

Effectiveness of Objective Structured Clinical Examination (OSCE) in Enhancing Clinical Competence among Obstetric and Gynaecological Nursing Students: A Narrative Review

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Abstract—Background: Clinical competence is a fundamental outcome of obstetric and gynaecological nursing education. Traditional clinical assessment may be affected by subjectivity, differences in clinical exposure, patient availability, and assessor variability. The objective structured clinical examination (OSCE) offers a structured and standardized method for clinical assessment. **Objective:** To synthesize evidence regarding the effectiveness of OSCE in enhancing and assessing clinical competence among obstetric and gynaecological nursing students. **Methods:** A narrative review of peer-reviewed literature addressing OSCE, nursing and midwifery education, clinical competence, and obstetric and gynaecological clinical skills was undertaken. Its literature was narratively synthesized, encompassing the design, implementation, student experiences, clinical performance, and educational outcomes. **Findings:** OSCE provides standardized assessment of psychomotor skills, clinical reasoning, decision-making, communication, patient safety, and professional behaviour. In obstetric and gynaecological nursing, OSCE can assess antenatal care, intrapartum care, normal delivery, postnatal care, immediate newborn care, breastfeeding counselling, family planning, gynaecological procedures, and obstetric emergencies. Reported benefits include improved objectivity, standardization, structured feedback, confidence, and opportunities for simulation-based learning. Important challenges include student anxiety, resource requirements, faculty workload, and limited authenticity of simulated performance. **Conclusion:** OSCE is a valuable component of competency-based obstetric and gynaecological nursing education. Its educational effectiveness is enhanced when integrated with simulation, supervised clinical practice, formative assessment, structured feedback, reflection, and authentic clinical experience.

Keywords— Objective Structured Clinical Examination; OSCE; clinical competence; obstetric nursing; gynaecological nursing; nursing students; clinical assessment; simulation.

I. INTRODUCTION

Clinical competence encompasses theoretical knowledge, psychomotor skills, clinical assessment, reasoning, decision-making, communication, patient education, professional behaviour, teamwork, and patient safety. Traditional written examinations primarily assess knowledge, whereas clinical assessment may be influenced by differences in patient exposure and examiner judgement. OSCE addresses these

limitations by providing standardized clinical stations, predetermined tasks, structured assessment criteria, and trained examiners.

Obstetric and gynaecological nursing requires students to develop complex competencies related to maternal and fetal assessment, childbirth, newborn care, reproductive health, counselling, and emergency management. Clinical exposure can vary because of patient availability, institutional policies, ethical considerations, and the unpredictable nature of maternity care. OSCE and simulation can therefore provide standardized opportunities to assess essential competencies.

The purpose of this narrative review was to synthesize available evidence regarding the effectiveness of OSCE in enhancing and assessing clinical competence among obstetric and gynaecological nursing students.

An OSCE consists of a circuit of clinical stations. Each station is designed to assess a specific competency. Students rotate through stations according to predetermined time limits and complete tasks based on standardized instructions.

OSCE Components:

The quality of an OSCE depends substantially on its design. A well-developed OSCE should be aligned with course outcomes and intended competencies. Important aspects include content validity, standardization, examiner preparation, appropriate scoring, feasibility, and adequate student orientation.

A recent systematic review conducted using meta-synthesis revealed significant variations in OSCE design across nursing education. The review emphasized broad competency assessment, appropriate station design, in-person assessment, and debriefing as important components of effective OSCE implementation.

II. METHODS

A narrative review design was used to provide an integrative overview of literature related to OSCE and clinical competence in nursing and midwifery education. The source review identified relevant literature through major electronic databases and scholarly platforms, including

PubMed/MEDLINE, Scopus, CINAHL, Web of Science, Embase, Google Scholar, and ScienceDirect.



