



An untested approach to facilitating visually enhanced mental simulation online with multiple learners: A mini guide

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ABSTRACT

Background: The COVID-19 pandemic has affected the world in every aspect. Many universities and education centres adapted their teaching to online education¹. Virtual simulation has been endorsed by stakeholders not only for teaching healthcare students and workers, but also to be counted as practice hours for students². We propose an approach to facilitate simulation-based education (SBE) online in an interactive manner for multiple participants.

Methods: Visually enhanced mental simulation (VEMS) is a low fidelity yet very immersive and engaging educational activity used for participants to practise non-technical skills such as decision-making and communication while others observe³. Unlike ordinary mental simulation, participants can engage in VEMS as in a full-scale scenario-based simulation session, while being observed by peers. It is supported with visual elements such as a patient poster and laminated equipment cards for participants to illustrate the actions performed. Actions and patient parameters are also recorded with the timing by a facilitator on a white board. The scenario is followed by a debriefing involving all participants and observers.

Recommendations: VEMS can be adapted to the online environment and be facilitated through platforms such as Microsoft Teams, Skype, Zoom, GoToMeeting, or Cisco WebEx easily using a shared screen with Microsoft PowerPoint and their associated chat function or the facilitator's web camera facing a noticeboard. A patient pictogram and transparent background equipment images can be used in PowerPoint to illustrate the actions verbalised by the participants. The facilitator can speak as the patient and illustrate and write down everything in PowerPoint as the participants engage in the scenario, so all the other session attendees can observe. Everyone can then attend the scenario debriefing online.

Conclusion: Online VEMS offers an opportunity for participants to practise non-technical and communication skills. It is a low fidelity and low-cost approach to facilitating SBE that still needs to be tested with actual learners for ease of use, acceptability, and educational effectiveness.

Keywords: virtual simulation, mental simulation, online simulation, interactive, interprofessional

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