



The Impact of COVID-19 Pandemic on Medical Education in a Sub-Saharan African Country (Kenya)

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Editorial

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Abbreviations: SARS-COV-2: Severe Acute Respiratory Syndrome Corona Virus 2; WHO: World Health Organization; SSA: Sub-Saharan African; COVID-19: Corona Virus Disease 2019; PHEIC: Public Health Emergency Of International Concern; MDGS: Millennium Development Goals; LMIC: Low and Middle Income Countries; HIV: Human Immunodeficiency Virus; UN: United Nations; SDGS: Sustainable Development Goals; AIDS: Autoimmune Deficiency Syndrome; ICT: Information Communication Technology.

Editorial

In 2019 the World was faced with a new infectious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-COV-2), the corona virus disease 2019 (COVID-19). The disease was first reported in China in December 2019 and due to its rapid spread, the disease was declared a Public Health Emergency of International Concern (PHEIC) by the World Health Organization (WHO) on 30 January 2020 and a pandemic on 11 March 2020 [1]. However, by March 2023, the disease was no longer considered as a PHEIC by WHO, but an ongoing COVID-19 disease [1]. The COVID-19 pandemic and its current status as an on-going disease will affect medical education, healthcare and the achievement of the United Nations health-related Millennium Development Goals (MDGs), especially in the low and middle income countries (LMIC).

The United Nations Millennium Development Goals (MGGs) of 2000 were 8 goals proposed by member states to achieve a better world by 2015. The aim was to combat poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women [2]. These goals have now

been superseded by the Sustainable Development Goals (SDGs) [3]. The Sustainable Development Goals are based on the successes of the Millennium Development Goals.

The health-related MDG are MDG 1 (eradication of extreme poverty and hunger), MDG 4 (reduction of child mortality), MDG 5 (improved maternal health), MDG 6 (combat HIV/AIDS, malaria tuberculosis and other diseases), MDG 7 (ensure environmental sustainability), MDG 8 (develop global partnerships for development) [2].

The United Nations (UN) Millennium Development Goals emphasize the importance of Information Communication Technology (ICT) in education and Health [4]. This has become more evident after the COVID 19 pandemic and the role ICT played in health care and medical education during the pandemic.

While the impact of COVID-19 disease in WHO Africa was less than that seen in the developed world, the need for preparedness was necessary and there was a large impact on medical health care givers and medical education. This was largely due to the fact that the level of preparedness to deal with the situation was hampered by the socioeconomic factors. Several reasons have been given as to why WHO Africa was not affected by COVID-19 to the same extent as the developed world. One of the reasons may be the relatively young age of the population in WHO Africa and the lower rates of international travel in those communities [5].

The first case of COVID 19 in Kenya was reported in March 2020 and this was soon followed by the decision by the Government of Kenya to close all schools and institutions of higher learning [6]. The Institutions of higher learning were to remain closed until October 2020 while the schools

reopened in January 2021. The reopening of the higher learning institutions was in a phased pattern beginning with final year students. The Government also implemented all the other public health measures necessary to reduce infectivity. During the period of closure of the institutions, most of them introduced and implemented ICT learning as a way of teaching the students [6].

As the neurosurgeon in charge of the residency program at the University of Nairobi, Kenyatta National Hospital Campus, I led the team that oversaw the implementation of this plan at the undergraduate and postgraduate level. Most elective surgeries were rebooked and priority was given to the management of emergency cases. Arrangements were made for all theatre staff to wear the appropriate protective gear while on duty. Fortunately we never lost any of the staff in the neurosurgery unit during that period although we lost a number of staff within the hospital. The final year medical students were able to sit for their exit examination after they were recalled. This was in the form of an online administered written assessment and a face to face clinical assessment. It was during this face to face clinical assessment that I contracted COVID-19. I was managed at home. Unfortunately, I passed the infection to my wife. She had to be hospitalized in the Intensive Care Unit. Her lung CT scans had ground glass appearance. The whole situation was very scary. She pulled through due to the excellent care she received. One of the doctors who managed her was to tell us later how scared they were during the course of her management, having lost two faculty professors who had a similar stage of COVID-19! One of our residents contracted COVID-19 and was also successfully managed at home.

Adjustments will have to be made in the teaching of medical students, residents and in patient management, the so-called “new normal” [7]. This will be one of the great adjustments of medical education in the 21st Century. As we advance towards defining the practice of medicine in the 21st century Covid-19 era, we will need to embrace Systems Engineering and Information/Communication Technology to assist us overcome the challenges we face in

Medical Education and Health Care Delivery [8]. Advances in Systems Engineering and Information and Communications Technology have broken barriers in technology transfer and healthcare delivery that has greatly benefited the disadvantaged countries of Africa albeit at an immense financial cost.

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