

Changes in Medical Education as a Consequence of the COVID-19 Pandemic: A Reflective Piece

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References

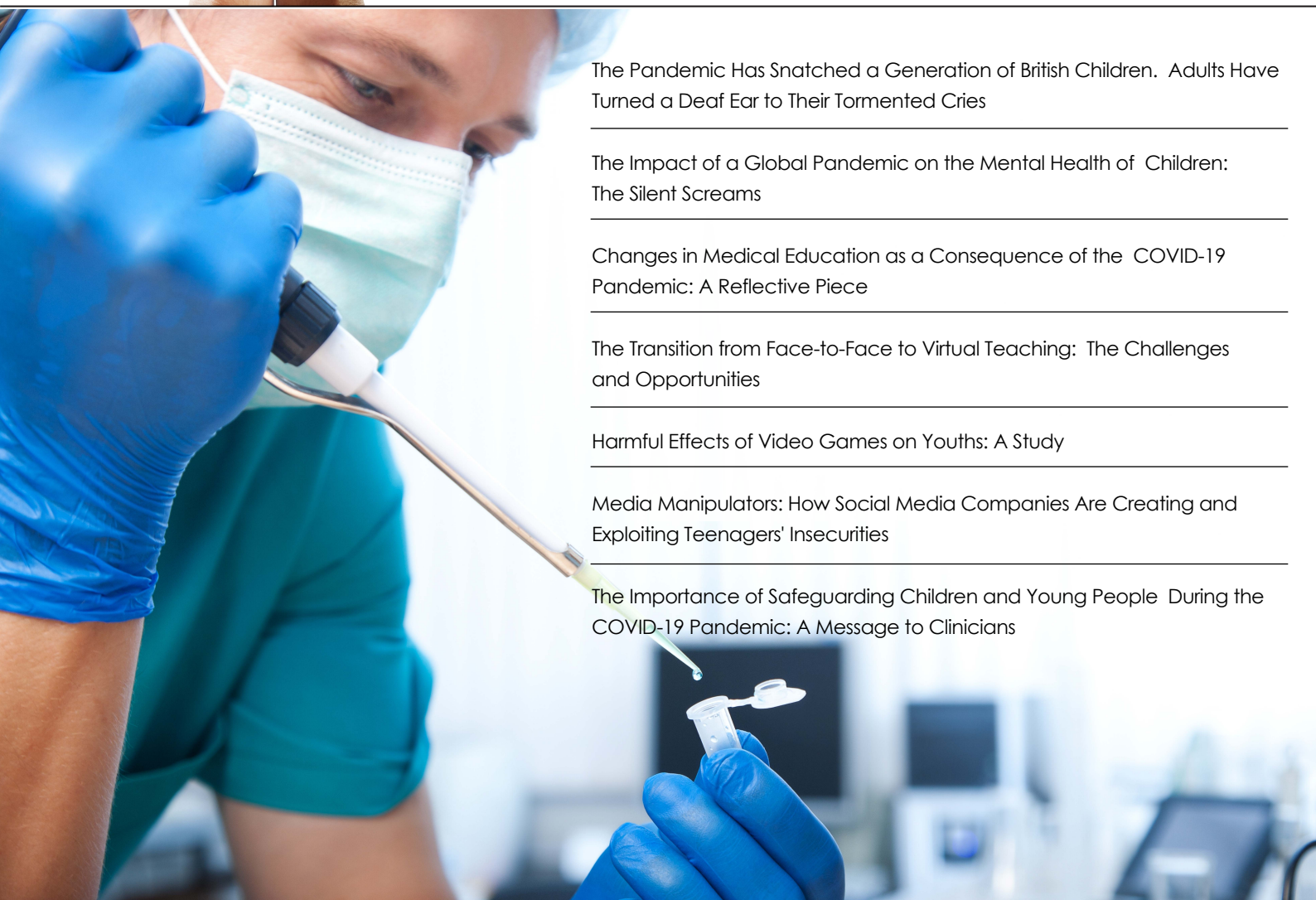
1. Hickland M, Gosney E, Hare K. Medical student views on returning to clinical placement after months of online learning as a result of the COVID-19 pandemic. *Medical Education Online*. 2020;25(1):1800981.
2. Statement on Clinical Placements. *Medschools.ac.uk*. 2020. [accessed 28 Dec 2020] Available from: <https://www.medschools.ac.uk/media/2646/statement-on-clinical-placements.pdf>



