COMMENTARY

Student Selection Process for Undergraduate Medical Programme Amid the COVID-19 Pandemic: Lessons Learned and Future Directions for Universiti Putra Malaysia

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INTRODUCTION

Medical schools worldwide employ a variety of strategies in their student selection process due to the large number of academically qualified applicants and the limited places to offer. The selection process is crucial because the accepted candidates shall be able to complete the medical training and eventually will become safe and competent doctors. Multiple mini-interview (MMI) has increasingly been adopted as the preferred method of medical student selection due to its acceptability, feasibility, reliability and validity (1). In MMI, candidates rotate around a series of stations designed to assess cognitive and non-cognitive attributes in a finite time allotment (2). The Faculty of Medicine and Health Sciences, Universiti Putra Malaysia (UPM) has been conducting MMI since 2017 for selecting undergraduate Doctor of Medicine (MD) students. However, the coronavirus disease 2019 (COVID-19) pandemic has caused many challenges and sudden changes medical schools worldwide, including the admission process. In UPM particularly, the usual face-to-face in-person MMI became infeasible due to the social distancing policies resulting from the pandemic.

After the global lockdown for almost a year, the Malaysian government had imposed the National Recovery Plan (NRP) on 12 May 2021 to control the pandemic while reopening the society and the economy towards the new normal (3). The NRP consists of a four-phase exit strategy indicated by the vaccination rate in the population, the average number of daily new cases and the utilisation of intensive care unit beds in each state of Malaysia. For the academic session 2021/2022 intake, the medical student selection exercise in UPM was scheduled to take place in June 2021. Unfortunately, Selangor and Kuala Lumpur remained under Phase 1 of the NRP until September 2021 with the highest restrictions including the prohibition of interstate and inter-district travel. The faculty have then resorted to an alternative method of student selection to substitute for the usual MMI process. This article highlights our experience in conducting the selection process during the crisis and lessons learned which become the key to the direction of student selection process for the subsequent years.

CONTEXT

A list of applicants from the Central University Admission Unit online portal (UPUOnline) was obtained from the UPM Division of Admission. From the list, 400 candidates were shortlisted based on the programme's

admission policies and criteria. A committee comprising the Deputy Dean of Academic (Medicine), Senior Assistant Registrar, medical education unit and several academicians was formed to brainstorm, design and plan the student selection exercise. Due to several resources' constraints, the process was divided into two phases. The first phase was the screening phase to select only 200 candidates who were qualified for the one-to-one interview. All candidates were required to complete two tasks, namely writing an essay and preparing a video recording to evaluate their critical thinking, ethics, language and communication skills. Next, the top 200 candidates from the screening phase were invited to attend an online interview to fill in the 100 seats available in the programme.

The following attributes were assessed during the interview; language (Malay and English), communication skills, critical thinking, ethics, resilience and empathy. These attributes were similar to the usual MMI conducted before the pandemic. The eligible candidates were contacted through email and telephone, and all information regarding the student selection exercise were made accessible from the faculty's website. The workflow of the whole selection process is presented in Figure 1.
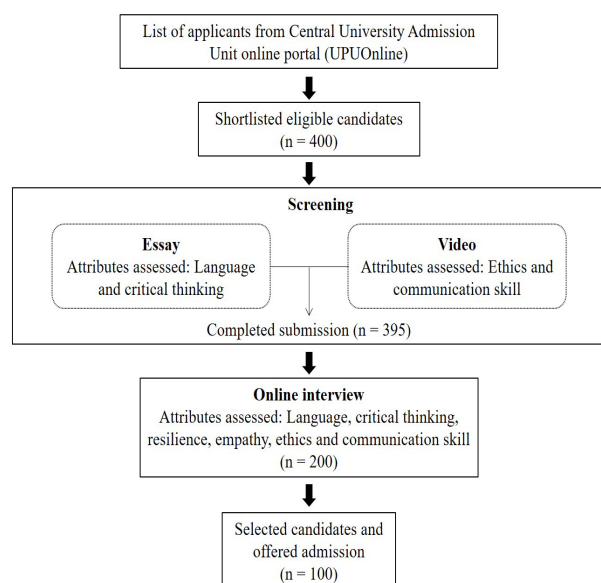

Figure 1: The workflow for the Doctor of Medicine programme student selection process for the academic session 2021/2022

SCREENING PHASE

(a) Video recording

The candidates were given one case scenario regarding ethical issues. They were given one week to prepare a 3.5-minute video discussing the topic and submit it to the provided Google Forms link. They were allowed to present either in Malay or English language. Twenty evaluators were involved in the evaluation process based on the predetermined rubric. Each video was evaluated on its content, presentation and delivery, as well as creativity.

(b) Essay

The candidates were given one case scenario regarding COVID-19 vaccination and 24 hours to write an 800-word essay. They were required to submit it to the provided Google Forms link. They were allowed to write either in Malay or English language. There were 19 evaluators who were involved in the marking process based on the predetermined rubric. Each essay was checked for plagiarism using Turnitin software and evaluated on its content, organisation and comprehension, as well as grammar.

All evaluators involved in the screening phase were voluntary and a combination of preclinical and clinical lecturers. There were 395 candidates who completed the submission and their total scores were calculated and ranked. The top 200 candidates were then invited to attend the online interview.

ONLINE INTERVIEW

The one-to-one online interview was allotted 20 minutes with structured questions consisting of an introduction and background of the candidate and a discussion of a case scenario related to an ethical issue followed by a video clip that provoked empathy. One interviewer was assigned with five random candidates. All interviewers scored the candidates based on the pre-determined rubrics for each of the attributes using the Google Forms.

