

IN PRACTICE

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THE GREAT ESCAPE: A CLINICAL ENVIRONMENT SIMULATION ESCAPE ROOM ENHANCING MEDICAL STUDENTS' CONFIDENCE AND REFLECTIVE PRACTICE

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Introduction: Simulation in medical education is a well-established tool that produces a realistic experience in a safe learning environment and is used frequently in later years of medical training. Many medical students report immense apprehension and lack of confidence prior to commencing Foundation Year 1 (FY1) [1]. To address this, we undertook a quality improvement project that incorporated game-based [2] and experiential learning [3] principles. The aim was to promote student reflection on common clinical and non-clinical challenges they may face as a Foundation Doctor.

Methods: The escape room design encompassed a pre-existing simulation setup, incorporating key simulation equipment including a Laerdal SimMan manikin.

Twenty final-year medical students from the University of Birmingham Medical School participated in the escape room activity, working in groups of three or four. Before and after the escape room, students rated their confidence levels on a Likert scale (1-5) regarding various clinical tasks and non-technical skills relevant to FY1: conducting an A-E assessment; formulating differential diagnoses; initiating management plans; making referrals; teamwork; leadership; task delegation and dealing with uncertainty. Mean confidence ratings were calculated for each statement pre- and post-escape room. The data was analysed using the paired-sample Student t-test with statistical significance determined by a p-value of <0.01.

Qualitative data was obtained through student self-evaluation on the skills demonstrated in the escape room and how these assisted, or hindered, their escape. Students participated in an in-person reflective debrief after the escape room.

Results: Nine students succeeded in escaping the challenge. Analysis revealed a statistically significant increase in mean confidence ratings across six of the nine statements for all students.

Seventeen students reported identification of areas of practice to improve prior to commencement of FY1. Of these, common themes included conducting a thorough patient examination, management of sepsis, clear task delegation within a team, and medication prescribing. Common

reflective discussions from the debriefs included working efficiently in a time-pressured environment and focusing amidst distraction.

Discussion: The escape room has showcased an innovative and effective tool to help students identify their learning needs prior to FY1 and improve their confidence in common tasks in anticipation of their future clinical work. We recognise the limitations of qualitative data gathering and feedback bias from the students that successfully escaped. Overall, we believe that the gamified experience facilitated a greater student appreciation for the impact of non-technical skills in comparison to other simulation learning they have previously received.

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable

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