



Exploring and reviewing tools to evaluate midwifery students' clinical education perceptions and impact

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ABSTRACT

This study aims to evaluate midwifery students' perceptions of their clinical learning environment and its impact on clinical learning outcomes. The study is grounded in the importance of a supportive clinical environment to optimize students' competency achievement. A literature review method was employed by examining recent international journal articles accessed through Google Scholar and PubMed. The reviewed articles discuss clinical education evaluation tools, students' perceptions of clinical learning settings, and the relationship between these perceptions and clinical learning outcomes. The findings reveal that positive student perceptions of the clinical environment are significantly associated with improved learning outcomes, including enhanced practical skills and increased motivation. Furthermore, the quality of the clinical learning environment can be improved through the use of better evaluation instruments, tutor training, and the strengthening of clinical facilities. This study highlights the importance of continuous monitoring and quality improvement in midwifery clinical education to ensure that graduates are competent and ready for professional practice. The results provide valuable insights for midwifery education institutions to design effective strategies that enhance clinical learning environments and reinforce student learning outcomes.

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ABSTRAK

Studi ini bertujuan untuk mengevaluasi persepsi mahasiswa kebidanan terhadap lingkungan belajar klinik serta dampaknya terhadap hasil belajar klinik. Latar belakang studi ini didasarkan pada pentingnya lingkungan belajar klinik yang kondusif dalam mendukung pencapaian kompetensi mahasiswa secara optimal. Penelitian ini menggunakan metode tinjauan literatur dengan menelaah artikel jurnal internasional terkini yang diakses melalui Google Scholar dan PubMed. Artikel yang dikaji membahas alat evaluasi pendidikan klinik, persepsi mahasiswa terhadap lingkungan belajar klinik, serta hubungan antara persepsi tersebut dengan hasil belajar klinik. Hasil kajian menunjukkan bahwa persepsi positif mahasiswa terhadap lingkungan klinik secara signifikan berkaitan dengan peningkatan hasil belajar, termasuk keterampilan praktik dan motivasi belajar. Selain itu, peningkatan kualitas lingkungan belajar klinik dapat dicapai melalui perbaikan instrumen evaluasi, pelatihan tutor, serta penguatan sarana dan prasarana klinik. Studi ini menegaskan pentingnya pemantauan dan peningkatan berkelanjutan dalam pendidikan klinik kebidanan untuk menjamin lulusan yang kompeten dan siap menghadapi dunia kerja profesional. Temuan ini memberikan masukan penting bagi institusi pendidikan kebidanan dalam merancang strategi untuk meningkatkan kualitas lingkungan belajar klinik dan memperkuat hasil belajar mahasiswa.

Kata Kunci: evaluasi pendidikan kebidanan; penilaian mahasiswa; persepsi mahasiswa

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INTRODUCTION

Clinical education serves as the cornerstone of midwifery training, offering students the opportunity to develop professional competencies, decision-making skills, and hands-on experience (Funa, 2024). However, midwifery students often face a variety of challenges during clinical placements, including limited supervision, inconsistent feedback, restricted participation in decision-making, and misalignment between theory and practice (Aboshaiqah et al., 2016; Hunter et al., 2022). These conditions may hinder optimal experiential learning and delay the development of essential clinical competencies (Abuosi et al., 2022). In Indonesia, reports from the Ministry of Health indicate that more than 30% of newly graduated midwives struggle to independently perform basic clinical tasks, particularly in underserved regions (Ige et al., 2024). These findings underscore the urgent need to evaluate and strengthen the quality of midwifery clinical education.

Negative student perceptions of the clinical learning environment are associated with decreased motivation, elevated stress, and suboptimal competency acquisition (Zhang et al., 2022). Positive perceptions are associated with enhanced engagement and improved learning outcomes (Lee et al., 2023). Thus, understanding students' perceptions is crucial for enhancing the quality of midwifery education (Yılmaz & Aktaş, 2023). Although many studies have evaluated students' perceptions of clinical education, there is still no consensus on the most appropriate, valid, and context-specific evaluation tools for midwifery education (Hajifoghaha et al., 2019; Wang et al., 2023). Most existing instruments have been developed for general healthcare professions, such as nursing, and may lack specificity and sensitivity when applied to midwifery education, especially in diverse sociocultural settings (Lee et al., 2023).

Several tools have been developed to assess perceptions of the clinical learning environment, such as the Clinical Learning Environment Inventory (CLEI) and the Clinical Learning Environment, Supervision, and Nurse Teacher (CLES+T) scale (Salakpi et al., 2022). However, these instruments were originally designed for nursing education and general healthcare contexts and may not fully capture the unique characteristics and challenges of midwifery education (Mansutti et al., 2017). Despite the growing interest in evaluating the quality of clinical education, no comprehensive review has yet synthesized the available tools used to assess midwifery students' perceptions of the clinical learning environment, nor examined their association with learning outcomes (Hajifoghaha et al., 2019). Most existing reviews and research focus on general healthcare professions and do not adequately address the unique requirements of midwifery education, particularly in low and middle-income countries (Zhang et al., 2022).

Furthermore, while various tools have been used to assess students' perceptions of the clinical learning environment, there is no clear consensus on which instruments are most effective or appropriate for midwifery education, and the relationship between these perceptions and students' clinical learning outcomes remains underexplored (Guejedad et al., 2025). This review aims to address this gap by providing a critical synthesis of evaluation instruments specifically for midwifery education and offering recommendations for their contextual adaptation and practical use. Specifically, it will answer the following research questions: What evaluation tools have been used to assess midwifery students' perceptions

of the clinical learning environment? and how do these perceptions influence clinical learning outcomes? The objective of this review is to systematically identify and analyze evaluation tools used to measure midwifery students' perceptions of the clinical learning environment and to explore how these perceptions influence clinical learning outcomes. By doing so, this review seeks to contribute to quality improvement in midwifery education by providing a critical overview of existing instruments and offering evidence-based recommendations for the development of more appropriate and context-specific tools.

