Figure 1-A129.

ORIGINAL RESEARCH

A130 **THE INFLUENCE OF PRE-DEFINED LEARNING OBJECTIVES AND HUMAN FACTORS DEBRIEFING ON SIMULATION-BASED ESCAPE ROOMS**

Simisola Sodeinde[1], Mattie Williams[1], Amanda Chang[1], Shuchi Kohli[1], Daniel Curry[1], Peter Springbett[1]; [1]*Maidstone And Tunbridge Wells NHS Trust, United Kingdom*

Correspondence: s.sodeinde@nhs.net

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Introduction: Debriefing is a vital aspect of simulation-based learning, enabling participants to reflect on their experiences, discuss challenges, and identify areas for improvement. In medical escape rooms (MERs), gamification and debriefing enhance participant engagement and motivation. This increases cognisance and curates discussions around non-technical skill acquisition and human factors that encourage healthcare professionals to practice safely and contribute to quality improvement [1].

Methods: Four simulation-based MERs were designed and implemented for randomly allocated penultimate medical students on clinical placement – incorporating two high-fidelity and two low-fidelity sessions delivered over four months. While these sessions encapsulated clinical assessment alongside linear puzzle solving, emphasis was placed on care escalation and the enhancement of non-technical skills.

Pre-defined learning objectives were adapted from the General Medical Council's 'Outcomes for Graduates', enabling the application of theoretical knowledge and communication skills to experiential learning approaches. Students were rewarded for good clinical and interprofessional practice, which were further explored during the debrief.

Results: Standardised feedback was obtained from all 54 students who participated using 5-point self-assessment Likert scales and free text questions. 95% responded strongly agree or agree to observed improvement in their non-technical abilities such as critical thinking, communication, decision-making and situational awareness, while 91% rated increased confidence in working in simulated team dynamics. Moreover, 97% of students found the debrief beneficial to overall clinical understanding and practice.

Qualitative feedback consistently highlighted positive enhancement of communication skills appropriate to their level. Furthermore, the debrief was praised for providing awareness of human factors and consolidating key learning points that influence patient health outcomes.

Discussion: By constructing clinically replicable simulations underpinning the key concepts of human factors, the gamified MERs provided an engaging and immersive learning experience that promoted the development of essential non-technical skills, reinforcing their importance in quality healthcare provision. This notion is consistently underscored by the critical role of debriefing as the central and indispensable component of the simulation experience [2].

Moreover, positive learning outcomes could be attributed to the structured debriefing approach, with focused pre-defined learning objectives. This approach utilises enhanced learning depth allowing for deeper understanding and reflective practice around key relevant outcomes, likely contributing to the success of the MERs [3].

Therefore, effective debrief facilitation that proactively addresses the significance of human factors in simulation and their impact on healthcare outcomes provides valuable pedagogical insights that could be applied to future real-world clinical practice.

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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