, technology plays a crucial role in midwifery education by implementing experience-based simulations, which have proven effective in improving clinical competencies in high-risk situations, including caesarean sections and neonatal resuscitation (Vogel et al., 2024). In addition to simulation-based approaches, Competency-Based Education (CBE) is another essential evaluation method (Abdolalipour et al., 2023). The midwifery curriculum should be designed to effectively integrate theory with clinical experience, ensuring that students grasp theoretical concepts and apply them in practical situations (Abraha et al., 2023). Competency-based evaluation measures how well students can apply their knowledge in real clinical settings through simulations and hands-on clinical experiences. The literature has extensively discussed CBE and Student-Centred Learning (SCL) models. Integrating soft skills into midwifery education helps bridge the gap between theory and practice by enhancing cognitive and interpersonal skills critical to midwifery practice. Self-confidence also plays a vital role in developing midwifery students' competencies, as more confident students become more competent in clinical practice (Adnani et al., 2025).

Student midwives struggled to deliver midwifery care services confidently because there was an incompatibility between the unfamiliar clinical setting and their familiar simulated university environment'. Additionally, unrelatable clinical education and assessments hindered students' ability to confidently provide midwifery services (Ngcobo et al., 2021). Students in Malawi also noted a theory-practice gap; they described feeling well-equipped theoretically but not skilled, which lowered their confidence when they could not apply their theoretical knowledge to practical situations (Mtegha et al., 2022). Another barrier was identified in Zimbabwe, where students received a very short training period of only one year, which they felt was inadequate preparation for working as a midwife (Mudokwenyu-Rawdon et al., 2020). The theory-practice gap was a significant factor in students' confidence; they described feeling well-equipped theoretically but not skilled in practice, which reduced their confidence. Low confidence among midwifery students in clinical settings may stem from deficiencies within the curriculum, particularly the lack of sufficient hands-on practice, as emphasized by the need for practical exposure highlighted in previous studies (Bogren et al., 2022).

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The International Confederation of Midwives (ICM) recommends that a midwifery programme should include two pathways: a minimum of 3 years for a direct-entry programme following completion of secondary education or a minimum of 1.5 years for post-registration midwifery primarily based on midwifery competencies that are not included in a prior professional programme. ICM, in collaboration with the World Health Organization (WHO), emphasizes the importance of enhancing midwifery education worldwide by establishing standardized guidelines for both academic training and clinical practice. This commitment has been upheld over the years through the consistent dissemination of global standards, particularly highlighting the use of CBE as a means to harmonize midwifery education and professional practice across different settings (Fullerton et al., 2013). Midwives may pursue one of three primary educational routes to become fully certified, with each pathway designed to ensure the acquisition of essential knowledge and clinical skills.

An inefficient curriculum and ineffective education methods were challenges in implementing the curriculum (Shayan et al., 2019). In Indonesia, the transition from face-to-face learning to online classes, including simulations and practical exercises, has been underway. The midwifery curriculum in Indonesia strikes a balance between clinical practice and theory, with a ratio of 60:40, to produce graduates who meet international standards and national guidelines (Adnani et al., 2022). A curriculum that lacks up-to-date content compromises the quality of material provided to students, leading them to learn information that is no longer relevant. This results in an ineffective transfer of knowledge from theory to practice. Trainers also face challenges when they teach outdated information, further contributing to the gap between theory and clinical practice. As students enter clinical settings and realize that the knowledge they were taught is outdated, they often feel confused and lose motivation to learn. Enhancing the quality of education requires substantial changes in the curriculum (Mahadalkar et al., 2020).

Continuous evaluation of the midwifery curriculum is crucial to ensure its alignment with the evolving needs of education and healthcare, and to equip midwifery students to face professional challenges effectively. Although various studies have examined curriculum content and learning outcomes, a limited number of reviews explicitly assess the extent to which theoretical knowledge and clinical practice are effectively integrated within midwifery education (Merchant et al., 2024; Ryder et al., 2025), particularly in the context of current global healthcare demands (McKellar et al., 2023). This literature review aims to evaluate and compare findings from previous studies on integrating theory and practice in midwifery curricula, providing a more comprehensive understanding of the issue. The results of this review are expected to contribute to curriculum development and serve as a valuable reference for educators, policymakers, and midwifery education institutions in efforts to improve the quality of learning.