LITERATURE REVIEW

Evaluation Tools for Clinical Education in Midwifery

Evaluation in clinical midwifery education requires objective and reliable instruments to assess various dimensions of competence, including technical skills, communication, and professionalism, consistent with evidence-based assessment principles (Piumatti et al., 2021). Tools such as the Objective Structured Clinical Examination (OSCE) provide valid and standardized methods for evaluating students' ability to demonstrate skills in practice, aligning with the 'shows how' level in Miller's Pyramid (Dolot et al., 2024; Piumatti et al., 2021). Mini-CEX and DOPS are used by preceptors to assess real-time clinical performance, providing formative feedback (Khajehpour et al., 2023). Clinical portfolios, emphasizing reflective learning as outlined by Schön, enable students to document cases, reflect critically, and demonstrate self-development.

Critical reflection in the portfolio can also reveal affective achievements and professionalism that are not captured in standard practical exams (Ashipala et al., 2022). In addition, context-specific tools such as midSTEP (Midwifery Student Evaluation Program) and MATE (Midwifery Assessment Tool for Education) have been developed to facilitate woman-centered, culturally sensitive, and competency-based assessments (Griffiths et al., 2020). Meanwhile, MATE (Midwifery Assessment Tool for Education) is a holistic evaluation innovation based on competency and cultural sensitivity, developed to strengthen accountability in midwifery education assessments (Hunter et al., 2022). High-quality evaluations should triangulate these tools to authentically capture students' overall competencies (Abuosi et al., 2022; Dolot et al., 2024).

Midwifery Students' Perceptions of Clinical Learning Environment

The way midwifery students interpret their clinical training environment plays a central role in shaping effective learning outcomes. When this environment is perceived positively, it promotes comfort, active participation, and effective development of clinical competencies (Dolot et al., 2024). This favorable perception aligns with Kolb's experiential learning theory, emphasizing the critical role of hands-on experience in knowledge construction (Liu et al., 2025). Factors influencing positive perceptions include the quality of preceptor guidance, availability of clinical facilities, and a collaborative working atmosphere that supports contextual learning and woman-centered care (Dolot et al., 2024). In contrast, negative perceptions often arise from high workload pressure, role conflicts between preceptors and students, and limited case exposure (Ahmad et al., 2020). These conditions indicate a gap between students' learning expectations and the clinical realities.

Impact of Perception on Clinical Learning Outcomes

How students interpret and evaluate their experiences in clinical education significantly influences learning outcomes across Bloom's three learning domains: cognitive, affective, and psychomotor (Marta et al., 2025; Masyita et al., 2023). Positive perceptions enable students to acquire knowledge more effectively, develop professional attitudes, and enhance their clinical practice skills (Malik et al., 2015). Another study emphasizes that such positive perceptions strongly contribute to achieving midwifery competencies. Conversely, misaligned perceptions between students and preceptors may lead to learning challenges, including biased evaluations that undermine assessment objectivity and reduce students' motivation (Masyita et al., 2023).

Divergent views on performance or clinical outcomes can introduce bias into evaluations, reducing the objectivity of assessments and students' motivation to learn. This further highlights that these discrepancies hinder constructive feedback and disrupt the clinical learning relationship (Ahmad et al., 2020). Therefore, objective and valid evaluation tools are essential to mitigate such biases. Instruments like the Objective Structured Clinical Examination (OSCE) and the Midwifery Assessment Tool for Education (MATE) ensure fair, transparent, and competency-aligned assessments through criterion-referenced approaches (Hunter et al., 2022; Piumatti et al., 2021). These tools emphasize that adopting them supports more accurate and reliable evaluations, thereby enhancing students' confidence in the clinical learning environment (Hunter et al., 2022).

Quality Improvement in Clinical Midwifery Education

Improving the quality of clinical midwifery education is crucial to producing competent and professional graduates (Modarres et al., 2022). One key strategy is competency-based preceptor training, which ensures that clinical instructors not only possess subject expertise but also guide students in accordance with professional standards (Bradshaw et al., 2025). In addition, an adaptive curriculum that aligns with developments in midwifery science and the current needs of health services is a major supporting factor, including the provision of facilities that meet professional education standards. Additionally, adaptive curricula that reflect current midwifery science and healthcare needs, combined with adequate clinical facilities, support optimal learning (Ige et al., 2024; Yang et al., 2021).

Triangulated evaluations enhance assessment accuracy and validity by capturing multiple aspects of competence (Symon et al., 2024). This approach enables a more holistic assessment of students' competencies, making evaluations more accurate and objective. Furthermore, the stratified clinical learning model, which progresses from observation to guided and independent practice, aligns with Vygotsky's Zone of Proximal Development and scaffolding theory, promoting gradual skill acquisition (Salajegheh et al., 2024). This model aligns with Vygotsky's Zone of Proximal Development theory, emphasizing the crucial role of scaffolding to help students advance step-by-step to higher levels of ability.

METHODS

This study employed a systematic literature review approach with a qualitative descriptive method to identify and analyze evaluation tools used to measure midwifery students' perceptions of clinical education, and to explore how these perceptions influence clinical learning outcomes. This approach was chosen to provide a structured, evidence-based synthesis of the available literature, with a focus on methodological rigor and relevance to clinical midwifery education. The methodology for this systematic review is designed to ensure comprehensive and transparent reporting. A structured literature search was conducted in two electronic databases: PubMed and Google Scholar. The search was conducted between March and April 2025, targeting peer-reviewed articles published between January 2015 and April 2025. The search strategy incorporated specific keywords and Boolean operators, as follows: ("midwifery student" OR "student midwife") AND ("clinical education" OR "clinical learning environment") AND ("perception") AND ("assessment tools" OR "evaluation instruments") AND ("learning outcomes").