The interview was conducted centrally in the faculty to ease its organisation. It was split into two different sessions for over two days with a total of 40 interviewers. The candidates were equally distributed between the two days; thus, the case scenario and video clip were prepared for two sets. The interview was conducted using the Zoom platform in which multiple breakout rooms were created for the interviewers. There were 6 administrative staff in charge as the hosts of the video meeting with their roles to select and split the candidates into the breakout rooms. The interview took about three hours to complete each day.

LESSONS LEARNED

Perhaps the most obvious advantage of the present student selection exercise is the optimisation of technology and human resources. The faculty went paperless during the exercise with the help of softcopy documents, Google Forms for candidate's task submission and evaluation process by the panel, Zoom platform for the briefing and interview, as well as email and WhatsApp to communicate with the candidates, panels and among the administrators. The task of entering candidates' scores was automated from Google Forms into Microsoft

Excel, which was a lot easier, faster and more accurate.

The present exercise also offers some practical advantages to the faculty members. Less number of interviewers were required compared to that of the prior MMI. Several evaluators involved in the essay or video evaluation process were also able to act as online interviewers. Previously, the MMI alone usually took the whole two days to complete for 300 candidates. On the contrary, we have managed to complete the overall selection process with a higher number of candidates, yet a smaller number of interviewers and in a shorter duration.

In addition, the online selection exercise appeared cost-effective for the candidates since they were able to save on travel, lodging and meal expenses incurred while attending the usual face-to-face interview. The process becomes more accessible for candidates without adequate financial resources to spend on travel.

Before the pandemic, the candidates may need to travel to different medical schools to attend the interviews. Perhaps, some of them faced scheduling conflicts with other medical schools, which could be a reason for declining interview offers. With the online selection process and elimination of travel time, these conflicts could be resolved. However, the candidates missed the opportunity to visit and tour the faculty's educational spaces along with meeting and interacting with other fellow candidates and faculty members. Hence, they might have a lack of impression and sense of familiarity to decide whether or not to accept the admission offer.

The online selection process, however, has some drawbacks. Some candidates experienced technical glitches and unstable internet connections during the interview, which disrupted the session. Nevertheless, there were technical experts to assist with the interview since we have already anticipated the issues. Additional time was given to those who faced the problems, hence causing a delay to the subsequent candidates.

The online interview also limited the physical interaction between the candidate and the interviewer. It was challenging to discern non-verbal cues and evaluate their behaviour in an online setting, which might affect the interviewers' scoring. Studies have shown that virtual interview restricts the interviewer's ability to observe non-verbal behaviour and influences their ratings (4).

We have also gathered feedback from the candidates and faculty members involved during the selection process. Generally, the candidates acknowledged that the incorporation of different tasks, namely recording a video, writing an essay and attending the online interview, was fair and interesting as they were able to demonstrate various capabilities. However, the candidates suggested a longer duration for the video recording and for them to prepare the essay. They also mentioned that 20 minutes for the interview were inadequate for them to express their opinions.

Meanwhile, the faculty members who included the essay and video evaluators, interviewers and meeting hosts commented that the instruction and rubrics were clear apart from the smooth organisation of the whole exercise. However, some interviewers were more comfortable and preferred assessing only one particular attribute in each candidate similar to the prior MMI exercise. Even though they acknowledged that the online interview was practical during the pandemic, they still thought that the face-to-face interview or MMI is better in terms of opportunities for physical interaction and technical convenience.

FUTURE DIRECTIONS

We acknowledge that conducting the present selection exercise might have varied challenges and might not be the same as face-to-face MMI. However, we believe that the online format is feasible and does not hinder the faculty from selecting qualified students for the programme. We recognised that the transition to an online format is a necessary and practical method, which will be adapted for future student selection exercises.

Having different layers of screening would allow us to optimise our resources and screen more eligible candidates for the programme. However, we think that the video recording task may unfairly favour candidates with proper editing software and skills. Therefore, the task may be reconsidered in the future. Despite some challenges encountered during the exercise, the online format offers several practical advantages including time, cost and resource efficiency. Effective time management, efficient organisation, adequate infrastructure and trained faculty members are the critical keys to success.

ACKNOWLEDGEMENTS

CONCLUSION

The pandemic has been the stimulus for change in the faculty. A drastic change is not always easy. However, with the availability of guides from the literature, guidelines from the Ministry of Health and Malaysian Medical Council, as well as good support and careful

planning from the faculty management, the transition had been smooth for the lecturers and the students. Collecting feedback from all stakeholders involved on the conversion is mandatory to ensure that the current conversion continue to remain valid even after the pandemic.

REFERENCES

1. Pau A, Jeevaratnam K, Chen YS, Fall AA, Khoo C, Nadarajah VD. The multiple mini-interview (MMI) for student selection in health professions training–a systematic review. Medical Teacher. 2013;35(12):1027-41.

2. Eva KW, Reiter HI, Rosenfeld J, Norman GR. The ability of the multiple mini-interview to predict preclerkship performance in medical school. Academic Medicine. 2004 Oct 1;79(10):S40-2.

3. National Recovery Council. National Recovery Plan [Internet]. 2021. [updated 2021 July 26; cited 2021 March 29]. Available from https://pelanpemulihannegara.gov.my/faq-en.html.

4. Blacksmith N, Willford JC, Behrend TS. Technology in the employment interview: A meta-analysis and future research agenda. Personnel Assessment and Decisions. 2016;2(1):2.