



Simulation as a Tool for Teaching Undergraduate Paediatric Clinical Assessment

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Background:

Medical simulation is a well-recognised tool in reducing anxiety and improving clinical confidence and competence in medical students (1). During the coronavirus pandemic a large proportion of medical students studied virtually with >23.5% of students studying online for >15 hours a week (2), reducing clinical exposure. We appreciate that this may affect confidence in clinical assessment. Studies have shown repeated exposure to simulation is important in building and retaining confidence in medical students (3). We developed a robust simulation programme at a children's teaching hospital for 20 fourth year undergraduate medical students from one higher education institution, aiming to establish whether simulation could improve students' confidence in assessing an unwell child.

Methods:

We surveyed 20 students on their confidence in assessing a child before and after the implementation of a seven-week simulation programme, running alongside their paediatric rotation. The structure of each simulation session is shown in Figure 1. APLS guidelines, the BNFC, and local protocols were available; as well as senior support if called. All teachers were trained in simulation teaching and debriefing. We collected qualitative and quantitative feedback through anonymous surveys.



Figure 1. Structure of a simulation session

Results

Initially, students felt 'scared', 'stressed', 'anxious' and 'inexperienced' about assessing a sick child and 'intimidated' 'terrified' and 'nervous' of simulation. Following the programme, 65% of students felt 'somewhat confident' in examining children. 94.7% of students feel that simulating acute scenarios will benefit their practice. Students appreciated the opportunity to 'practice' their clinical skills by having 'exposure' to an 'acute' scenario and to be able to 'practice making decisions'. One student commented that this is 'hard to come by on wards as you're often just observing rather than

assessing'. This learning was enabled through a 'relaxed' and 'comfortable' environment. 90% of students felt more confident about future simulation.

Analysis

This seven-week simulation programme improved student confidence in examining and assessing an unwell child, in addition to improving confidence for future simulation. Improvements to the programme would include high-fidelity simulation and assessing specific individual and team improvements.

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