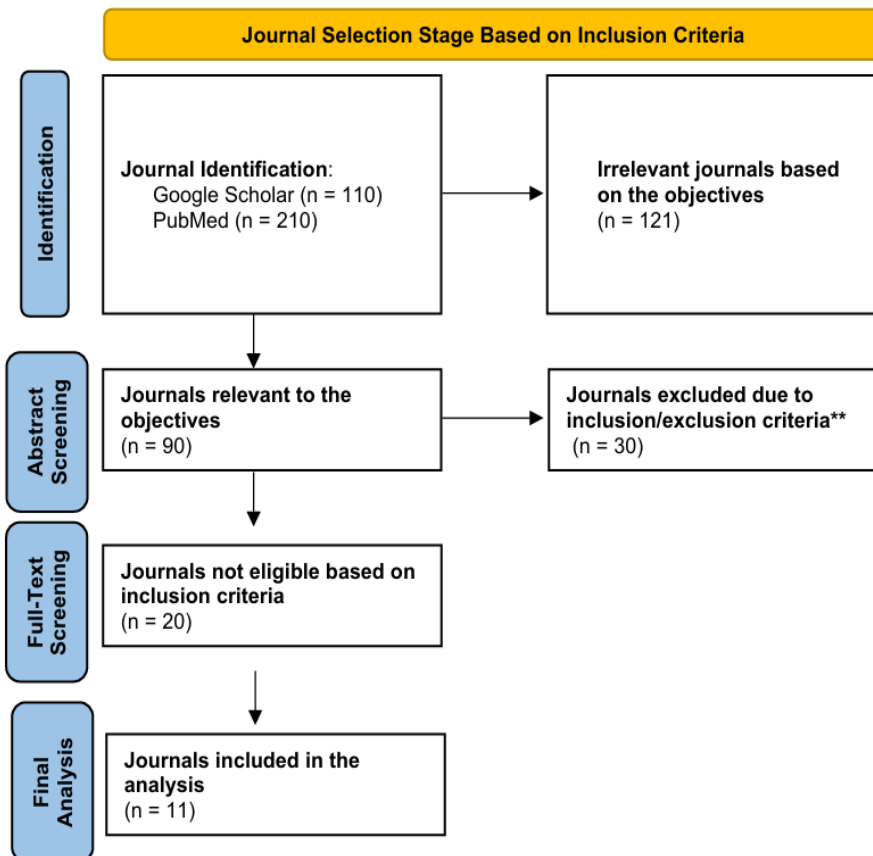


Figure 1. Stage Selection Journal in accordance Criteria Inclusion
Source: Research 2025

In addition to the database search, manual reference tracking (backward citation searching) was performed to identify additional studies relevant to the research objectives that might not have been captured in the initial search results. The selection process followed the flow diagram (as depicted in **Figure 1**). The selection of studies adhered to a set of predefined inclusion and exclusion criteria, ensuring the relevance, quality, and methodological soundness of the included literature. These criteria are presented in **Table 1**.

Table 1. Inclusion and Exclusion Criteria

Category	Inclusion	Exclusion
Topic / Subject	<ol style="list-style-type: none"> 1. Evaluation tools for clinical midwifery education 2. Midwifery students' perceptions 3. Influence of perceptions on learning outcomes 4. Quality improvement based on students' perceptions 	<ol style="list-style-type: none"> 1. Studies that do not evaluate student perceptions 2. Non-educational clinical topics
Publication Date	Articles published from 2015 to 2025	Articles published before 2015
Article Language	Articles published in English and Indonesian	Languages other than English or Indonesian
Article Type	Original research (quantitative, qualitative, or mixed methods) and literature reviews	Editorial, commentaries, opinion pieces, letters to the editor.
Accessibility	Full-text available	Abstract-only or inaccessible full-text
Source Quality	Peer-reviewed and nationally/internationally accredited journals	Non-peer-reviewed or non-accredited sources
Relevance	Must address at least one of the following: perception, instruments, learning outcomes, or quality improvement	Articles not explicitly discussing clinical education or perception.

Source: Research 2025

Based on **Table 1**, all articles meeting the specified inclusion criteria from the systematic search were included in the analysis, without any further sampling limitations. Data were extracted independently using a standard matrix that captures important study characteristics, including objectives, methods, population (if any), and key findings. To ensure accuracy and minimize bias, one reviewer primarily conducted data extraction, and any discrepancies or uncertainties during the process were resolved through discussion and consensus with a second reviewer. A total of 11 articles met the inclusion criteria and were analyzed using a data extraction matrix. Articles were then screened and grouped based on predefined inclusion and exclusion criteria aligned with the research focus.

This review focuses on studies addressing the following themes: 1) the types and characteristics of evaluation tools used in clinical midwifery education; 2) students' perceptions of the clinical learning environment and how contextual factors shape these perceptions; 3) the influence of such perceptions on students' learning outcomes across cognitive, affective, and psychomotor domains; and the role of perception-based evaluation in guiding quality improvement strategies in clinical midwifery education. The analysis emphasized critical evaluation of the methodological quality and the relevance of each study's findings to the research focus. For the qualitative descriptive analysis, data from the selected articles were subjected to a thematic analysis approach, as outlined by Braun and Clark. This involved familiarizing ourselves with the data, generating initial codes, identifying themes, reviewing the themes, defining and naming them, and producing the report. This rigorous process allowed for the systematic organization, coding, and synthesis of findings into coherent themes relevant to the research objectives.

RESULTS AND DISCUSSION

Results

Based on the search results using the specified keywords, a total of 320 articles were initially found. As detailed in **Figure 1**, after a multi-stage screening process based on inclusion and exclusion criteria, 11 studies were identified and analyzed for this review.

Table 2. Summary of Included Studies in the Literature Review

Code	Objective	Method	Population (if applicable)	Key Findings
A1	Develop and validate MidSTEP tool	Cross-sectional, survey, psychometric testing.	279 midwifery students).	Two reliable scales (Cronbach's alpha 0.92 & 0.94). Students are positive about the learning environment and preceptors.
A2	Develop and test a tool measuring midwife preceptors' perceptions of their role in midwifery student learning.	Multi-method exploratory study including item generation, expert review, psychometric testing, online survey, and focus group discussions.	Midwife preceptors from three maternity units in Queensland, Australia (n = 164, response rate 64.2%).	The MidPaACT tool demonstrated good validity and reliability with a Cronbach's alpha of 0.89. The tool reflected preceptors' perceptions of their teaching ability and their influence on student learning experiences.
A3	Effect of neonatal resuscitation simulation on skills and confidence	Quasi-experimental, OSCE pre/post-test.	80 midwifery students.	Significant improvement in knowledge, skills, and self-confidence sustained up to 6 weeks.
A4	Explore sociocultural influences on OSCE examiners' judgment	Qualitative interviews, CHAT analysis.	17 OSCE examiners.	Factors influencing judgments include differing beliefs and expectations, as well as variations in assessment criteria.
A5	Review experiences of midwifery students and preceptors in practice assessment.	Descriptive qualitative study using interviews and content analysis.	32 students in midwifery and 29 preceptors at universities in Ireland.	The importance of structured practice assessment is highlighted, with constraints including a lack of continuity and power dynamics.
A6	Describe the development of the World Health Organization Midwifery Assessment Tool for Education (MATE) through a co-design process.	Co-design approach involving three phases: development, pilot, and field testing, including narrative feedback and online surveys.	Workshop participants include clinicians, educators, students, policymakers, and service users.	MATE is relevant, easy used, culture appropriate; facilitating dialogue and strengthening education midwifery at regional level

