

## ORIGINAL RESEARCH

A71

IMPROVING STUDENT DOCTOR CONFIDENCE  
IN ON-CALL SKILLS THROUGH SIMULATION

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**Introduction:** Many final-year student doctors report feeling underprepared and lacking in confidence in essential skills for on-call shifts [1]. On-call duties are a core component of foundation training. On-call simulation improves confidence in non-clinical skills such as prioritisation and stress management [2,3].

This project introduced a simulated on-call event for final-year student doctors at the University of Sheffield, aiming to boost confidence in non-clinical skills and preparedness for Foundation Year 1 (F1) on-call responsibilities.

**Aim:** To evaluate the impact of a simulated medicine on-call event on student doctors' confidence in clinical and non-clinical skills.

**Methods:** 23 final-year student doctors from the University of Sheffield participated in a three-part event: group teaching, simulation lab, and hospital-based simulation.

Students completed anonymised pre- and post-event self-assessment questionnaires rating their confidence across seven domains: receiving SBAR handover, providing SBAR handover, prioritisation, stress management, escalation, clinical reasoning, and overall preparedness for F1 medical on-calls. Responses used a 5-point Likert scale (1 = not confident at all; 5 = extremely confident). Scores were

analysed using descriptive statistics and Mann-Whitney U analysis. The post-event questionnaire included additional feedback questions.

**Results:** 23 students completed the pre-event survey; 22 completed the post-event survey. 95.5% (21/22) reported increased confidence for medical on-calls; one reported no change.

The domain demonstrating greatest improvement was prioritisation: +2 in median and mode, and the highest mean increase: +1.55. Receiving SBAR handover and stress management increased by +2 in median and mode. Providing SBAR handover, escalation, and on-call preparedness increased by +1 in median and mode. Clinical reasoning remained unchanged in mode and median (score = 3) and had the lowest mean increase: +0.75. Mann-Whitney U analysis showed significant improvement in all domains individually (all p values <0.05), Figure 1. p values for mode (1.5), median (4), and mean (0) were all below the critical value at p<0.05 (8). **Discussion:** The simulation enhanced students' confidence in core aspects of medical on-call duties. The most notable gains were in the domains of prioritisation, stress management, and providing SBAR handovers. There may be a need for additional interventions to further enhance clinical reasoning skills within this simulation. This study provides good evidence that simulation-based education is a highly effective method of increasing the confidence of student doctors in the skills required for on-call responsibilities.

Some limitations of this study include incomplete data sets, subjectivity of the Likert scale, and a small sample size. Further studies are required to validate findings.

**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.

## REFERENCES

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3. Alan M Greenstein, Muniswamy Hemavathi. The bleep experience: preparing new doctors for on-call shifts. *Future Healthcare Journal*. Volume 7, Issue 1. 2020. Pages 84-85. doi.org/10.7861/fhj.2019-0020. <https://www.sciencedirect.com/science/article/pii/S2514664524007914>

## SUPPORTING DOCUMENTS – FIGURE 1-A71

