



4530238. Integration of Point-of Care Ultrasound into the Undergraduate Obstetrics and Gynecology Curriculum: A structured Educational Initiative

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Background:

Point-of-care ultrasound (POCUS) is increasingly recognised as a practical, bedside imaging tool for clinical decision-making. Obstetric ultrasound is recommended as part of routine antenatal care; yet implementation in low- and middle-income countries (LMICs) is often constrained by limited equipment, training opportunities, and skilled providers. This manuscript describes the integration of a structured POCUS curriculum into the undergraduate obstetrics and gynecology (Ob/Gyn) rotation at the University of Global Health Equity (UGHE) in Rwanda.

Methods:

We implemented a structured educational initiative combining a three-hour interactive lecture, case-based collaborative learning, supervised bedside scanning, logbook requirements, and POCUS assessment within the Ob/Gyn clerkship. Core competencies included first-trimester assessment, second- and third-trimester obstetric assessment, gynecologic imaging, and recognition of selected Ob/Gyn emergencies. Student performance was assessed through written examination items, mid-rotation observed clinical encounters, and an end-of-rotation Objective Structured Clinical Examination (OSCE) station using real third-trimester pregnant volunteers as standardised patients.

Results

POCUS was incorporated into both formative and summative assessment. The end-of-rotation examination included five POCUS-focused multiple-choice questions and one 10-minute OSCE station assessing fetal presentation, placental location, amniotic fluid assessment, and biparietal diameter measurement. Among 30 students, the mean OSCE station score was 17.0/20, the median was 16.8/20, and scores ranged from 15 to 19/20. Examiners reported that students were well prepared, handled the probe confidently, and integrated ultrasound findings into clinical reasoning.

Conclusion:

Integrating POCUS into an undergraduate Ob/Gyn curriculum in Rwanda was feasible and educationally valuable. Embedding ultrasound within teaching, bedside practice, and assessment helped position POCUS as part of clinical reasoning rather than as an isolated technical skill. Future work should evaluate longitudinal skill retention, patient safety, learner confidence, and clinical impact during internship and early postgraduate practice.