

How has medical education been affected during this COVID-19 pandemic. How have you adapted your learning style and/or clinical practice?

Name: Parivrudh Rajeev Sharma

Year: 4

University: University of Aberdeen

Introduction

Undergraduate medical education, prior to the COVID-19 pandemic, involved a meticulous balance between theoretical and practical training. Whilst both types of training are vital in medicine, practical and hands-on education are commonly described to be the most powerful learning tools within medicine.^{1,2} Due to this, undergraduate medical education was especially disrupted at the start of the COVID-19 pandemic in the UK. Delivering medical curricula involving practical simulations, patient actors, and clinical examination teaching was a challenge as universities had to ensure student safety whilst not compromising the quality of medical education. However, it is also important to note that in contrast to the disruption, the COVID-19 pandemic has also served as a catalyst to the positive transformation of certain key areas within medical education.³ In this essay I would like to discuss the implications of COVID-19 on medical education and how this has affected my learning and experience of clinical practice at an undergraduate level.

Changes within medical education

Medical schools throughout the UK have had the overwhelming task to replan the delivery of their entire curricula, including examinations, to students in an incredibly short period. A major change seen within many different medical schools was the adoption of online assessments, instead of traditional written examinations.⁴ With regards to the concern surrounding the security of online assessments, universities took certain measures such as limiting the duration of online assessments and randomisation of question order for each student to ensure the validity of these assessments. Overall, this change had a mixed response from the undergraduate medical community as assessments undertaken at home are much more susceptible to disturbances and interruptions if the student is residing with other individuals. Moreover, students who are directly affected by COVID-19 e.g., those who are actively caring for their unwell family members, may be forced to postpone their assessments altogether.

In a similar manner, the vast majority of pre-clinical teaching is now also delivered through online platforms and webinars as opposed to in lecture halls.⁵ This is a considerable change from the pre-COVID medical education era. The advantages of this approach involve increased safety for students as it may not be possible to socially distance in a lecture hall, ease of access to lectures and improved time-efficiency as students do not need to travel to and from university. From a clinical teaching perspective, as non-essential surgeries and clinics were initially cancelled at the start of the pandemic, senior medical students on placement may have missed out on vital experience in certain specialities. However, several medical schools

have responded to this by providing additional online teaching which was not available to students before. The pandemic has essentially seen an increased dependence on the use of online teaching and resources, perhaps allowing undergraduate curricula to be less focussed on face-to-face teaching in the future. Even though this approach has led to more teaching available to students, it is important to note that practical skills education such as patient examinations need to be practiced and therefore may have suffered as a result of the focus on online lectures.¹ Ultimately, providing more online webinars and resources for students is a step in the right direction and has assisted in the modernisation of undergraduate medical education as a whole.

Personal experience

The COVID-19 pandemic has resulted in numerous changes to my personal learning style. Prior to the pandemic, my colleagues and I had formed a revision group and aimed to discuss a single clinical speciality per week. This would involve booking a room at our university library every week and spending time going over various challenging topics within the chosen speciality for that week. Additionally, we would aim to practice the relevant practical skills within that speciality, e.g., the cardiovascular examination if revising cardiology. For the remainder of the week, I would supplement this learning style through online question banks and lecture slides provided by my medical school. Prior to the pandemic, my clinical attachments involved reviewing patients on wards, surgical exposure in theatre, and shadowing various different secondary care clinics.

Since the pandemic, the biggest change to my learning style has been the inability for our study group to meet in person and practice clinical examination skills. On account of this, we have been utilising group video calls to continue our revision sessions. Due to the difficulty of practising clinical examination skills over video calls, I have been instead focused on practicing these skills individually at home and whenever I get an opportunity on clinical placements. Additionally, due to the pandemic there has been an increase in awareness of online study resources by various different specialist societies available to medical students, and I have been implementing more of these resources within my revision schedule. During our group sessions, we have been alternatively focusing more on medical history taking over video and phone calls, as many of our placements in secondary care clinics and primary care now involve telephone consultations with patients. This had a major effect on my primary care attachment, as a lot of my time with general practitioners was spent listening in to consultations over the phone. In comparison with my peers in the year above, I discovered how different their primary care attachment was prior to the pandemic as they were regularly involved in home visits, visiting care homes, in addition to viewing numerous face-to-face consultations during the day. Nevertheless, my primary care experience was still excellent despite taking place during the pandemic as it placed further emphasis on understanding risk and knowing when it was crucial to meet the patient in person.

Conclusion

Ultimately, the COVID-19 pandemic has brought many changes and challenges to undergraduate medical education which tutors and medical students are still trying to acclimatise to. My personal learning style is continuously changing, and this flexibility has been further strengthened as a result of the constantly changing landscape of the pandemic.

References:

1. Scheele F. The art of medical education. *Facts Views Vis Obgyn* 2012;4(4):266-269.
2. Teunissen PW, Scheele F, Scherpbier AJJA et al. How residents learn: qualitative evidence for the pivotal role of clinical activities. *Med Educ* 2007;41(8):763-770.
3. Lucey CR, Johnston SC. The Transformational Effects of COVID-19 on Medical Education. *JAMA* 2020;324(11):1033-1034.
4. The Guardian. Medical students take final exams online for first time, despite student concern.
<https://www.theguardian.com/education/2020/mar/22/coronavirus-forces-medical-students-sit-final-exams-online> (date last accessed 04 January 2021).
5. BMA. Lecture over – medical education in the time of COVID-19.
<https://www.bma.org.uk/news-and-opinion/lecture-over-medical-education-in-the-time-of-covid-19> (date last accessed 07 January 2021).