Code	Objective	Method	Population (if applicable)	Key Findings
A7	Designing and implementing an integrated, comprehensive, and fair midwifery professional competency test model (OMMID).	Multimethod, multiphasic study; Phase 1 qualitative using nominal group technique; Phase 2 mixed-method field test on 161 senior midwifery students.	161 students in senior midwifery at the University of Iran.	The OMMID model combined MCQs, OSCE, Mini-CEX, and DOPS. It increased fairness, consistency, and student satisfaction without increasing anxiety. The model enabled a more comprehensive assessment of professional midwifery competencies.
A8	Assess perceptions of Auxiliary Nurse Midwifery (ANM) students about their educational environment to improve education quality.	Descriptive study. Self-administered DREEM questionnaire on 244 ANM students from 10 government ANM schools in a random way.	244 ANM students in Tamil Nadu, India.	The average DREEM score was 167.39 (± 18.06), with perception of academics at its highest (91%) and perception of social aspects at its lowest (74%); the environment of education was rated more positively than negatively. This can guide weak area enhancement.
A9	Explore experience student midwifery during training clinical at home illness and community, focus on opportunities and challenges	Descriptive qualitative study using in-depth interviews with purposively sampled midwifery students.	26 students in midwifery in the Philippines.	Key themes included the importance of a supportive learning environment, exposure to diverse clinical cases, the acquisition of practical skills, and challenges such as hierarchical barriers, communication issues, unclear roles, and limited resources. The study highlighted the need for interventions to improve clinical education experiences.
A10	Evaluate midwifery students' clinical practice experiences and their perceptions of midwifery preceptors.	Cross-sectional descriptive study using Participant Information Form, Clinical Learning Environment, and Midwifery Preceptor Scales.	205 students in midwifery at state universities in Turkey.	Average scale score environment Study clinical 31.08/32, scale preceptor 17.6/18. Students in their second year and older, and those who choose a profession with a voluntary component, show a positive and significant perception of the experience of clinical and role preceptors; an important environment and preceptor for clinical competence.

Code	Objective	Method	Population (if applicable)	Key Findings
A11	Explaining the domain of competence clinical student midwifery as base development tool assessment competence	Qualitative, content analysis, and in-depth interviews with students, lecturers, midwives, and obstetricians	24 participants (7 students, 7 midwives, 9 lecturers, 1 obstetrician) at the university and home sick in Iran	Clinical competence covering functional, ethical, and professional, holistic care, effective interaction, and personal and professional development.

Source : (Bradshaw et al., 2025; Firoozehchian et al., 2022; Funa, 2024; Govindarajulu et al., 2023; Griffiths et al., 2023; Griffiths et al., 2020; Hakimi et al., 2021; Hunter et al., 2022a; Khajehpour et al., 2023; Wong et al., 2023; Yilmaz & Aktaş, 2023).

Based on **Table 2**, the selected articles that met the inclusion criteria were analyzed qualitatively by the authors using a content analysis approach. The table was constructed as the result of thematic mapping based on the focus and contribution of each study to the review objective. This review highlights four central themes: 1) Evaluation tools for clinical education in midwifery; 2) Midwifery students' perceptions of the clinical learning environment; 3) Impact of perception on clinical learning outcomes; and 4) Quality improvement in clinical midwifery education. These themes serve as the analytical framework for synthesizing the literature and guiding the interpretation of findings. Specifically, the studies identified various assessment tools, which can be broadly categorized into perception-based (e.g., MidSTEP, MidPaACT) and competency-based (e.g., OSCE, OMMID, MATE) types.

Findings consistently highlighted that positive student perceptions of the clinical learning environment are significantly associated with improved learning outcomes, including enhanced practical skills, increased motivation, and greater confidence. Conversely, challenges such as limited supervision, inconsistent feedback, and cultural insensitivity were reported to hinder optimal learning. Furthermore, several studies have emphasized the importance of preceptor guidance, the availability of clinical facilities, and a collaborative working atmosphere as crucial elements in shaping positive perceptions. The synthesis also indicated that efforts towards quality improvement in clinical midwifery education often involve competency-based preceptor training, adaptive curricula, and triangulated evaluation approaches. These findings collectively underscore the multifaceted nature of clinical education and the critical role of student perceptions.

Discussion

Various studies have highlighted the importance of evaluating midwifery students' clinical experiences as a crucial component in achieving effective and high-quality education (Griffiths et al., 2020). Students' perceptions of supportive clinical learning environments and the role of preceptors have been shown to influence learning outcomes and self-confidence in clinical practice significantly (Hakimi et al., 2021; Yilmaz & Aktaş, 2023). Valid and reliable instruments such as the Midwifery Student Evaluation of Practice (MidSTEP) and the Midwifery Perceptions and Assessment of Clinical Teaching (MidPaACT) have been developed to facilitate this evaluation. These tools are designed to assess the perceptions of

both students and preceptors regarding clinical learning environments and the role of clinical mentors in fostering professional competence (Griffiths et al., 2020; Griffiths et al., 2023). In this context, sustainable assessment mechanisms and continuous quality improvement of clinical education are essential to ensure effective learning experiences and optimal competency development among midwifery students (Govindarajulu et al., 2023; Khajehpour et al., 2023).