WJMER

World Journal of Medical Education and Research

An Official Publication of the Education and Research Division of Doctors Academy



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ISSN 2052-1715

Special Issue



Changes in Medical Education as a Consequence of the COVID-19 Pandemic: A Reflective Piece

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Abstract

The COVID-19 pandemic has impacted medical education in numerous ways globally. As national lockdown measures prevent in-person teaching, institutions around the world have sought after virtual alternatives. The delivery of teaching and the assessment methods have had to change swiftly in order to adapt to the ongoing crisis caused by the pandemic. In this article, we reflect on the challenges and opportunities presented within the context of medical education as a consequence of COVID-19.

Key Words

Medical Education; Coronavirus; Medical Students; Assessments

WJMER, Vol 25: Issue 1, 2020

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Since the introduction of a national lockdown due to the COVID-19 pandemic, all medical schools in the United Kingdom (UK) have reduced face-to-face teaching and assessments. As a result, clinical medical students have suffered a significant loss of clinical contact, and they have thus experienced a lack of specialty-specific clinical skills practice. Although several medical schools have compensated for the loss of in-person clinical teaching through virtual alternatives, the fact remains that students are not able to learn through interaction with patients.¹ The cancellation of clinical placements has left a gap in their training.¹

However, during the academic year 2020/2021, the Department of Health and Social Care in England has deemed clinical medical students as “essential key workers”.² As a consequence, clinical medical students are allowed to return to placements, despite ongoing lockdown measures, and they have access to COVID-19 testing.² It is vital that medical students should also continue to receive teaching and supervision on clinical placements.²

As the UK enters a further lockdown from the end of December 2020 and into the new year,

we reflect on the challenges and opportunities presented to medical education as a consequence of the COVID-19 pandemic in the year 2020.

What challenges have medical students faced in the context of medical education?

1. The cancellation of elective procedures and face-to-face clinics due to staff shortages and social distancing measures has consequently reduced the opportunities available for medical students to examine and interact with patients.
2. Disruption to clinical structured examinations such as OSCEs has changed the way students are assessed. A minority of universities have replaced the OSCEs with an online assessment.^{3,4}
3. Pre-clinical medical students are affected by the fact that lockdown restrictions and social distancing measures prevent universities from organising laboratory-based practical sessions and anatomical dissection lessons. Pre-clinical students must now undertake the majority of their course (lectures; case-based learning; problem-based learning sessions) virtually.

4. The mental health of medical students should be safeguarded during the pandemic due to increased isolation and the many hours that they must spend on online learning.⁵ A recent survey on the implications of lockdown measures showed that medical students have felt emotionally detached from their friends and family throughout the pandemic.⁶ This has subsequently had a knock-on effect on their mental health and wellbeing.⁶ The study also reported that quarantine measures have resulted in an overall decreased work productivity, performance, and motivation to learn and study.⁶
5. Students also report other negative effects of continuous online learning, such as sleep disorders due to the increase in “screen time usage”, dry eyes, and headaches.⁷

With all that said, the pandemic has taught us novel ways to deliver teaching.

What opportunities have been presented to medical education?

1. The use of virtual platforms such as Blackboard Collaborate, Zoom and Microsoft Teams as a replacement of face-to-face lectures has made learning more accessible for students, despite lockdown measures.
2. Administrative medical school staff have taken this opportunity to develop innovative methods of assessments through virtual platforms to replace paper-based examinations. For example, Imperial College London School of Medicine has converted its summative assessments to open-book examinations (OBE) in response to the pandemic.⁸
3. The uprising of virtual conferences has enabled national and international events to become more accessible to medical students and trainees globally. Delegates can participate in these virtual conferences from the comfort of their own home and save the cost of travelling to a different city or country.