Fig. 1: OSCE Key Components

Search concepts included "Objective Structured Clinical Examination," "OSCE," "nursing students," "midwifery students," "clinical competence," "clinical skills," "obstetric nursing," "gynaecological nursing," and "maternal health." Literature was prioritized when it involved nursing or midwifery students, OSCE, and outcomes such as clinical competence, performance, skills, confidence, satisfaction, or related educational outcomes.

The narrative structure of the evidence was based on the following: standardization, psychomotor skills, clinical reasoning, communication, confidence, feedback, anxiety, implementation challenges, and implications for obstetric and gynaecological nursing education.

III. FINDINGS

3.1 Standardization and Objectivity

OSCE reduces variability associated with opportunistic clinical assessment by providing standardized clinical tasks and predefined assessment criteria. This is particularly relevant in obstetric nursing, where students may experience different clinical situations during placement. Appropriately designed nursing OSCEs have demonstrated evidence of validity, reliability, and acceptability.

3.2 Clinical and Psychomotor Skills

OSCE allows direct observation of clinical performance rather than relying solely on theoretical responses. Relevant competencies include antenatal assessment, Leopold's manoeuvres, fetal heart rate assessment, preparation for

normal delivery, postnatal assessment, breastfeeding support, family planning counselling, and emergency management.

3.3 Clinical Reasoning and Decision-Making

Scenario-based OSCE stations can require students to recognize abnormal findings, prioritize care, make clinical decisions, communicate with healthcare professionals, and initiate appropriate interventions. Such stations may be particularly useful for simulated obstetric emergencies such as postpartum haemorrhage and eclampsia.

3.4 Communication and Professional Behaviour

OSCE can assess communication skills that may be difficult to evaluate consistently during busy clinical placements. Students can be assessed on introducing themselves, explaining procedures, maintaining privacy and dignity, obtaining cooperation, providing emotional support, and delivering health education.

3.5 Confidence and Learning

Self-directed learning, confidence, clinical judgment, and procedural practice may be supported by structured OSCE preparation and simulation. OSCE can function as part of a learning cycle involving teaching, demonstration, guided practice, simulation, formative assessment, feedback, reflection, and reassessment.

3.6 Applications

OSCE can be used in gynaecological, neonatal, emergency, postnatal, delivery, postnatal, intrapartum, and antenatal nursing. Emergency stations may include postpartum

haemorrhage, eclampsia, maternal shock, shoulder dystocia, cord prolapse, and neonatal compromise.

3.7 Challenges

Although OSCE is educational, it can also lead to student anxiety and requires a lot of resources, such as trained examiners, simulation facilities, equipment, space, time, and administrative coordination. Faculty needs to prepare for examiner calibration, station development, and scoring. Furthermore, simulated performance may not completely represent long-term clinical performance.

IV. DISCUSSION

The reviewed evidence indicates that OSCE is an important strategy for assessing and supporting clinical competence in nursing education. Its principal strength is the standardized observation of clinical performance. In obstetric and gynaecological nursing, this is particularly relevant because students may not encounter the same clinical conditions or emergency situations during routine placements.

OSCE also extends beyond examination by encouraging repeated practice, simulation, feedback, reflection, and remediation. However, it should not be considered a replacement for authentic clinical experience. An expanded approach to assessing competence can be achieved by combining OSCE with workplace-based assessment and supervised clinical practice.

Effective implementation requires competency-based blueprinting, standardized stations, appropriate scoring methods, simulation before assessment, formative feedback, examiner training, and integration with clinical practice. Attention to student orientation and anxiety is also important for creating a supportive assessment environment.

V. CONCLUSION

OSCE serves as a valuable educational and assessment tool for obstetric and gynaecological nursing students. It provides structured opportunities to assess psychomotor skills, clinical reasoning, decision-making, communication, patient safety, and professional behaviour. Its greatest educational value occurs when integrated with simulation, supervised practice, formative feedback, reflection, and authentic clinical learning. OSCE should therefore function as an important component of a comprehensive competency-based assessment programme rather than as a stand-alone examination.

