

Perceptions and expectations of medical students and junior doctors in training: blended learning approach for medical education initiatives

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Background and objective

Evaluating learners' end-user experience is key to developing sustainable models. This study aimed to evaluate standalone virtual and blended learning during and after the COVID-19 pandemic among medical students and junior doctors.

Materials and methods

Medical students and junior doctors in the West Midlands were invited to complete an anonymised 26-item online survey from January to May 2021 about their experiences with virtual medical education. A 5-point Likert scale was used to establish the degree of agreement and disagreement of participant opinion and perception. We further explored the experiences of 85 junior doctors about blended medical education at regional learning days between August and September 2021.

Results and discussion

A total of 290 (170 medical professionals (median age (interquartile range (IQR)) 35 years (32–39); male:female ratio –1.23:1) and 120 medical students (median age (IQR) 21 years (19–22); male:female ratio 3.72:1) responses were received. While 45.0% students and 74.7% junior doctors agreed virtual learning aided with clinical and community practice, 72.5% students and 38.3% reported current virtual learning models did not provide the same quality as face-to-face teaching. 54 (45.0%) students and 127 (74.7%) junior doctors agreed that virtual learning aided with clinical and community practice. However, 87 (72.5%) students and 65 (38.3%) disagreed that virtual learning provided the same quality of teaching as in-person teaching. Poor connectivity (98 (81.6%) students and 82 (48.3%) junior doctors) was the most common technical issue reported in the survey. The preferred ratio of face-to-face teaching in relation to virtual teaching among medical professionals and medical students was 0.54:0.46 and

0.67:0.33, respectively. The majority preferred blended approach (95 (55.9%) of junior doctors and 82 (68.3%) of medical students) for future medical education activities.

The blended model approach helped improve performance compared with standalone face-to-face sessions (blended vs face to face; 55.8% vs 33.3%; $p<0.05$) and allowed achievement of learning-objectives effectively (80.8% vs 51.5%; $p<0.05$). While virtual attendance helped remove inhibitions to engage in discussions (40.4% vs 27.3%; $p<0.05$), the traditional model of in-person attendance provided a sense of community (86.5% vs 93.9%; $p=0.236$) and an opportunity for peer-to-peer support (88.4% vs 100.0%; $p=0.402$). There were no significant technical difficulties reported by virtual attendees compared with face-to-face attendees (23.1% vs 12.1%; $p=0.211$).

Conclusion

Our findings indicate that while virtual learning is beneficial for theoretical learning, participants did not favour virtual learning platforms for learning practical skills. A combination of face-to-face and virtual sessions was preferred by both medical students and junior doctors for future medical education. ■

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