Evaluation Tools for Clinical Education in Midwifery

Evaluation in the education clinic, particularly in midwifery, plays a strategic role in assessing and developing the competence of students in a comprehensive manner, covering cognitive, psychomotor, and affective aspects (Griffiths et al., 2020). Evaluation is not only functioning as a tool measuring achievement, but also as means of strengthening practice-oriented learning in a safe and professional clinic (Firoozehchian et al., 2022). Evaluation tools such as the Objective Structured Clinical Examination (OSCE), Direct Observation of Procedural Skills (DOPS), and Mini-Clinical Evaluation Exercise (Mini-CEX) have been widely utilized in midwifery education to provide systematic, objective, and real-time assessments of students' clinical competencies. Among these, the OSCE is particularly valued for its ability to measure both practical and communication skills in a standardized format and to identify specific areas of weakness for targeted remediation (Hakimi et al., 2021; Wong et al., 2023). DOPS, on the other hand, emphasizes immediate observation during actual clinical procedures, allowing instructors to assess technical performance and patient safety in authentic clinical settings (Khajehpour et al., 2023).

Evaluation suggests that this is rated more authentic and can increase readiness in a real clinic (Bradshaw et al., 2025). Meanwhile, Mini-CEX contributes to formative assessment by enabling direct evaluation of communication, physical examination, and clinical decision-making skills through structured real-time observation (Griffiths et al., 2023). In addition to assessment based on direct observation, evaluation through a journal or portfolio also becomes important in building awareness of self and critical thinking in students (Firoozehchian et al., 2022). A portfolio not only documents development competence but also serves as a medium for internalizing the values of professionalism (Govindarajulu et al., 2023). This aligns with Kolb's theory, emphasizing the importance of reflection in experience (Firoozehchian et al., 2022). A previous study has shown that students' perception of tool evaluation is also influenced by contextual factors, including interpersonal relationships with preceptors and the study clinic environment (Yilmaz & Aktaş, 2023). The importance of structured tools like MidSTEP in providing transparency and clarity in clinical practice evaluation has been emphasized (Griffiths et al., 2020).

Perceptions of learners regarding the clinical learning environment have been shown to influence their motivation and engagement in practice (Govindarajulu et al., 2023). These findings are consistent with WHO's approach in developing the MATE (Midwifery Assessment Tool for Education) tool, which emphasizes the need for comprehensive and contextual evaluation of midwifery competencies. Noting variations in needs and resources, WHO encourages educational institutions to adapt appropriate evaluation methods to local contexts while still fulfilling global standards (Hunter et al., 2022). As a result, institutions of midwifery education need to approach multimodal evaluation that combines evaluation

objectives, direct observation, and self-reflection (Khajehpour et al., 2023). This can increase validity and reliability assessment, as well as strengthen development competence in a holistic way (Griffiths et al., 2023). In addition, evaluation should not only be done at the end of practice, but must become part of the learning process sustainably supported by the system, which comes back formative (Bradshaw et al., 2025). Evaluation will serve as a tool for learning while also measuring the accountability of professionals in education, clinics, and midwifery (Funa, 2024).

Midwifery Students' Perceptions of Clinical Learning Environment

Perceptions of midwifery students toward the clinical learning environment are crucial factors that determine the quality of their learning experience and the development of their professional competence. The clinical environment serves not only as a place for practice but also as a social and psychological space that influences students' motivation, self-confidence, and readiness to engage in real midwifery practice (Griffiths et al., 2020). Key aspects that shape positive student perceptions include active support from lecturers and clinical mentors, availability of patients with adequate case variety, and sufficient supporting facilities. Constructive guidance and a conducive interpersonal atmosphere can increase student comfort and active engagement in the clinical learning process. However, obstacles such as suboptimal collaboration between preceptors and educational institutions can reduce the effectiveness of feedback received by students, highlighting the need for improvement (Griffiths et al., 2023).

Experience that provides practical exposure to clinical skills is an essential aspect for students. Training based on competencies and simulations, such as neonatal resuscitation skills, significantly increases trust in oneself and readiness among students compared to conventional experience in clinical environments that are sometimes limited. This matter confirms the importance of a safe and supportive environment for learning and mastering skills in a repetitive and structured manner (Hakimi et al., 2021). In addition, the aspect evaluation clinic plays a role in forming perceptions. Uncertainty, consequences, differences, standards, and attitudes of testers in evaluation competence can cause stress and confusion for students, worsening the experience in the Study clinic. Therefore, strengthening communication and collaboration between examiners, students, and other stakeholders is very necessary for evaluation to become more transparent and supportive of student development skills (Wong et al., 2023). Stress and pressure factors in the environment clinics, such as the consequence of lack of staff and load work height, also affects student perception (Bradshaw et al., 2025).

Supporting friends of the same age becomes a crucial mechanism for overcoming isolation and boosting self-confidence. However, the fear of student requesting help from the coordinator for placement show the need to build a safe psychological environment in order to facilitate open communication (Bradshaw et al., 2025). Discussion groups and approaches to inclusive learning, practiced in an interdisciplinary manner, also enhance student involvement in learning clinics. Environmentally supportive and collaborative clinics play a role in reducing stress, increasing motivation, and strengthening professional student competence (Khajehpour et al., 2023). Although the majority perception of student nature is positive, some studies identify challenges like boredom, inappropriate method teaching,

and hierarchy strict social restrictions. This highlights the need for a development environment that is responsive to the emotional and social needs of students (Funa, 2024; Govindarajulu et al., 2023).

In general, the perception of student midwifery in the clinical environment is essential readiness. A supportive, diverse, and inclusive environment capable of pushing development skills, technical, communication, and behavior, holistic professional professionals (Firoozehchian et al., 2022; Yılmaz & Aktaş, 2023). The implementation of learning strategies that involve mentor support, transparent evaluation, and facilities that are adequate become key in generating effective learning experiences and empowering clinics for student midwifery (Griffiths et al., 2020; Khajehpour et al., 2023). However, the limitations in this study stem from variations in methodologies and geographical contexts across different studies. Hence, the study needs to be more continuation-focused and contextual to strengthen the generalization findings. Studies can also explore interventions specific to increasing aspects of psychosocial and communication in the environment clinic (Bradshaw et al., 2025).

