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Disruption of Medical Education in Times of Pandemic: Reflections from the Ground

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Abstract
The COVID-19 pandemic has caused massive disruptions to conventional teaching and learning activities in medical schools worldwide. In this short essay, we discuss our experiences with various sudden changes and obstacles facing academic activities at the Universiti Teknologi MARA (UiTM) Faculty of Medicine in Selangor, Malaysia. We elaborate on the predicaments faced by students, lecturers and university administration during an undergraduate Public Health rotation in which students have to organize health promotion programs and conduct research. Subsequently, we argue that this global health crisis – and its unique impact on students' academic exercises – calls for an urgent change to student evaluation methods and approach. Taking into account the different restrictions imposed on students and lecturers alike, the old criteria for assessing students' performance should be reviewed, in order to do justice and ensure objectivity.

Keywords: COVID-19; global pandemic; disruption of academic activities; medical education; public health education

Worldwide, the impact of COVID-19 pandemic on educational institutions have been severe and are still evolving (Gupta & Goplani, 2020; Jacob, Abigeal, & Lydia, 2020; Sahu, 2020). While some countries have achieved high levels of vaccination among their populations and thus begun to gradually return to some semblance of normalcy, circumstances can be very different in other regions, especially low- and middle-income countries. Malaysia for instance – among other Southeast Asian countries like Thailand, Indonesia and The Philippines – has experienced a sudden and rapid increase in COVID-19 cases and deaths from May until August 2021 (CNA, 2021; Ratcliffe, 2021). This was despite the country's enthusiastic vaccination roll-out that began in the period between March – May 2021 (Sipalan, 2021).

As a result of the rise in COVID-19 transmissions and mortality, drastic measures were imposed including varying degrees of lockdowns and stay-at-home orders. These movement restrictions have caused intermittent closures of schools and universities in Malaysia, accompanied by massive adoption of emergency remote teaching, most of which occurred without adequate preparation. For some private institutions, such a volatile situation has led to permanent closure while for others, it caused a significant number of drop-outs (NST, 2021; Yeap, Suhaimi, & Nasir, 2021).

Disruption of Medical Education

In the context of academia, and especially medical schools, the effects of COVID-19 crisis penetrate almost all aspects of administration and teaching and learning activities (Pokhrel & Chhetri, 2021). From the administrators' perspectives, unexpected changes occur in terms of the need to rapidly adapt to, and address COVID-19 outbreaks among their staff, students and healthcare workers. In addition, medical schools that host clinical or treatment facilities have to make a tough decision on whether or not to accept COVID-19 patients as that would necessitate numerous (and often costly) adjustments related to guidelines, manpower, training and equipment. Due to the rapidly changing situation on the ground, the administration struggles to make the right and timely decisions; instructions change on a regular basis and can sometimes be confusing and contradicting.

From the perspectives of teaching and learning, disruptions of academic calendars, sudden shift of learning mode from physical to

virtual, and restrictions of student mobility have all imposed massive adaptations – which can amount to a complete 'shake-up' of existing structures – within a short time frame. Examples include adoption of emergency remote teaching (ERT) without adequate preparation, repeated changes in class schedules, cancellations of classes and exams, contradicting instructions from the lecturers or administration, and the need for students to cope academically in a new and unfamiliar learning environment.

The outcomes of these sudden changes and restructuring can be devastating on students' mental and psychological health as documented in recent empirical studies around the globe (Browning et al., 2021; Cao et al., 2020; Ghazawy et al., 2021). Studies showed that prolonged or intermittent closures of university campuses and the shift to ERT contributed to a rise in anxiety and depression levels among students (Sundarasen et al., 2020). This is further compounded by the 'digital divide' phenomenon; students from lower socio-economically backgrounds are put at a disadvantage when they are forced to study remotely (from home) without sufficient internet coverage and connectivity(Aucejo, French, Araya, & Zafar, 2020; Du Preez & Le Grange, 2020) . In addition, this group is more likely to have parents or family members affected by job losses (or furlough) due to the economic slowdown, an added reason for psychological distress.

First key challenge: Health promotion and research activities in times of movement restrictions

In a recent undergraduate public health rotation in our faculty, students were given the task to run a health promotion program for a specific target population in a nearby locality. Traditionally, these health promotion programs have always been conducted on-site, with close communication and engagement of local community leaders. The program objectives and content are also derived from findings of community profiling activities that students conduct prior to the event. At the same time, they are exposed to research by undertaking small studies and going through the basic steps of planning study designs, selecting questionnaires, collecting and analysing data, and disseminating the study findings at the end of the rotation. Prior to COVID-19, these studies were mostly conducted on the ground, with face-to-face data collection and regular meetings with community leaders and lecturers.

Due to the pandemic – along with the exponential increase in COVID-19 new cases within a few months in Kuala Lumpur and the state of Selangor – the public health rotation in our faculty was severely affected. First, students could no longer conduct health promotion activities (eg: campaign, games, etc) physically but had to resort almost entirely to virtual platforms. Second, community profiling posed a great challenge as the common gate-keepers, the community leaders, were not all familiar with online meetings. Even when they were, most of them were occupied with handling COVID-related issues within their localities which resulted in their inability to engage with academic activities with students. Needless to say, such academic exercises were seen as secondary and of lower priority, in times of a more pressing issue. This created a barrier for the students to access the supposed target population, forcing them to rely on informal sources and networks.

