

IN PRACTICE

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VIRTUAL ON-CALL: A LOW-FIDELITY SIMULATION TO ENHANCE THE CONFIDENCE OF FINAL-YEAR MEDICAL STUDENTS IN MANAGING ON-CALL SCENARIOS

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Introduction: Final-year medical students often report feeling unprepared for managing the responsibilities of on-call shifts as foundation doctors, particularly in prioritisation, escalation, communication, and prescribing tasks [1]. Responding to bleeps has been identified as a particularly anxiety-inducing element of starting clinical practice [2]. Addressing this gap in preparedness is crucial for ensuring a safer transition to postgraduate training. The Virtual On-Call (VOC) simulation was developed to provide a realistic, low-fidelity, psychologically safe environment for final-year students to practice core on-call competencies. We aimed to evaluate whether participation in VOC improved students' self-reported confidence across key clinical domains and to explore student perceptions of the simulation's realism and educational value.

Methods: We implemented a low-fidelity simulation across two hospital sites (Maidstone and Tunbridge Wells) between early 2024 and 2025. Groups of 3–4 students carried simulated bleeps and responded to a series of ward-based on-call tasks, such as fluid prescribing, patient reviews, and escalating deteriorations using SBAR. Tasks were accessed from

designated ward envelopes, with no live patient interaction. Each session lasted one hour, followed by structured group debriefs. Six sessions were delivered. Students completed pre- and post-session surveys measuring confidence across six domains (prioritisation, prescribing, answering bleeps, note-taking, handover, and escalation) on a 5-point Likert scale. Free-text responses were collected to explore qualitative experiences. Descriptive analysis was performed.

Results: Of the 27 students completing pre-session surveys, 20 completed post-session surveys (completion rate: 74%). Confidence improved across all domains. The greatest improvement was seen in answering bleeps, with the mean confidence score increasing from 1.8 to 3.8. Initially, 85% of students rated their confidence as low (scores 1–2), compared to 75% rating it as moderate-to-high (scores 3–4) post-session. Qualitative analysis identified themes of increased confidence, appreciation of the session's realism, and the importance of practicing teamwork and escalation pathways.

Discussion: Participation in the VOC simulation significantly improved final-year students' self-reported confidence,

especially in managing bleeps and prioritising tasks. Students valued the realism, safe environment, and practical application of multiple skills simultaneously. Our findings suggest that low-fidelity, accessible simulations can effectively enhance undergraduate preparedness for clinical practice, supporting previous literature on simulation-based learning [3].

Ethics Statement: As the submitting author, I can confirm that all relevant ethical standards of research and dissemination have been met. Additionally, I can confirm that the necessary ethical approval has been obtained, where applicable.

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2. Monrouxe LV, Grundy L, Mann M, et al. How prepared are UK medical graduates for practice? *Med Teach*. 2017;39(1):38–43.
3. Motola I, Devine LA, Chung HS, et al. Simulation in healthcare education: a best evidence practical guide. *Med Teach*. 2013;35(10):e1511–30.

SUPPORTING DOCUMENTS – FIGURE 1-A34