LITERATURE REVIEW

The Importance of Theory in Midwifery Education

Midwifery education necessitates a solid theoretical foundation to develop practical clinical skills and establish a professional identity. Core subjects such as anatomy, physiology, and pathology are essential for understanding maternal health, but midwifery theory also

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encompasses research methodology, evidence-based practice, and ethical frameworks. As midwifery integrates further into higher education, it must strike a balance between academic development and clinical competence to prevent detachment from real-world care. Incorporating midwife-led research into theory ensures that students are knowledgeable and capable of applying critical thinking in clinical contexts. Theories in midwifery education help students understand physiological and pathological conditions while highlighting the role of active learning in constructing new knowledge based on existing understanding. However, recent findings suggest that, although theory plays a fundamental role, its direct application in clinical practice remains limited.

Students may understand theoretical content well but still feel unprepared to confront actual clinical challenges due to inadequate hands-on experience (Toosi et al., 2021). The shift to online education during the COVID-19 pandemic, although offering flexibility, has further impacted students' development of essential practical skills (Çetïnkaya & Güney, 2022). Recent shifts in education policy have also begun to involve midwives more directly in shaping curriculum design. In Indonesia, midwifery has gained a stronger role in determining educational content, enabling a more field-relevant approach (Adnani et al., 2022). These developments underscore the importance of selecting pedagogical strategies that foster both theoretical understanding and practical application (Chen et al., 2025). Approaches such as research activities, laboratory practice, seminars, and independent learning can facilitate the better internalization of theory and improve its application in clinical settings (Adnani et al., 2025).

Clinical Practice in Midwifery Education

Many midwifery students feel unprepared when applying theoretical knowledge during clinical placements, particularly in interprofessional consultations and emergencies, emphasizing the need for structured, supervised, and realistic learning strategies (Patterson et al., 2021). Clinical education has been reported to be inadequate, mainly due to insufficient supervision and a weak connection between theory and practice. Limited clinical exposure during the COVID-19 pandemic forced many students to rely on simulations and case-based learning, negatively impacting their technical competencies (Toosi et al., 2021). Simulation-Based Learning (SBL) has been widely adopted to address this gap by immersing students in realistic scenarios that enhance teamwork, communication, and clinical judgment (Lei et al., 2022; Tamilselvan et al., 2023).

Clinical simulations that mimic real-life conditions have effectively improved student competence (Stoodley et al., 2020). Despite its benefits, many simulation programs focus only on narrow content areas, which limits their integration across the broader midwifery curriculum (Wang et al., 2024; Yousef et al., 2022; Zhao et al., 2024). 3D visualization in midwifery learning has also improved students' understanding and knowledge retention while increasing engagement (Gray et al., 2022). In addition, developing digital tools and information and communication technologies (ICT) creates new opportunities to establish safer and more interactive learning environments (Volejnikova-Wenger et al., 2021). However, the adoption of e-learning in midwifery education remains limited, with challenges related to technological infrastructure, digital literacy, and equitable access among students (Downer et al., 2020).

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Evaluating the Balance Between Theory and Practice in the Midwifery Curriculum

Continuously evaluating the balance between theoretical instruction and clinical practice in midwifery education is essential to ensure that students are adequately prepared to meet professional demands. Many students still report difficulties during clinical placements due to a lack of supervision and limited opportunities to apply theoretical concepts directly in practice (Ryder et al., 2025). Bridging this gap requires the integration of more relevant clinical experiences aligned with theoretical instruction (Toosi et al., 2021). Simulation-based technologies have proven effective in enhancing practical skill development and supporting active learning, particularly through mobile platforms that offer flexible, accessible practice opportunities (Fathi Najafi et al., 2025). Nonetheless, differences in students' access to digital infrastructure and varying levels of technological proficiency can contribute to unequal learning outcomes (Downer et al., 2020). These challenges underscore the need for supplementary support systems to ensure that all students benefit from simulation-enhanced curricula (Volejnikova-Wenger et al., 2021).