Impact of Perception on Clinical Learning Outcomes

Students' and preceptors' perceptions of the clinical learning environment play a crucial role in determining successful learning outcomes in clinics, including cognitive, affective, and psychomotor domains (Griffiths et al., 2020). These findings align with Social Cognitive Theory, which emphasizes the dynamic interaction between learners and their clinical environment as essential for effective learning (Abdullah, 2019). A positive perception fosters a conducive learning atmosphere, enhancing motivation, active participation, and the development of effective clinical skills (Firoozehchian et al., 2022; Griffiths et al., 2020; Khajehpour et al., 2023). Conversely, negative perceptions can hinder these processes and affect learning quality. Supportive clinical settings have been shown to improve students' technical skills and critical decision-making abilities (Bagley et al., 2017). The results indicate that preceptors' perceptions of their role in the teaching and assessment process have a significant influence on student learning outcomes (Griffiths et al., 2023; Wong et al., 2023).

Harmonious and positive perceptions between preceptors and students strengthen the quality of mentoring relationships, which supports improved self-confidence and critical reflection abilities (Wong et al., 2023). This indicates the need for sustainable training and coaching for preceptors, ensuring a uniform understanding of learning objectives and evaluation criteria, which enables objective and fair competence evaluation. Furthermore, student perceptions of intensive practice experiences and opportunities for repetitive practice with direct feedback have been proven to increase knowledge, skills, and self-confidence (Hakimi et al., 2021). This approach aligns with Competency-Based Education (CBE) principles, which emphasize repeated practice and continuous evaluation to achieve clinical competence. Conversely, negative perceptions arising from resource limitations, stressful environments, and communication barriers can cause stress and lower learning motivation (Bradshaw et al., 2025; Funa, 2024). A key finding from this analysis is the importance of harmonizing perceptions among stakeholders in clinical environments, including students, preceptors, and examiners, to ensure assessment objectivity and fairness in competence evaluation (Bradshaw et al., 2025; Wong et al., 2023).

Misaligned perceptions, if left unaddressed, can lead to variability in learning outcomes that do not accurately reflect students' actual abilities, potentially creating gaps in the quality of clinical education. Additionally, positive perceptions of evaluation tools and clinical learning methods (such as MATE and OSCE) support active student involvement and encourage critical dialogue that improves clinical practice quality (Khajehpour et al., 2023). This demonstrates that easily understood and relevant evaluation tools are crucial in creating supportive and motivating learning environments, which ultimately contribute to optimal learning outcomes. Overall, this discussion confirms that positive perceptions of the clinical learning environment are important indicators that influence not only cognitive and psychomotor learning outcomes but also affective aspects, such as motivation, empathy, and interpersonal communication (Govindarajulu et al., 2023). This requires educational institutions to continuously monitor and manage student and preceptor perceptions to ensure the creation of conducive learning environments and maximum clinical learning outcomes (Firoozehchian et al., 2022).

Quality Improvement in Clinical Midwifery Education

Improving the quality of clinical midwifery education is a multidimensional challenge that requires a systemic and sustainable approach, as demonstrated by recent studies. Consistent with competency-based education theory and quality assurance principles, improving quality depends on integrating pedagogy, technology, and institutional collaboration (Janssens et al., 2023). Ongoing training for clinical lecturers and mentors, along with upgrading modern clinical facilities, are essential components (Griffiths et al., 2020). This aligns with studies emphasizing the role of trained mentors in providing constructive feedback as a key success factor in clinical learning (Mbakaya et al., 2020; Pienaar et al., 2022). Competency-based training, including the use of OSCEs, is effective in bridging the theory-practice gap and enhancing student self-confidence, consistent with the literature that demonstrates simulation and competency-based assessment strengthen clinical readiness and professionalism. The development and utilization of contextual evaluation tools, such as MidPaACT, are crucial for ensuring the quality of midwifery education (Bradshaw et al., 2025).

Continuous evaluation enables the identification of specific weaknesses, for example, in collaboration between preceptors and universities, which were also reported as a main obstacle in clinical learning (Pienaar et al., 2022). This research adds empirical evidence that evaluation tools designed with local context can increase the effectiveness of quality improvement interventions in clinical education (Bradshaw et al., 2025). A systemic approach using Cultural-Historical Activity Theory (CHAT) provides new perspectives in understanding complex dynamics in clinical environments (Wong et al., 2023). Tensions between examiner expectations in simulation and real practice, as well as the need for appropriate examiner training, underscore the importance of harmonizing evaluation standards (Ejlertsen et al., 2022). This finding supports the argument that developing holistic and contextual assessment standards can enhance the validity and reliability of clinical competence evaluation (Capper et al., 2023). The DREEM evaluation reveals that, although the academic environment is generally rated positively, there is a need to transition from a memorization-based learning approach to student-centered approaches (Govindarajulu et al., 2023). This

aligns with constructivist theory, which encourages active student involvement in building knowledge (Abdullah, 2019).

Additionally, an atmosphere free from intimidation and stress plays a crucial role in supporting student well-being and motivation, which in turn directly impacts clinical learning outcomes (Mramel et al., 2024). Strengthening the dual academic-clinical role of preceptors and enhancing student-preceptor interaction are crucial for bridging the gap between theory and practice (Yilmaz & Aktaş, 2023). Integrated learning models and blended approaches have been shown to enhance maternal and neonatal outcomes (Symon et al., 2024). Interpersonal skills such as communication, empathy, and teamwork are integral to midwifery education and align with global competency standards. Technology integration in education, including virtual simulations and digital platforms, can enrich clinical learning experiences (Firoozehchian et al., 2022; Khajehpour et al., 2023). However, technology adaptation must consider local context to avoid creating access gaps or ineffective use (Mramel et al., 2024). Supportive environments with effective supervision, open communication, and autonomy promote higher clinical competence. Valid, context-sensitive evaluation tools and active preceptor involvement are essential for quality improvement (Hunter et al., 2022a; Zhang et al., 2022). Going forward, adaptive, participatory, and locally relevant evaluation strategies are key to delivering woman-centered and responsive midwifery education.

