

The Potential Impact of COVID-19 on the Medical School Application

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ABSTRACT: The coronavirus disease 2019 (COVID-19) pandemic has had a significant impact on the medical community. It is suspected that the pandemic will impact the medical school application process due to effects on standardized testing, performance measures, financial burdens, and interview strategies. It is important to consider these issues early to optimize success of future strategies and mitigate the impact of COVID-19 on the application cycle.

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Background

On January 20, 2020, the United States confirmed its first case of the novel coronavirus disease 2019 (COVID-19).¹ Less than 2 months later, on March 11, the World Health Organization declared the outbreak a pandemic.¹ In response, the Centers for Disease Control created a set of guidelines which would attempt to slow the spread of the virus. These included more frequent handwashing, maintaining 6 ft of distance between individuals, and wearing face covers when in public spaces.² Around the world, rapid changes ensued. Businesses closed their doors, universities eliminated in-person classes, and major sporting events were cancelled. As the pandemic continues, the ramifications become more extensive. In the United States, with Medical College Admission Test (MCAT) examination dates being cancelled, universities moving to online classes with a pass/fail grading system, and the potential for interviews to be affected, it is likely that future medical school applicants will experience the effects of these ramifications due to COVID-19 in the upcoming cycle.

Ramifications of COVID-19 on MCAT Testing

The MCAT has long been a staple of the medical school application process. While aptitude tests such as the MCAT have conflicting evidence regarding their predictive validity,³ it does not change their importance in the current system. Unfortunately, all MCAT examination dates were cancelled globally for the month of April, with planned resumption on May 29.⁴ Testing in late April is typically the last time for an applicant to take the MCAT and receive their score for timely submission of the application in late May.⁴ With social distancing recommendations extended nationally,¹ it seems plausible that additional examination dates may be cancelled or delayed. To compensate for these cancelled dates, the American Association of Medical Colleges (AAMC) has added 3 new test dates and will temporarily offer 3 slightly shorter examinations with staggered start times for upcoming examination dates.⁴ While typically the test

starts at 8:00 a.m., the new start times have changed to 6:30 a.m., 12:15 p.m., and 6:00 p.m.⁴ Adding in additional testing slots, however, does not change the fact that a number of applicants would not have their MCAT score before the application opened in late May. One potential solution to this problem would be to allow applicants to submit their applications without an MCAT score with the stipulation that they will submit it later, after they are able to take the test. This will have cascading effects which could delay when admission councils will have complete applications from their applicants. Some applicants may not be able to submit their score until mid-October which is well into when medical schools would typically begin offering interviews. It is unclear how this delay in MCAT scores will ultimately affect medical school selection of applicants and to what extent they will experience subsequent delays in their own application processes.

Current and Future Performance Measures Used in Application Review

While previous academic performance does not provide the complete narrative of an applicant, it does help predict a student's academic performance in medical school.³ To abide by social distancing recommendations, universities across the nation cancelled in-person classes and switched to an online class system. On top of this, many universities offered a pass or fail system to accommodate students' worries about academic performance during this stressful time. If a class is taken pass/fail, the grades cannot be calculated into a student's cumulative grade point average (GPA). Therefore, this means that a traditional applicant's calculated GPA could be missing approximately 16% (1 of 6 semesters) of the grades previously accounted for in past application cycles. Even with undergraduate institutions offering a pass/fail option to students, many medical schools have made statements that while they will accept the pass/fail grading system, they recommend against using it.⁵ However, if a student chooses to use the traditional



grading scale, it is not clear how this most recent semester will be weighed against others in light of the high stress and associated confusion created by the pandemic. It is difficult to predict to what extent this will affect the selection process, but medical school admission councils may consider finding alternative types of information as additive indicators of future performance.

A previously published systematic review has demonstrated that prior academic performance has a high predictive validity regarding future performance; however, other factors also contribute to one's success in medical school.³ Given recent changes and the potential reduction in reliability of academic indicators, these other nonacademic indicators should receive more attention. Although measurements of nonacademic and academic factors are not equivalent, pivoting to a greater focus on nonacademic measures is in line with recent approaches to view applications more holistically outside of academic performance alone. One potential reliable and validated approach would be to employ situational judgement tests (SJTs) which can provide insight into nonacademic characteristics.³ Situational judgement tests provide hypothetical ethical situations to which the test taker must respond. The test takers are then assessed and given a score based on their response to the situations. One example of an SJT, of several, is the Computer-Based Assessment for Sampling Personal Characteristics (Altus Assessments, Toronto, ON). While this test has recently gained popularity among medical schools, not all require the test, and this is not the only type of SJT available.⁶ The test is done online, is monitored via a video camera to ensure integrity, and scored remotely by trained human beings.⁶ This allows the entire process to be completed while observing the current social distancing recommendations, making it a feasible option in the midst of the pandemic. Incorporating SJTs as a selection factor supplementary to other currently used nonacademic factors, such as interviews, could help medical school admission councils use a more holistic approach by placing greater weight on additional nonacademic characteristics. This could be especially beneficial when changes due to COVID-19 could render academic performance – a typically reliable and widely used selection factor – less reliable.