Gamification is another approach explored to help bridge the gap between theory and practice. While some studies indicate that students report lower satisfaction with game-based methods compared to traditional teaching, gamified learning has shown potential to improve the application of clinical skills, especially when embedded in realistic practice scenarios (Fathi Najafi et al., 2025). Branching scenarios within educational games can provide interactive, contextualized feedback, enabling students to explore clinical decision-making pathways and reflect on outcomes (Wang et al., 2024). Trauma-sensitive care in the perinatal period is a prominent example of where the theory-practice gap is evident. Practical support for trauma survivors requires midwives to understand the complex interplay between trauma, pregnancy, childbirth, and early parenting, which cannot be taught through theory alone but requires relational and experiential learning strategies. Addressing such complex realities in midwifery requires curriculum designs that extend beyond theoretical delivery (Isobel, 2023). Longitudinal curriculum models that promote progressive skill acquisition and early clinical exposure are recommended for improving the integration of theory and practice (Plappert et al., 2024).

The use of integrated Problem-Based Learning (PBL) approaches, combining tutorials, laboratory sessions, and assessments such as Computer-Based Tests (CBT), Structured Oral Clinical Assessments (SOCA), and Direct Observation of Procedural Skills (DOPS), has been found to enhance both academic comprehension and clinical competence (Susanti et al., 2024). Institutional capacity is crucial in supporting theoretical and practical learning. The availability of sufficient teaching staff, manageable student-to-educator ratios, and competent clinical mentors has a direct impact on the quality of midwifery education and the readiness of students. In addition, technological integration can support clinical preparation in maternal and child healthcare, although gaps in infrastructure may continue to pose barriers to consistent implementation (Ladjar & Susanti, 2024). The absence of structured lifelong learning systems and limited post-graduate training options also weakens the long-term integration of theory and practice. Graduates often face challenges in maintaining professional competence, which reflects systemic weaknesses in institutional and continuing education frameworks (Suwareh et al., 2025).

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METHODS

This literature review adopted a systematic approach guided by the PICO framework in **Table 1** to evaluate the balance between theory and clinical practice in midwifery education.

Table 1. PICO Framework

PICO Component	Description
Population	Midwifery students
Intervention	Integrated curriculum combining theoretical knowledge and clinical practice
Comparison	-
Outcome	Effectiveness of integration in improving student competence

Source: Research 2025

Literature was sourced from PubMed, ScienceDirect, Scopus, and Google Scholar, targeting studies published between January 2020 and April 2025, written in English, and available in full text. Keywords included combinations of: "midwifery curriculum," "theory and practice," "clinical training," and "curriculum evaluation," using Boolean operators (AND/OR) to ensure a comprehensive and precise search strategy. Boolean logic allowed the refinement of results by including relevant intersections (AND) and broadening the scope with synonymous or related terms (OR), thereby increasing the likelihood of retrieving all pertinent studies.

