

Small-group tutorial versus low-fidelity simulation in the delivery of emergency assessment teaching to medical students

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Abstract

Background: The ABCDE framework is a fundamental tool in the assessment of the critically unwell patient, and is commonly assessed in Medical School clinical examinations. In this study, 26 fifth-year medical students at the University of Oxford received an ABCDE assessment teaching session in either an interactive tutorial setting (discussing cases) or low-fidelity simulation setting (assessing a manikin with basic resuscitation equipment). Students completed a quantitative feedback form and multiple-choice questionnaire (MCQ) before and after the session.

Results: Students reported a significant improvement in their baseline confidence in performing an ABCDE assessment post-session, as well as feeling that the session directly improved their confidence, although there was no significant difference in score improvements between groups. However, students in the simulation group reported significantly improved confidence in airway management compared to the tutorial group. The session was highly rated by both groups for interactivity, delivery, content, usefulness and enjoyability. Student MCQ scores improved by 1.3 points out of 10 ($p < 0.01$) post-session.

Discussion: This study demonstrated that students found an interactive session on emergency assessment enjoyable and useful for their exams. Access to basic airway equipment in a safe simulated setting significantly improved confidence in airway management versus discussion alone. Students demonstrated good post-session knowledge retention, particularly for questions relating to procedural skills.

Conclusion: Simulation teaching may improve student confidence and competence in performing clinical skills, and may warrant further inclusion in Medical School curricula. However, reported confidence in emergency assessment overall, and rating of the session delivery and enjoyability, did not differ significantly between groups. Further study is warranted to assess higher-fidelity simulation in larger groups, for a wider range of commonly examined clinical assessments.

References (maximum three)

1. Thim, T., Krarup, N. H. V., Grove, E. L., Rohde, C. V. & Lofgren, B. Initial assessment and treatment with the Airway, Breathing, Circulation, Disability, Exposure (ABCDE) approach. *Int. J. Gen. Med.* 5, 117 (2012).