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Title: Online Final Medical School Exam in a Low-Income Country During COVID-19 Pandemic

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Discussion Points:

1. Online final year medical school exams during COVID-19 pandemic
2. Problems associated with online assessment for medical students in low income countries
3. Challenges that Zimbabwean medical students are facing during the COVID-19 pandemic

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1 **THE EXPERIENCE.**

2
3 The COVID-19 pandemic has affected every sector of society. The usual delivery of medical education and
4 assessment of undergraduate medical students has had to temporarily change in the midst of this global crisis.
5 Online academic assessment of medical students has long been used and keeps developing.¹ However, when
6 I returned from my medical school in China to do my final year of clinical electives in my country, Zimbabwe, I
7 never imagined I would be writing my final medical school examination in my own home.

8
9 Traditionally, the medical school I attended holds their final graduation exam in two parts, both of which are
10 paper based tests that are invigilated. The first part being taken before a year of clinical elective attachments at
11 chosen hospitals approved by the school and the second part which is taken after the electives which
12 subsequently leads to the attainment of the Bachelor of Medicine and Bachelor of Surgery (MBBS) degree.

13
14 I had read news of final year medical students in other parts of the world being fast tracked and quickly finishing
15 the last part of their undergraduate medical education in order to increase the frontline workforce on the battle
16 against COVID-19.² My medical school took a similar course of action shortly after this, announcing my final
17 examination would be written online with time limits, as originally planned by the school. This came as a relief
18 to me because I had been worried about not graduating on time because of the uncertainties surrounding the
19 SARS-CoV-2 pandemic and the hassle of applying for a new visa to China in the event that the pandemic did
20 not die down and travel restrictions were not lifted (which ended up being the case).

21
22 Online education or assessment in a low-income country comes with numerous challenges including
23 unavailability of the internet in many homes, slow connectivity and electricity power cuts.³ Now I had to plan for
24 a 3 hour long online final medical school examination which would hopefully be uninterrupted.

25
26 All candidates were informed of the inclusion of subjective type questions in the examination, which was the
27 only difference from the norm, but a significant difference in my opinion as it affected my methods of preparation
28 for the exam.⁴

29
30 A few weeks passed and finally it was the day of the examination. Ironically, the electricity was unavailable and
31 I had to use a back-up generator during the exam. I was impressed with the platform used to conduct the
32 examination which had an auto-save function and this was reassuring because if adverse circumstances had
33 interrupted my examination, when I restarted, my answers would have been recorded. Thankfully, I had no
34 disturbances for the entire duration of the examination once the generator was running. At the end of my exam,
35 I was excited about what my experience could mean for the future of medical education and assessment, for
36 undergraduate medical students especially in low income countries, like Zimbabwe.

37
38 When I had attended the leading medical school in Zimbabwe during my clinical elective attachments, most
39 things were done manually, the use of pen and paper were commonplace and assessments were done
40 physically which has great advantages such as building the confidence of the physician by oral presentations.
41 A group of final year medical students at the top medical school in Zimbabwe were unable to complete their

1 degree program on time owing to a previous doctors' strike compounded by the effects of the COVID-19
2 pandemic.⁵ Perhaps owing to the style of teaching and assessment, these medical students have had to wait
3 many months before they can be formally assessed which has brought staffing implications for a healthcare
4 system that is already facing capacitation challenges related to a hyperinflation economic environment. In this
5 case, I wondered if the possibility of conducting online examinations was considered and if it was, would it have
6 worked for all the candidates considering the economic state of the country?⁶

7
8 How can online medical education and assessment be initiated and formalised by medical schools in low income
9 countries? From my experience, I observed that connectivity is key in the fast changing technological world we
10 live in today and medical schools or institutes may need to provide reliable internet connectivity to their students,
11 not only on campus but remotely as well.⁷ However, the reality is that face-to-face discussions and streaming
12 which simulate the usual learning environment are inaccessible to everyone. The online platform most students
13 can relate with is WhatsApp and remains a favoured option for case studies, discussions and handing in of
14 assignments. WhatsApp has been the mode of online learning adopted by university students in Zimbabwe as
15 it is a cheaper way of continuing studies and staying connected. In my opinion, online learning and assessment
16 in Zimbabwe and other low-income countries is likely to become more popular in the post-pandemic era as this
17 difficult time has served as an eye-opener to non-traditional methods of learning and examination.

18
19 The COVID-19 pandemic and its effects on the world have caused sheer distress but I think that adversity
20 breeds innovation. The challenges faced allow us to think of ways to improve ourselves and the world including
21 the day-to-day delivery of medical education and assessment, even in the face of a pandemic.⁸

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