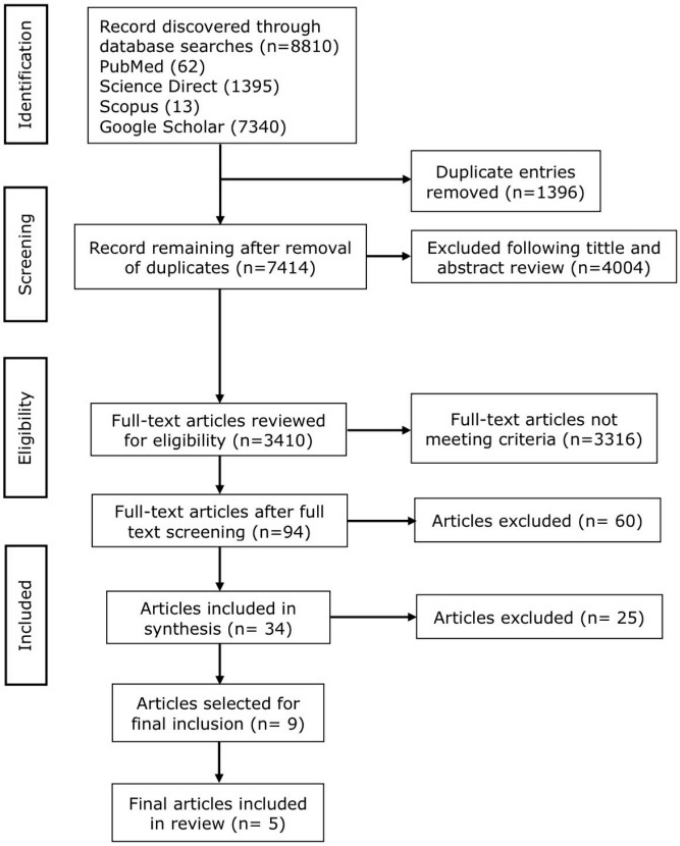

Figure 1. Scheme of the article selection process
Source: Research Result 2025

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This review followed a systematic selection process as illustrated in **Figure 1**. A total of 8,810 records were initially identified through database searches: PubMed (62), ScienceDirect (1,395), Scopus (13), and Google Scholar (7,340). After removing 1,396 duplicate entries, 7,414 articles remained for screening. During the screening phase, 4,004 records were excluded after reviewing titles and abstracts for relevance to the study's objectives. The remaining 3,410 full-text articles were assessed for eligibility. From this, 3,316 articles were excluded because they did not meet the inclusion criteria, leaving 94 articles that underwent full-text screening. Following further review, 80 articles were excluded, leaving 34 to be included in the synthesis phase. Of these, 25 were excluded due to issues such as insufficient methodological rigor or a lack of focus on theory-practice integration, from the remaining nine articles. Only five of the remaining nine articles met all criteria and were included in the final analysis of this review.

The quality of each article was assessed using the Critical Appraisal Skills Programme (CASP) checklist, which evaluates aspects such as the clarity of research aims, appropriateness of the methodology, data collection and analysis, ethical considerations, and the value of the findings. This rigorous selection process ensured that the studies included were highly relevant and provided comprehensive insights into integrating theory and clinical practice in midwifery education. This review adheres to the PRISMA guidelines to ensure that the selection and data analysis processes are conducted transparently and systematically. PRISMA helps ensure that each stage of the systematic review is reported, from article selection to the synthesis of findings, providing a comprehensive overview of the review topic.

RESULTS AND DISCUSSION

The search for articles that met the inclusion criteria yielded five studies incorporated into this review. These studies originated from Indonesia (1), Iran (1), a multi-country study involving five European nations (Belgium, Portugal, Poland, Spain, and Turkey - 1 article), Nigeria (1), and Ireland (1). Four studies used qualitative methods in their research design, including in-depth interviews, focus group discussions, and simulation-based learning. One study adopted a mixed-methods approach, combining national surveys with stakeholder focus groups. The participants involved across the studies included midwifery students, lecturers, recent graduates, midwives, obstetricians, mentors, and head nurses.

Table 2. Results of Data Synthesis

No	Author (s) /Year	Country	Methods	Sample Size/Data Collection	Result	CASP Criteria	Quality Assessment
1	(Adnani et al., 2022)	Indonesia	Qualitative Descriptive (In-depth interviews)	37 participants: midwifery lecturers, students, newly graduated	Identified barriers in clinical experience, emphasizing the importance of hands-on	1. Clearly stated research aim. 2. Qualitative methodology is appropriate.	High

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No	Author (s) /Year	Country	Methods	Sample Size/Data Collection	Result	CASP Criteria	Quality Assessment
				midwives, obstetricians	practice and the role of mentors to bridge the theory-practice gap	3. Data collection through in-depth interviews. 4. Thematic analysis applied rigorously. 5. Ethics and researcher reflexivity are partially addressed	
2	(Firoozehchian et al., 2022)	Iran	Qualitative (In-depth interviews, content analysis)	24 participants: students, faculty members, midwives, obstetricians	Clinical competence is multifaceted and needs integration of skills, knowledge, and attitudes; key areas include ethical conduct, holistic care, and evidence-based practice	1. Clear research objective. 2. Conventional content analysis was used. 3. Data saturation reached. 4. Ethical approval and consent procedures in place. 5. Valid coding and theme development supported by participant quotes.	Very High
3	(Pedregosa et al., 2024)	This study involved five countries from the European region: Belgium, Portugal, Poland, Spain, and Turkey	Qualitative (Focus group interviews)	31 nursing and midwifery students, 18 mentors, six head nurses	The Dedicated Education (DEU) model enhances the theory-practice connection, improving student autonomy, responsibility, and providing better learning opportunities	1. The aim is focused on DEU experiences. 2. Cross-country focus group data collection. 3. Thematic analysis conducted. 4. Participant diversity ensured. 5. Reflexivity is not fully discussed, but ethical standards are addressed.	High