Third, movement restriction orders did not allow students living beyond the state boundaries to return to campus, rendering group discussions and team-work more difficult and reliant on virtual platforms. While we are aware of the advantages of ICT and online meetings, we found that the benefits were not equally reaped by all students, given the vast differences in their circumstances (geographical location, access to internet, family status and familiarity with digital platforms). On top of that, using virtual platforms and SNS (such as Twitter, Instagram and Tik Tok) for health promotion activities could potentially create inequities in beneficiaries. Older adults, children and migrant populations are less likely to receive the health promotion messages and educational materials through these channels due to issues like restricted access and lower digital literacy (Ang, Lim, & Malhotra, 2021; Nouri et al., 2019).

For research activities, challenges faced by students include restricted access to respondents given the difficulty to communicate with gate-keepers, as mentioned before. Despite the advantages of online data collection with regards to time, costs and efficiency, our students faced a number of difficulties. Since they could not obtain the complete list of potential respondents from the local council, a random sampling approach was not possible; convenience sampling was thus adopted using online (validated) questionnaires whose links were circulated through WhatsApp and SNS. Selection bias was likely, as individuals less familiar with smartphones and SNS, would be somewhat systematically excluded. Understandably, digital

literacy tends to be lower among the older age groups and those from the lower income background (Ang et al., 2021; Mulyaningsih, Wahyunengseh, & Hastjarjo, 2021). Besides, online data collection that is not accompanied by constant and close communication and guidance by researchers can easily lead to lower motivation and interest among respondents which can in turn affect the accuracy and quality of data.

Second key challenge: Should new norms call for new evaluation criteria?

Beyond the discussions on how the pandemic has impacted our public health rotation, of equal importance is to highlight the issue of student evaluation and assessment. While different fields have been affected by the COVID-19 crisis, the extent to which these fields are altered or forced to embrace changes, varies. Some may be subjected to mere inconvenience (with temporary but reversible problems) while some others have their core elements impacted, with a subsequent need for major reforms. One of them is medical education, in which distant learning strikes at two of its crucial components of teaching and learning; delivery of lessons and student assessment.

Despite the widespread acknowledgment of the disruptions that have limited students' ability to carry out their academic programs and exercises smoothly, the evaluation method and approach has not undergone meaningful changes to reflect the actual situations on the ground. Often, the old assessment criteria and standards are imposed on students without adequate consideration of the new changes (and disruptions) caused by the pandemic. It is observed that academics tend to verbally express their sympathy toward students' struggles and desire to assess them fairly, but what is needed is a thorough, objective and explicit amendment to the assessment guidelines, checklists and forms so that this 'desire for fairness' is standardized and translated into concrete action.

The old student evaluation method focuses more on a set of conventional criteria such as students' eloquence during presentation, their clarity and ability to answer questions, the quality of their presentation slides, adequacy of their work substance and their attitude in general. However, these may not be enough or even relevant in a period of 'chaos and uncertainties' where students are forced to make huge adjustments to their academic life while grappling with 'less time, more work' and the expectations to 'think

out of the box'. Evaluation of their performance in such a case needs to include elements of creativity and innovation in making use of virtual platforms, resilience in adapting quickly to changing and uncertain schedules, responsiveness and ability to work under stress, demonstration of adaptive and problem-solving skills, and awareness of how COVID-19 crisis is affecting the way we practice and view health education. In addition, assessment needs to take into account the constraints faced by students in terms of their movement, access to the internet, and the different layers of vulnerabilities to which they might be exposed.

A form of discrepancy that can stand in the way of objective/fair assessment is the gap in perception and expectations between assessors (lecturers) and students. While students may think that their struggles and the restriction in time and resources they face are sufficiently understood by other parties, a similar sentiment may not be shared by lecturers. This did not mean that lecturers are unaware of the situation on the ground, but they may perceive these challenges as less serious or not severe, thereby underestimating their impact on students' performance. From our experiences, some students reported feeling misunderstood and that their complaints were not adequately addressed or taken seriously. This caused them anxiety about their grades and assessment outcomes. Another source of frustration was the gap in digital literacy between students and lecturers. Students observed that many lecturers were not familiar with some of the online platforms they used for the health promotion campaigns and activities. This made them worried about how assessors would judge their work, and whether students' creativity would be fully appreciated.

There are several reasons why a change in student evaluation approach is urgently needed in this period. Of utmost importance is the change of realities on the ground which have affected the ways things are done and perceived by students and lecturers alike. This change in reality needs to be properly reflected in how students are benchmarked. Aligning students' lived experiences with evaluation of their academic performance is tantamount to doing justice and achieving higher objectivity, which should be the core values of academia. Other than that, incorporation of new elements such as creativity and innovation, resilience, and ability to work under stress and uncertainties is crucial to gauge students' performance more accurately – not merely from the academic but also real-life

perspectives. In a post-COVID era, these are the features and characteristics that will determine medical students' success as future health practitioners (Chesak, Perlman, Gill, & Bhagra, 2020).

In sum, our experiences of running academic sessions in general, and conducting health promotion programs in specific, have taught us valuable lessons that could benefit other medical educators and learning institutions. Other than the challenges associated with the disruptions of academic exercises by COVID-19 countermeasures, we learnt that it is extremely important to bring students' lived experiences and everyday realities into aspects of evaluation/assessment. This approach should be viewed as a way of doing justice and empowering medical students with the skills needed in a world of 'new norms'.

CONFLICT OF INTEREST

All authors declared no conflict of interest

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