An aspect about which medical students are perhaps the most concerned is how they will be assessed in examinations, given their importance in future applications for

Foundation Programme and Specialty Training. Adopting OBEs to assess students at this time of a pandemic offers an avenue to explore. The future of medical education would arguably benefit from a nationwide survey - targeting both medical students and medical school staff - on the prospects of organising future assessments as OBEs.

We believe that, if the questions are designed aptly, medical schools could create OBEs in which students will not be able to find the answers through a simple Google search. Rather, students would be required to extract information from various specialties and/or fields and connect the dots in order to answer the question. Moreover, the exam could require students to respond by writing a short passage of text, as opposed to taking a single-best answers (SBA) format. This form of assessment, to a great extent, arguably emulates real-life practice.

While assessments play a key role in the process of learning, the component of teaching is equally, if not more, important. We believe that the teaching delivered during the pandemic shies from traditional face-to-face teaching in many aspects. This pandemic has taught us the importance of in-person engagement and human interaction, and this is one component that virtual learning cannot offer.

Conclusively, the COVID-19 pandemic has significantly changed medical education around the world. While the use of virtual platforms for lectures and tutorials is useful in the current situation, it can quickly become monotonous and mundane. Furthermore, the replacement of OSCEs with online assessments disregards its main purpose, which is to assess clinical examination and reasoning; critical skills expected in a future junior doctor.

Despite unprecedented challenges and uncertainty, UK medical schools have tried to adapt to the current lockdown measures to ensure learning, teaching and training can continue under the current circumstances. Although virtual learning and teaching are sub-optimal to face-to-face experiences, we believe that these changes are merely a “symptom” of

the COVID-19 pandemic which will “recover” once the “infection” ends.

References

1. Hickland M, Gosney E, Hare K. Medical student views on returning to clinical placement after months of online learning as a result of the COVID-19 pandemic. *Medical Education Online*. 2020;25(1):1800981.
2. Statement on Clinical Placements. *Medschools.ac.uk*. 2020. [accessed 28 Dec 2020] Available from: <https://www.medschools.ac.uk/media/2646/statement-on-clinical-placements.pdf>
3. Your questions answered – assessment | Coronavirus | King's College London. *Kcl.ac.uk*. 2020. [accessed 28 Dec 2020] Available from: <https://www.kcl.ac.uk/coronavirus/students/assessment>
4. Kakadia R, Chen E, Ohyama H. Implementing an online OSCE during the COVID-19 pandemic. *Journal of Dental Education*. 2020;. doi: 10.1002/jdd.12323
5. Dedeilia A, Sotiropoulos M, Hanrahan J, Janga D, Dedeilias P, Sideris M. Medical and Surgical Education Challenges and Innovations in the COVID-19 Era: A Systematic Review. *In Vivo*. 2020;34(3 suppl):1603-1611. doi: 10.21873/invivo.11950
6. Meo S, Abukhalaf D, Alomar A, Sattar K, Klonoff D. COVID-19 Pandemic: Impact of Quarantine on Medical Students' Mental Wellbeing and Learning Behaviors. *Pakistan Journal of Medical Sciences*. 2020;36(COVID19-S4). doi: 10.12669/pjms.36.covid19-s4.2809
7. How online learning can affect student health. *The Johns Hopkins News-Letter*. 2020. [accessed 28 Dec 2020] Available from: <https://www.jhunewsletter.com/article/2020/04/how-online-learning-can-affect-student-health>
8. Tapper J, Batty D, Savage M. Medical students take final exams online for first time, despite student concern [Internet]. *the Guardian*. 2020 [cited 26 December 2020]. Available from: <https://www.theguardian.com/education/2020/mar/22/coronavirus-forces-medical-students-sit-final-exams-online>

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