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No	Author (s) /Year	Country	Methods	Sample Size/Data Collection	Result	CASP Criteria	Quality Assessment
4	(Ige & Ngcobo, 2024)	Nigeria	Qualitative	22 midwifery educators, 18 clinical preceptors, 18 newly graduated midwives, 72 final-year students; in-depth interviews, FGDs, document analysis	Developed a model to strengthen the quality of midwifery education. Found a lack of integration between theory and practice due to overloaded curriculum, insufficient clinical guidance, and weak learning environments. Emphasized curriculum reform, enabling environment, leadership, and quality assurance to achieve competency-based midwifery education	1. Grounded theory design is justified. 2. Data collected via interviews, FGDs, and documents. 3. Theoretical sampling and data saturation achieved. 4. Ethics addressed; informed consent obtained. 5. A clear and applicable conceptual model has been developed.	Very High
5	(Ryder et al., 2025)	Ireland	Mixed Methods (Surveys, Stakeholder focus groups)	National survey of graduates and focus groups with nursing and midwifery staff	Curriculum revision is needed to integrate clinical practice and academic learning better to meet the future healthcare needs	1. Mixed-methods design with strong qualitative component. 2. Curriculum evaluation framework applied. 3. Data collected through stakeholder focus groups. 4. Ethical standards followed. 5. Reflexivity is limited, but findings have national policy implications.	Moderate-High

Source: Research 2025

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The key characteristics of these studies are presented in **Table 2**, which provides a concise overview of their relevance to integrating theory and practice in midwifery education. The literature search identified five relevant articles that examine the integration of theory and practice in midwifery education. The studies came from Indonesia, Iran, Ireland, Australia, and five European countries (Belgium, Portugal, Poland, Spain, and Turkey). The research methods used included three qualitative studies, one mixed-methods study, and one using simulation-based learning. The key findings from these studies are as follows.

1. Barriers in Clinical Learning: Several studies reported challenges in translating theoretical learning into clinical competence due to limited hands-on opportunities and insufficient mentorship. Newly graduated midwives often lacked practical readiness, and there is a need to integrate ethics, skills, and holistic care in clinical training (Adnani et al., 2022; Firoozehchian et al., 2022).
2. Curriculum-Clinical Misalignment: A national survey and stakeholder interviews in Ireland revealed a disconnect between academic curricula and clinical realities, highlighting the need for curricular reforms to enhance practice-readiness among students (Ryder et al., 2025).
3. Need for Curriculum Reform and Supportive Learning Environments: The Nigerian study emphasized the development of a comprehensive model to strengthen midwifery education. Findings indicated that overloaded curricula, insufficient clinical supervision, and weak learning environments hindered the integration of theory and practice. Recommendations included curriculum revision, leadership enhancement, enabling environments, and quality assurance mechanisms (Ige & Ngcobo, 2024).
4. Innovative Learning Models: The Dedicated Education Unit (DEU) model, implemented across five European countries, enhanced students' autonomy, responsibility, and integration of theory and practice (Pedregosa et al., 2024).