Application Cost Considerations as a Result of COVID-19

The costs associated with the medical school application process are not insignificant. In 2019, 36.7% of those entering medical school spent more than US\$2000 on secondary applications.⁷ This does not include the costs of primary applications which can also add up quickly, depending on the number of schools that an applicant applies to. Fortunately, the AAMC already has a program in place to help those who would otherwise be limited in their ability to apply to medical school due to financial struggles.⁸ The AAMC Fee Assistance Program is designed to help applicants afford the costs associated with the

MCAT examination and application fees.⁸ To be eligible for the Fee Assistance Program in 2020, the total family income for the year of 2019 needs to be at least 300% lower than the national average.⁸ However, unemployment has spiked due to COVID-19. In April 2020, the number of people in the United States who were unemployed rose from 7.2 to 23.1 million.⁹ Given that these changes are occurring in 2020, they will not be reflected in the 2019 statistics. People who did not meet the requirements in 2019 may now be facing insurmountable financial struggles due to the COVID-19-associated economic downturn. Using financial data from prior years may not be appropriate for this application cycle because they do not reflect the evolving impact of the COVID-19 pandemic.

One solution to this issue could be to expand the eligibility of the current AAMC Fee Assistance Program to include those impacted by COVID-19. Expanding eligibility could help to maintain the applicant pool and reduce the effect of active financial limitations that were not previously present. Another solution could be for individual medical schools to waive their secondary application fees for a wider number of applicants. This could be used – even after the COVID-19 pandemic – as a method to increase opportunities for a diverse pool of applicants by reducing the financial barriers associated with the application process.

Interviewing While Maintaining Social Distancing

One potential long-term impact of the COVID-19 pandemic is the possibility that social distancing recommendations will persist into the interview season. One solution to this problem would be to move interviews into a virtual setting. There are multiple types of interview formats. One popular type is the multiple mini interview (MMI) format which has been found to be more reliable and valid than traditional interviews.³ Interestingly, this format has already been tested in a virtual setting. A study at the University of Sydney had their international applicants use a virtual platform to complete the MMI, while the local applicants continued to use a traditional in-person format.¹⁰ They found that there were no significant differences between the scores of the 2 groups, indicating that the online version of the MMI is comparable to the in-person MMI.¹⁰ This evidence supports that schools should consider this mode of interviewing. Around the world, large technology companies have already moved their interview process online in response to COVID-19¹¹ – a process that could potentially be replicated easily in medical schools.

Online Interviewing: Cost Considerations

There are also some non-COVID-19-related benefits that are worth noting in relation to transitioning medical school interviews to a virtual setting. This type of transition would allow applicants to save money by eliminating the travel expenses associated with the interviews. In 2019, 45% of those entering medical school spent more than US\$1000 on interview-related

activities.⁷ These costs, in the current economic environment, could become prohibitive for some applicants. Moving interviews online would also help to reduce this cost by eliminating travel and hotel expenses. Again, in line with our argument above, these changes could help to reduce financial barriers of the upcoming and future application cycle. Assuming applicants have access to appropriate technology resources, these changes to the interview format could make some institutions more accessible, even after the COVID-19 pandemic. In fact, some have estimated that 98% of college graduates in the United States and 95% of those who have completed some level of college education are internet users.¹² While a majority of applicants may have internet access and could benefit from such changes, schools should also be cognizant of applicants from groups that have differential access to technology. These include those who live in rural locations, are minorities, or come from low-income households.¹² Schools may need to consider additional assistance for these applicants on a case-by-case basis. The outcomes associated with such measures should clearly be the foci of future investigations.

Conclusions

Amid the confusion brought on by the COVID-19 pandemic, one thing remains clear: the ramifications will likely impact the medical school application process in the United States. Delays and changes are expected throughout all aspects of the process. These include changes to the MCAT, the application itself, and the actual interview process. However, the negative consequences that COVID-19 will have on this can present opportunities for schools to innovate. These opportunities include consideration of new selection measures to assess performance and potential reductions in financial barriers. The changes to the application process, with appropriate consideration, may have the potential to actually increase opportunities for applicants. Future studies should investigate further to evaluate the ramifications of COVID-19 and its impact in the United States on selection criteria, financial burdens for students, and diversity pools. Although this article highlights the potential effects in the

United States, future studies should also consider these impacts on medical education within the context of the larger international community.

Author Contributions

All authors contributed substantially to all aspects of this article and participated in drafting of the article and critical revisions. They have approved the final version of this article and have participated sufficiently to take public responsibility for appropriate portions of the content.

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