Evaluating the Efficacy of Online Teaching for Neuroscience, Neurology & Neurosurgery

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Aims: The current climate brought forth by the COVID-19 pandemic has caused considerable changes in academic teaching at the undergraduate and postgraduate level. Online teaching and webinars over video conferencing platforms have become the new standard for delivery of material. Here we evaluate the efficacy of online webinars in the area of Neuroscience, Neurology and Neurosurgery.

Methods: We delivered 10 online webinars across 10 weeks, with one or two speakers, covering a range of topics across the fields of Neuroscience, Neurology and Neurosurgery. Feedback was gathered anonymously using an online feedback form following the event.

Results were statistically analysed and significance reported using the Wilcoxon signed-rank test.

Results: Our results show a statistically significant increase in the attendees' self-reported knowledge on the subject, before and after the webinar ($P < 0.0001$, $n = 117$); this represents a 57.3% increase in self-reported knowledge. Our feedback indicated that of all attendees across the 10 webinars, 82.9% rated the event overall "Very Good", 79.5% were "Very Satisfied" with the organisation of the event, 84.6% with the speaker(s), 76.9% with the content of the event and 82.9% with the format of the webinar.

Conclusions: In summary, our analysis shows that delivering Neurological and Neurosurgical teaching via an online platform is a viable and effective method of delivering knowledge. This finding has significant implications not only in the current response to the COVID-19 pandemic, but also in the future provision of medical education at the undergraduate and postgraduate level.