CONCLUSION

This review explicitly addresses its research objectives by confirming that while existing evaluation tools (e.g., MidSTEP, MidPaACT, OMMID, OSCE) offer valuable insights into midwifery students' perceptions of the clinical learning environment, their major limitation is a lack of robust contextual responsiveness. Regarding the first research question, this review identified several validated instruments that have been employed across different educational contexts. However, these tools often fail to capture nuanced local dynamics, such as cultural communication patterns, hierarchical relationships, and resource constraints, which vary substantially across healthcare systems. In response to the second research question, we affirm the strong correlation between positive perceptions and improved learning outcomes across cognitive, affective, and psychomotor domains. Students who perceive their clinical environment as supportive demonstrate enhanced motivation, increased self-confidence, and improved clinical competence, but these positive perceptions are fundamentally shaped by specific, often unmeasured, contextual variables. Our scientific contribution is to critically highlight this gap, asserting the indispensable need for evaluations that deeply account for crucial psychosocial, cultural, and institutional factors. The evidence suggests that student perceptions are not merely subjective opinions, but rather critical determinants of educational effectiveness that influence the transfer of knowledge from theory to practice and the development of professional identity. This review contributes to midwifery education quality improvement by providing evidence-based recommendations for developing more appropriate and context-specific evaluation tools that employ participatory approaches, incorporate mixed-method designs, and establish validation protocols accounting for contextual variations while maintaining cross-cultural applicability. Future research must adopt a rigorous mixed-methods approach to advance midwifery clinical

education. This includes developing and rigorously validating novel, contextually tailored evaluation instruments that integrate quantitative and qualitative measures. Furthermore, cross-cultural comparative studies are crucial for understanding the diverse dynamics. Midwifery programs are urged to utilize these evidence-based insights to invest in faculty development and cultivate inclusive, supportive clinical environments that address the diverse and context-specific needs of their students.

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REFERENCES

- Abdullah, S. M. (2019). Social cognitive theory: A Bandura thought Review published in 1982-2012. *Psikodimensia*, 18(1), 85-100.
- Aboshaiqah, A. (2016). Strategies to address the nursing shortage in Saudi Arabia. *International Nursing Review*, 63(3), 499-506.
- Abuosi, A. A., Kwadan, A. N., Anaba, E. A., Daniels, A. A., & Dzansi, G. (2022). Number of students in clinical placement and the quality of the clinical learning environment: A cross-sectional study of nursing and midwifery students. *Nurse Education Today*, 108(1), 1-6.
- Ahmad, Y., Yani, A., & Achir, Y. (2020). Analisis faktor-faktor yang berhubungan dengan kualitas pengelolaan pembelajaran klinik. *Jurnal Keperawatan Suaka Insan*, 5(1), 27-34.
- Ashipala, D. O., Mazila, B., & Pretorius, L. (2022). A qualitative descriptive enquiry of nursing students' experiences of utilising a portfolio as an assessment tool in nursing and midwifery education. *Nurse Education Today*, 109(1), 109-110.
- Bagley, T. R., Park, T. R., & Burkot, C. (2017). The impact of clinical placement model on learning in nursing: A descriptive exploratory study. *Australian Journal of Advanced Nursing*, 34(3), 16-23.
- Bradshaw, C., Fitzpatrick, M., & Pettigrew, J. (2025). Midwifery students and preceptors shared experiences of practice assessment: A qualitative descriptive study. *Midwifery*, 147(1), 1-9.
- Capper, T. S., Haynes, K., & Williamson, M. (2023). How do new midwives' early workforce experiences influence their career plans? An integrative review of the literature. *Nurse Education in Practice*, 70(1), 1-11.

- Dolot, J. F., Wungouw, H. I., & Homenta, H. (2024). Persepsi mahasiswa terhadap Objective Structured Clinical Examination (OSCE) Fakultas Kedokteran Universitas Sam Ratulangi 2023. *E-Clinic*, 12(3), 421-427.
- Ejlertsen, C., Rosenstrøm, S., Kristensen, I. H., & Brødsgaard, A. (2022). Engaging in partnerships is the key to preserving and creating a trustful collaboration with vulnerable families: A focus group study. *Midwifery*, 114(1) 1-8.
- Firoozehchian, F., Zareiyan, A., Geranmayeh, M., & Behboodi Moghadam, Z. (2022). Domains of competence in midwifery students: A basis for developing a competence assessment tool for Iranian undergraduate midwifery students. *BMC Medical Education*, 22(1), 294-310.
- Funa A. A. (2024). Exploring clinical practice education for student midwives: Hospital and community opportunities and challenges. *Midwifery*, 139(1), 1-8.
- Govindarajulu, S., Rajasekar, G., Anbazhagan, R., Muthuvel, T., Subhavaishnavi, B., Maanasa, R. & Srijayanth, P. (2023). Assessment of educational environment of midwifery students in Auxillary Nurse and Midwifery Institutes, Tamil Nadu - A descriptive study. *Indian Journal of Community and Family Medicine*, 9(2), 155-160.
- Griffiths, M., Creedy, D. K., Donnellan-Fernandez, R., & Carter, A. G. (2023). Development and testing of the Midwifery Perceptions and Assessment of Clinical Teaching (MidPaACT) tool. *Nurse Education Today*, 130(1), 1-9.
- Griffiths, M., Fenwick, J., Gamble, J., & Creedy, D. K. (2020). Midwifery student evaluation of practice: The MidSTEP tool - Perceptions of clinical learning experiences. *Women and Birth*, 33(5), 440-447.
- Guejedad, K., Lahlou, L., Ikrou, A., Abouqal, R., & Belayachi, J. (2025). Factors associated with nursing and midwifery students' satisfaction with the clinical learning environment: A cross-sectional study in Morocco. *BMC Nursing*, 24(1), 304.
- Hajifoghaha, M., Nahidi, F., Alizadeh, S., Golezar, S., Dabiri, F., Mokhlesi, S. S., & Babaei, A. (2019). Midwives' educational needs in Iran: A narrative review. *Iranian Journal of Nursing and Midwifery Research*, 25(1), 1-6.
- Hakimi, M., Kheirkhah, M., Abolghasemi, J., & Hakimi, R. (2021). Investigating the effect of neonatal resuscitation simulation using a competency-based approach on knowledge, skill, and self-confidence of midwifery students using Objective Structured Clinical Examination (OSCE). *Journal of Family Medicine and Primary Care*, 10(4), 1766-1772.
- Hunter, B., Thomas, G., Wilhelmová, R., Trendafilova, P., Blaževičienė, A., Lynch, L., & Jokinen, M. (2022). Strengthening global midwifery education to improve quality maternity care: Co-designing the World Health Organization Midwifery Assessment Tool for Education (MATE). *Nurse Education in Practice*, 63(1), 1-8.
- Ige, W. B., Ngcobo, W. B., & Afolabi, O. (2024). Implementation of competency-based education for quality midwifery programmes in Africa: A scoping review. *BMC Nursing*, 23(1), 685-698.

