CLEIMS: first report on a randomised trial of extended clinical immersion simulation to contextualise medical student learning and develop clinical reasoning

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Aims

To determine the educational effectiveness of extended clinical immersion simulation to develop medical students’ clinical reasoning and contextualize learning.

Background

Scarcity of clinical placements and heightened concern for patient safety have led to an increased focus on simulation methodologies for the early acquisition of clinical technical, human engagement and reasoning skills, in parallel with clinically-based learning opportunities in undergraduate medical education.(1) Students and clinical supervisors recognise that some clinical and reasoning skills are difficult to acquire solely through experiential learning in clinical settings, especially in shorter medical courses with shorter clinical placements. The Clinical Learning through Extended Immersion in Medical Simulation (CLEIMS) methodology combines the reasoning-development approach of Problem Based Learning(2) with high fidelity clinical simulation.(3) Students are divided into medical teams, each comprising 2-4 ‘interns’ and a designated ‘registrar’, who manage a simulated patient through an evolving story over the period of a week. Innovative elements include extensive use of trained simulated patients and relatives, technological simulations for emergency management and simulated after hours ‘on call’ experiences. A pilot of the methodology was extremely positively received by learners but it is resource intensive and definitive evidence of educational effectiveness will be required for sustainability.
Methods

Local ethics committee approval was obtained. 2010 Year 3 MBBS students were invited to enrol in the study and 65% of the cohort did (n = 98). Participants were randomised 1:1 to receive either the full CLEIMS methodology (intervention arm) or just the associated seminars and workshops without the contextualising extended simulation (control arm), during their one ‘in-school week’ in each of 2010 (Year 3) and 2011 (Year 4). The two arms will be compared in relation to knowledge and script concordance (reasoning) written tests, as well as a practical clinical skill test, at the end of each week, as the primary endpoint. Secondary endpoints will include performance in summative OSCEs and evidence of affective-domain learning on Interpretative Phenomenological Analysis of reflective journals.(4)

Results

98 students have enrolled in the study, which will proceed during 2010. By the time of the conference it is anticipated that 82 participants (84%) will have completed the first study week and primary endpoint data will be available for interim analysis.

Conclusions

First data from this randomised educational trial will be presented.

References


