IMPACT OF COVID-19 ON MEDICAL EDUCATION

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ABSTRACT

The Corona Virus Disease, a new virus discovered in Wuhan, China disrupted the health care and education system all over the world. To ensure the viability of the medical program, continuing education via online platform was deemed necessary. The universal accessibility of online resources and its ability to aid students' engagement informed this decision. Indeed, the traditional medical education has never been challenged this way especially when stakeholders have had to continue medical education as well as play their role in combating the virus whilst also ensuring their own safety. All over the world, online platforms have allowed students attend classes virtually in real time although assessment has been challenging but has not halted with the availability of timed multiple choice questions, oral exams and simulation based assessment to demonstrate and determine competence. There is the post-pandemic catch up in the light of lessened impact of the pandemic to ensure competent, independent medical graduates. This article discusses the challenges and advantages of the pandemic as the impact of COVID-19 on Medical Education.

Keywords: *COVID-19, Virtual Classes, Students, Medical Educators*

INTRODUCTION

Amongst the far reaching effects of the COVID-19 pandemic was the closure of medical schools. Instructions in schools in most Nigerian universities had been majorly physical and most of the clinical rotations had been in the various Teaching Hospitals, Federal Medical Centers and accredited Private Medical Universities. Clinical rotations for medical students were put on hold. However, this did not halt learning but lead to more innovative ways of learning. Medical education in Nigeria has not escaped this development especially with the introduction of novel ways of teaching such as virtual classes held via zoom or Google Meet; all of this in a bid to close the inherent gaps between the feasibility of teaching and learning and the standard of medical education in the face of physical and social distancing.

The pandemic has also had an impact on the level of competence of medical graduates[5] with medical students missing what they would have learned via clinical rotations. It has also challenged the conventional practice[5] and made students and educators value the importance of resources for remote learning and assessment[2] especially with the advocation of even more novel developments in the United States such as videos of open, endoscopic and robotic urologic procedures by medical faculty members for teaching[7,8,9].

CHALLENGES

Principal amongst the challenges at the height of the pandemic was the disruption of the academic calendar and cancellation of clinical rotations[3].

Medical educators were then posed with the challenge of adapting medical education to be better suited without compromising the standard. And while the strategy of allowing students to complete the non-clinical part of their studies remotely was successful, there was a greater challenge with providing an alternative for their participation in clinical activities as there was reduced or no exposure to the Clinical Setting[10].

Furthermore, the onus was even more on final year medical students who were expected to possess a certain level of skill-based competence before starting their careers[10].

Students and educators alike had strong doubts as regards the effectiveness of the remote learning approach which was confirmed by non-compliance to the normal classroom etiquette, poor attendance, poor internet connection[9] and students' lack of comportment[6]. Similarly, challenges were also experienced as regards the amount of course content that the virtual lectures would cover and what content to include or exclude. This was further complicated by the complexity of the course contents, what teaching methods to be employed, lack of expertise with novel software applications, and time limitations[6].

Also, there was the burden of what methods to employ in assessing medical competence and an increased level of anxiety amongst students and teachers as a high level of uncertainty majorly contributed to depression in this period[2]

Advantages

Remote learning promoted the quality of teaching due to increased documentation. Plus, students were able to take control of their learning as access to learning resources was made available by faculty members for further review by the students[7]. In addition, remote learning has led to increased student exposure via elective courses on the COVID-19 pandemic, research and telemedicine[5].

Also, Open Book Examination has been better; it has reduced students' anxiety even in the place of current anxiety and stress associated with this period in time[1]

Recommendation

At the peak of the pandemic, when institutional policies mandated the cancellation of clinical activities for students, educators were pushed to make decisions that ensured continuation but minimal health risk. This has not come without its own challenges. However, the following can be learned:

1. The need for continuation of virtual teaching: there should be provision of digital platforms for electronic learning, mentoring and conferences when required in the course of medical training. In addition, remote learning should be integrated into the medical curriculum and formally accepted as an alternative even now that the impact of the pandemic has waned[7]. Also, educators can innovate by teaching and assessing students as they perform virtual patient assessment and participate in virtual teaching rounds and topic presentations[2].

2. Improvement of existing framework: existing infrastructures for virtual and physical consultation should be improved in all training centers to ensure the continuity of medical education in the face of disruption of medical education. Also, simulation laboratories and audiovisuals should be developed to enhance skill acquisition and deliver clinical skills remotely that would have otherwise been acquired by the students during clinical rotations[1]. Stakeholders should support the development or use of user-friendly software, increased student engagement[6]

3. Development of framework to combat anxiety and depression: there should be regular communication and social support targeted to improve students' wellbeing[2]. This can help to lessen the level of anxiety[4]. Large group virtual communication, student-faculty advisory system, peer support group system and positive individual habits e.g. exercising, rest etc should be encouraged to help to combat the negative effects of physical and social distancing [2]. Additionally, hospitals should provide adequate personal protective equipment for health workers. This will reduce the anxiety of residents and trainers while dealing with highly infectious diseases.

4. Priority should have been placed on aspects of medical training that require minimal or no clinical duties such as research and data analysis[2]. Alternatively, medical volunteering should be encouraged as it might cover for the clinical aspect[4]. However, activities that students volunteer for should not be beyond their clinical abilities and these activities should be done under close supervision.

CONCLUSION

The virtual learning method was more of a response to minimize the disruption of the medical academic program rather than an innovation that has come to stay, that will probably be revised and permanently adapted to the medical education to be better suited for similar challenges in future[5,6]. It is therefore important that stakeholders work towards incorporating and refining it to be better suited for prevailing situations in future.

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