- Janssens, O., Embo, M., Valcke, M., & Haerens, L. (2023). When theory beats practice: The implementation of competency-based education at healthcare workplaces: Focus group interviews with students, mentors, and educators of six healthcare disciplines. *BMC Medical Education*, 23(1), 248-259.
- Khajehpour, M., Keramat, A., Nahidi, F., Yunesian, M., Fardid, M., & Goli, S. (2023). Designing and implementing an OMMID midwifery professional competence mixed test: A multimethod, multiphasic study. *Midwifery*, 126(1), 1-8.
- Lee, T., Lee, S. J., Yoon, Y. S., Ji, H., Yoon, S., Lee, S., & Ji, Y. (2023). Personal factors and clinical learning environment as predictors of nursing students' readiness for practice: A structural equation modeling analysis. *Asian Nursing Research*, 17(1), 44-52.
- Liu, P., Yang, Z., Huang, J., & Wang, T. K. (2025). The effect of augmented reality applied to learning process with different learning styles in structural engineering education. *Engineering, Construction and Architectural Management*, 32(6), 3727-3759.
- Malik, G., McKenna, L., & Plummer, V. (2015). Perceived knowledge, skills, attitude and contextual factors affecting evidence-based practice among nurse educators, clinical coaches and nurse specialists. *International Journal of Nursing Practice*, 21(1), 46-57.
- Mansutti, I., Saiani, L., Grassetto, L., & Palese, A. (2017). Instruments evaluating the quality of the clinical learning environment in nursing education: A systematic review of psychometric properties. *International Journal of Nursing Studies*, 68(1), 60-72.
- Marta, M. A., Purnomo, D., & Gusmamel, G. (2025). Konsep taksonomi Bloom dalam desain pembelajaran. *Lencana: Jurnal Inovasi Ilmu Pendidikan*, 3(1), 227-246.
- Masyita, G. (2023). Hubungan persepsi mahasiswa tentang pembimbing klinik dengan pencapaian target ANC di RSKDIA Siti Fatimah Kota Makassar. *Jurnal Keperawatan Wiyata*, 4(1), 8-12.
- Mbakaya, B. C., Kalembo, F. W., Zgambo, M., Konyani, A., Lungu, F., Tveit, B., Kaasen, A., Simango, M., & Bvumbwe, T. (2020). Nursing and midwifery students' experiences and perception of their clinical learning environment in Malawi: A mixed-method study. *BMC Nursing*, 19(1), 87-95.
- Modarres, M., Geranmayeh, M., Amini, M., & Toosi, M. (2022). Clinical placements as a challenging opportunity in midwifery education: A qualitative study. *Nursing Open*, 9(2), 1015-1027.
- Mramel, M., El Alaoui, M., & Idrissi, R. E. J. (2024). Barriers to clinical learning skills development among midwifery students and newly qualified midwives in Morocco: A qualitative study. *Belitung Nursing Journal*, 10(2), 160-168.
- Pienaar, M., Orton, A. M., & Botma, Y. (2022). A supportive clinical learning environment for undergraduate students in health sciences: An integrative review. *Nurse Education Today*, 119(1), 1-13.
- Piumatti, G., Cerutti, B., & Perron, N. J. (2021). Assessing communication skills during OSCE: Need for integrated psychometric approaches. *BMC Medical Education*, 21(1), 1-8.

- Salajegheh, M., Sohrabpour, A. A., & Mohammadi, E. (2024). Exploring medical students' perceptions of empathy after cinemeducation based on Vygotsky's theory. *BMC Medical Education, 24*(1), 1-9.
- Salakpi, M., Asiedu, C., Agyare, D. F., Opoku-Danso, R., & Davis, A. (2022). Perception of nursing and midwifery trainees towards clinical environment at Cape Coast in the Central Region of Ghana. *Open Journal of Nursing, 12*(10), 709-723.
- Symon, A., Mortensen, B., Pripp, A. H., Chhugani, M., Adjorlolo, S., Badzi, C., Kharb, R., Prussing, E., McFadden, A., Gray, N. M., & Cummins, A. (2025). Validating the quality maternal and newborn care framework index: A global tool for quality-of-care evaluations. *Birth, 52*(2), 347-352.
- Wang, G., Xia, Y., Halili, X., Tang, S., & Chen, Q. (2023). Academic-practice partnerships in evidence-based nursing education: Protocol of a theory-guided scoping review. *Nurse Education in Practice, 69*(1), 1-5.
- Wong, W. Y. A., Thistlethwaite, J., Moni, K., & Roberts, C. (2023). Using cultural historical activity theory to reflect on the sociocultural complexities in OSCE examiners' judgements. *Advances in Health Sciences Education, 28*(1), 27-46.
- Yang, Z., Li, X., Lin, H., Chen, F., Zhang, L., & Wang, N. (2021). Midwifery students' perceptions and experiences of learning in clinical practice: A qualitative review protocol. *JBI Evidence Synthesis, 19*(5), 1172-1177.
- Yılmaz, S., & Aktaş, D. (2023). Midwifery students' perceptions of clinical learning experiences and midwifery preceptors in Turkey. *Nurse Education in Practice, 73*(1), 1-7.
- Zhang, J., Shields, L., Ma, B., Yin, Y., Wang, J., Zhang, R., & Hui, X. (2022). The clinical learning environment, supervision and future intention to work as a nurse in nursing students: A cross-sectional and descriptive study. *BMC Medical Education, 22*(1), 548-551.