Discussion

Midwifery education prepares competent healthcare professionals capable of delivering high-quality maternal and neonatal care. The World Health Organization (WHO) emphasizes that strengthening midwifery education in line with international standards is critical to improving care quality and reducing maternal and neonatal morbidity and mortality. However, one persistent challenge is achieving a meaningful balance between the theoretical knowledge taught in classrooms and the practical skills required in clinical settings (Arundell et al., 2024). Many studies have demonstrated the existence of a theory-practice gap, a discrepancy between what midwifery students learn in the classroom and what they face in clinical settings (Abraha et al., 2023; Saifan et al., 2021). Even in institutions with structured curricula and collaboration between mentors and academic staff, students often struggle to apply their theoretical understanding during clinical placements (Panda et al., 2021). These difficulties are exacerbated in hospitals with limited facilities or insufficient clinical supervision, which impedes students' preparedness for real-world scenarios (Abraha et al., 2023).

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Students engaged in neonatal case-based simulation felt more confident and competent in managing real clinical emergencies (Malya et al., 2025). Similarly, experiential, high-risk simulations, such as caesarean deliveries and neonatal resuscitation, significantly improved students' readiness for clinical practice without endangering patient safety (Vogel et al., 2024). In addition, technology-enhanced education, including virtual simulations, has gained popularity in recent years. These tools effectively teach clinical reasoning and procedural skills across various disciplines (Svendsen & Achiam, 2022; Wu et al., 2022). However, virtual learning can also present challenges. Distance learning environments often limit students' opportunities to develop essential psychomotor and hands-on skills, which are vital for clinical proficiency (Çetïnkaya & Güney, 2022). Moreover, limited access to infrastructure and low student motivation can hinder the effectiveness of these tools (Wu et al., 2022).

The Dedicated Education Unit (DEU) model has also emerged as a promising approach to bridging the gap between theory and practice. DEUs provide structured clinical environments that foster strong collaboration between educational institutions and healthcare providers. Research has shown that DEUs enhance students' clinical confidence and professional identity, contributing to a more seamless integration of theory and practice (Pedregosa et al., 2020). Another essential dimension of midwifery education is the development of holistic competencies. Midwives must possess knowledge and technical skills, emotional intelligence, communication skills, ethical reasoning, and professional self-confidence (Firoozehchian et al., 2022; Mtegha et al., 2022). Quality education should empower students to become competent and ethical practitioners. However, disparities still exist. In Indonesia, for instance, the quality of midwifery education varies greatly between institutions, and many rely heavily on self-directed learning without adequate supervision (Adnani et al., 2022). In contrast, midwifery graduates in Kenya have reported high levels of self-confidence and competence, especially in labor and delivery care (Tallam et al., 2022).

CBE and SCL have been widely advocated to promote more substantial alignment between theory and practice. Integrating soft skills, such as critical thinking, empathy, and communication, within the midwifery curriculum enhances both cognitive and interpersonal competencies. Students with higher self-confidence tend to be more competent in clinical practice, making psychological readiness just as crucial as technical ability (Adnani et al., 2025). Bridging the gap between theory and practice in midwifery education requires a multidimensional strategy that includes curriculum reform, effective mentorship models such as DEUs, simulation-based training, competency-based learning, and attention to contextual challenges, including infrastructure and faculty support. These combined efforts are crucial for producing capable, confident midwives who are prepared to deliver safe and respectful care to mothers and newborns.

CONCLUSION

This literature review concludes that the balance between theory and practice in midwifery education has not yet been fully achieved, as evidenced by ongoing challenges related to students' clinical preparedness. Although theoretical instruction is generally well-structured, the inconsistency and limited availability of real-world clinical experiences hinder the

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development of practical competencies. Several studies reviewed highlight the potential of innovations such as simulation-based learning, Dedicated Education Unit (DEU) models, and competency-based curricula to narrow the gap between knowledge and practice. These findings underscore the importance of developing aligned and contextually responsive curricula to foster the growth of competent and confident midwives. Future midwifery curriculum development should emphasize integrated learning models that combine theoretical instruction with supervised, context-rich clinical experiences. Institutions should also strengthen technological infrastructure, faculty mentoring systems, and formative assessments to support students' clinical preparedness and self-confidence. Based on the gaps identified in this review, future research is recommended to empirically investigate the long-term impact of integrated curriculum models on clinical competence, student confidence, and patient care outcomes. Comparative studies across different regions and educational systems are also needed to evaluate contextual challenges and best practices in achieving curriculum balance.

AUTHOR'S NOTE

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