REFERENCES

1. Sankarapandian C, Arulappan J, Alsenany S, Jayapal SK. Views and Satisfaction of Nursing Students Toward Objective Structured Clinical Examination and Traditional Clinical Examination: A Cross-Sectional Study. *Sage Open Nursing*. 2026;12. doi:10.1177/23779608261419202
2. Ha E-H, Lim E (2023) The effect of objective structured clinical examinations for nursing students. *PLoS ONE* 18(6): e0286787. <https://doi.org/10.1371/journal.pone.0286787>
3. Chabrera C., Diago E., Curell L. (2023). Development, validity and reliability of objective structured clinical examination in nursing students. *SAGE Open Nursing*, 9, 23779608231207217. <https://doi.org/10.1177/23779608231207217>
4. Bijayalaskhmi Dash. "A Systematic Review on the Effectiveness of Objective Structured Clinical Examination (Osce) In Comparison with the Traditional Method of Practical Examination." *i-manager's Journal on Nursing*, Vol. 12, Issue 1 (July 26, 2022).
5. Alaskar A., Subbarayalu A. V., Alfaraj E., Ramzi O. I., Alameri N. S., Alhababi A., Vijayan M. (2022). Health science students' perceptions about objective structured clinical examination (OSCE) as a method of clinical evaluation. *Electronic Journal of General Medicine*, 19(6), em416. <https://doi.org/10.29333/ejgm/12466>
6. Vijayalakshmi. S, Deiva K, Kathyayani B.V. Objective Structured Clinical Examination (OSCE) on Antenatal Assessment among Nursing students. *Asian Journal of Nursing Education and Research*. 2021; 11(3):401-4. doi: 10.52711/2349-2996.2021.0009
7. Cant R, McKenna L, Cooper S. Assessing preregistration nursing students' clinical competence: A systematic review of objective measures. *International Journal of Nursing Practice*. 2013;19(2):163–176. doi:10.1111/ijn.12053.
8. Goh HS, Zhang H, Lee CN, Wu XV, Wang W. Value of nursing objective structured clinical examinations: A scoping review. *Nurse Educator*. 2019;44(5)–E8. doi:10.1097/NNE.0000000000000620.
9. Vincent SC, Arulappan J, Amirtharaj A, Matua GA, Al Hashmi I. Objective structured clinical examination vs traditional clinical examination to evaluate students' clinical competence: A systematic review of nursing faculty and students' perceptions and experiences. *Nurse Education Today*. 2022;108:105170. doi:10.1016/j.nedt.2021.105170.
10. Kirwan C, Szafranska M, Coveney K, Horton S, Carroll L. Midwifery students' experiences of objective structured clinical examinations: A qualitative evidence synthesis. *Nurse Education Today*. 2022;113:105381. doi:10.1016/j.nedt.2022.105381.
11. Smith V, Muldoon K, Biesty L. The Objective Structured Clinical Examination as a strategy for assessing clinical competence in midwifery education in Ireland: A critical review. *Nurse Education in Practice*. 2012;12(5):242–247.
12. Evaluation of simulation using objective structured clinical examination among undergraduate nursing students: A systematic review. *International Journal of Africa Nursing Sciences*. 2023;18:100553. doi:10.1016/j.ijans.2023.100553.
13. Garrido-Bueno M, Romero Castillo R, Pabón Carrasco M. Application of the objective structured clinical examination in undergraduate nursing students: A systematic review with meta-synthesis. *Teaching and Learning in Nursing*. 2026;21(1)–e358. doi:10.1016/j.teln.2025.08.024.
14. Manar B. A Comparative Study of OSCE And Traditional Methods Of Evaluation on Skills of Selected Procedures Of Obstetrics And Gynaecological Nursing Among B Sc. Nursing 4th Year Students At Selected Nursing Colleges of Greater Noida, UP. *International Journal of Research and Analytical Reviews*. 2019;6(2):957–61.

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