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LETTER

A Response to "Evaluating the Usefulness and Acceptability of a Revision-Purposed 'Specialties' Webinar for Educating UK-Based Fifth and Final Year Medical Students During the COVID-19 Pandemic: Is This the Future of Medical Education?" [Letter]

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Dear editor

We would like to thank Cooper et al[1] for their study in which they looked at the efficacy of online web-based seminars in medical education. In this study, the authors conducted webinar tutorials on specialities written examinations revision materials. Various parameters including level of confidence before and after the tutorial were quantified using questionnaires. While this concise study did show the efficacy of webinars in teaching medicine, we identified certain areas of the research that the authors could have addressed to strengthen their research.

Cooper et al used questionnaires before and after their webinar intervention to measure outcomes including level of confidence and knowledge of the participants. While the questionnaire itself is comprehensive and covers a broad aspect of webinar-based teaching, there does not seem to be any external validation for the questions. Some of the questions in the questionnaires can be misleading; the question regarding COVID-19 and its impact on the student ability to learn and revise can be ambiguous. It may refer to the decrease in the innate capacity of the student to learn, or the decrease in efficacy due to lack of clinical exposure during the pandemic. Furthermore, such questionnaires are inherently vulnerable to recall bias, with participants who enjoyed the lecture being most likely to recall more content and therefore be more confident following the webinar. Most importantly, all data collected through this questionnaire are self-reported. In fact, according to Barnsley et al,[2] there seem to be no correlation between self-reported level of confidence and the actual observed performance of clinical skills.

Cross-sectional nature of this study means that all data are extracted from a single webinar. A longitudinal study involving multiple lectures across a wider range of topics and involving a larger pool of lecturers would have been preferable in accurately comparing webinar tutorials to face-to-face teaching. Some of the data collected were not represented at all in the results section; for instance, a summary

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of free-text responses in the questionnaires would have been a good supplementary data. A more fundamental issue in the study design is the lack of a control. The questionnaires compare knowledge and confidence levels of students pre- and post- webinar tutorial. There is very little comparison between webinar and face-to-face tutorial. The data show that webinar tutorials are somewhat useful but add little insight into their capacity as alternatives to face-to-face teaching.

This study by Cooper et al certainly shows a promising future for webinars to be used as an integral part of medical education. These findings are echoed by more comprehensive studies involving a larger sample population, including the national cross-sectional survey by Dost et al.[3] To further reinforce this study, the authors could consider utilising knowledge-based quizzes alongside the self-reported questionnaires. The post-tutorial questionnaires can be extended to measure knowledge retention and tutorial content can also be expanded to cover practical aspects of medical education. Findings from these future studies could be used to optimise webinar tutorials for maximum pedagogical effect.

Disclosure

The authors report no conflicts of interest in this communication.

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