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A virtual 'hour on-call': creating a novel teaching programme for final-year undergraduates during the COVID-19 pandemic

Authors: Nicholas Harrison,[A] Shiv Sharma,[B] Gabriel Heppenstall-Harris,[A] Lauren Sommereux,[A] Michael Griffin,[C] Catherine Evans[A] and Alexandra Barnes[A]

Introduction

Historically, undergraduate medical education curricula have consisted of a mixture of lecture-based teaching, problem-based learning (PBL) and, more recently, *in situ* simulation. The ongoing COVID-19 pandemic has led to the suspension of much of the teaching carried out using these traditional methods due to social distancing requirements and self-isolation.[1] Although distance learning is not a new modality, the COVID-19 pandemic has necessitated the development of unique, safe and effective teaching programmes using emergent technology, such as Zoom and MS Teams. There is evidence that distance learning via videoconferencing has equivalence to face-to-face learning.[2] We discuss the results of a novel, virtual on-call preparation course delivered to final-year medical students studying at the University of Liverpool.

Materials and methods

Sessions consisted of a 2-hour virtual on-call, delivered via Zoom, with up to 12 final-year medical students per session. Sessions were designed and delivered by a group of junior doctors and consisted of an initial introductory presentation designed to outline the session and state its aims and objectives. Following this, participants and facilitators were allocated to 'breakout rooms' with a 2:1 participant to facilitator ratio. Breakout rooms simulated multiple 'bleeps' for patient reviews, which participants were asked to prioritise in order of urgency. Following this, a participant-centred debrief was carried out within breakout rooms, using a recognised model to ensure constructive feedback.[3] A rounding-up presentation concluded the teaching session, relaying key pieces of advice for the students. The sessions focused on non-technical skills, providing an opportunity for the students to develop their prioritisation, communication and team-working skills under pressure. Students' pre-and post-course confidence levels were collected and analysed using the Wilcoxon signed-rank test.

Authors: [A]Liverpool University Hospitals NHS Foundation Trust, Liverpool, UK; [B]Warrington and Halton Teaching Hospitals NHS Foundation Trust, Warrington, UK; [C]Wirral University Teaching Hospital NHS Foundation Trust, Birkenhead, UK

Results and discussion

25 participants have completed the programme so far. 24 participants completed the pre-course survey, of which 54% stated that they had had no formal teaching on the on-call element of foundation training. We saw a statistically significant improvement in students' confidence about their upcoming on-calls ($p<0.001$). 75% of participants described feeling unconfident for their first on-call in the pre-course survey and following the course, this figure fell to 4% (n=1). Reassuringly, given the novel aspect of an online on-call preparation course, 100% of participants felt that the online format worked 'very well' (87%) or 'well' (13%). All 100% of participants stated that they would recommend this course to their peers. Overall, we saw a significant improvement in perceived confidence in managing all clinical scenarios and non-technical skills covered in the course ($p<0.01$).

Conclusion

This near-peer teaching programme, delivered remotely though a videoconferencing system, has produced a consistent improvement in final-year medical students' confidence about their upcoming on calls. Furthermore, it has provided students with an opportunity to develop key skills that will be essential to them as foundation doctors. As the course develops, we aim to provide further evidence of the benefits of this intervention and hopefully popularise this method of teaching during the COVID-19 pandemic and beyond. We plan to offer this intervention to all final-year medical students within the University of Liverpool. ■

Conflicts of interest

None declared.

References

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