Canadian Medical Education Journal
Revue canadienne de l'éducation médicale

Going virtual advances justice in expected and unexpected ways
Les manières attendues et inattendues dont le passage au virtuel nous rapproche de la justice

Eleftherios Soleas, Nicole Relke, Rosephine Del Fernandes, Heather Braund, Boris Zevin and Janet Lui

Cite this document

Going virtual advances justice in expected and unexpected ways
Les manières attendues et inattendues dont le passage au virtuel nous rapproche de la justice

Eleftherios Soleas,[1] Nicole Relke,[1] Rosephine Del Fernandes,[1] Heather Braund,[1] Boris Zevin,[1] Janet Lui[1]

[1]Queen's University, Faculty of Health Sciences, Queen's University, Ontario, Canada

Correspondence to: Eleftherios Soleas, email: eks3@queensu.ca

It is more important than ever to acknowledge potential implicit bias and to examine regular occurrences for how they contribute to the infiltration of bias into educational processes and decision-making.[1–3] We are at a precipitous moment in medical education, where we can decide to reduce one continuous trickle of bias into the medical profession—interviews.

The COVID-19 pandemic necessitated the rapid and mostly unplanned switch from in-person to virtual residency interviews. This created opportunities to better align the Canadian Resident Matching Service (CaRMS) process with the values of equity, diversity, and inclusion (EDI). This study aims to explore the potential for virtual interviews to level the playing field for CaRMS interview applicants in terms of mitigating potential infiltrations of bias, such as pre-conceptions of fit, socio-economic status differences between applicants, and applicants with competing priorities including family responsibilities.

This commentary draws on data from two separate national studies and equity and bias literature:

1. A cross-sectional survey of CaRMS R1 applicants (n=127) from 14/17 Canadian medical schools and interviewers (n=400) from all entry-level Canadian residency (R1) programs who participated in the 2021 match.

2. A cross-sectional survey of 62 PGY-4 residents, 59 program directors, and 113 interviewers for medical sub-specialty programs who responded to the survey about the 2020 match with representation from almost all Canadian medical faculties and medical subspecialties.[4]

Open-items were thematically analyzed, while closed-ended items were descriptively and inferentially analyzed and organized into EDI themes. Closed-ended items were data cleaned, descriptively and statistically analyzed and then nested with qualitative findings (See Relke et al 2022,[4] and Fernandes et al, in review).

Lessons Learned

The findings of our two national surveys point to virtual interviews being seen by applicants as more equitable by leveling the playing field financially, addressing the infiltration of bias and diversifying the cast of interviewers.

Reason 1: Financial considerations for equity

Respondents explained that the virtual format for the residency interviews allows applicants to apply and interview at more schools. With in-person interviews, applicants with financial means are more likely to be able to travel to many locations and thus have an inherent and non-merit-based advantage in locations where interest and fit are considered criteria. A person who was able to be present in-person would gain this non-merit-based advantage.

Reason 2: Addresses infiltration of bias

Bias is not an exception, but rather it is a function of the format of interviews.[5] This is especially true in medicine

where implicit biases result in students not matching to programs and subspecialties when their credentials and performance would otherwise merit it.[7]

As a function of the interview having to be adapted to the virtual setting, questions about 'fit' and 'interest' were waylaid according to resident and interviewer respondents. These questions are problematic and introduce strong potential for implicit and explicit bias into the selection process as there is little true chance to make an accurate determination of 'fit' within a program from an interaction as short as any interview.[9]

One interviewer articulated the perspective that "having in person interviews is better because the trainee has to commit to our program to some degree to make the effort of travelling here." This view and others like it privilege the applicants who can travel widely, in order to gain an advantage that has nothing to do with their credentials, experience, or character. In light of these responses, the potential for a strategy of intentional inconvenience as measuring interest and fit as drivers of the selection process is another reason why virtual interviews are superior, as they efficiently prevent this kind of presenteeism infiltrating the process. In our view and corroborated by recent scholastics,[1,8,10] it is highly unlikely that someone can, with any accuracy, assess the interest and 'fit' of a candidate via one interview.

Other study respondents explained that if in-person and virtual options co-existed that virtually participating applicants might be considered "not really interested" or "just backing up with this program", "while those that show up for interviews may be unfairly advantaged by virtue of in person assessment of cultural fit". In the view of resident respondents and a substantial number of interviewers, that determination cannot be fairly made during in-person interviews. Interviewers also reported that evaluation of performance on the virtual interviews was less prone to bias as greater number of evaluations were done independently without commentary from other interviewers. Indeed, as reported by interviewer respondents "Each interviewer was more independent in forming their opinion of the candidate. Less influence from Champions for some candidates" while another explained that they "Suspect it allowed for greater independence in marking between examiners in the same "room."" Thus, the virtual interviews according to resident and interviewer respondents were head and shoulders better than in person interviews on this incidental advance of justice alone.

Reason 3: Diversifying and Expanding the Cast of Interviewers

As a function of the virtual interviews being able to be completed from anywhere, a larger cast of interviewers were available, and according to interviewer respondents, participated in interviews. Indeed, according to respondents from both national samples, virtual interviews enhanced accessibility of the virtual interviews to and had better representation from rural interviewers. Interviewers with diverse backgrounds can help to understand and appreciate applicants with those same complex needs, possibly leading to less implicit bias or at least having more heads around the table to balance against any one interviewers' implicit biases or assumptions.

Recommendations for implementation of virtual interview format

Recommendation 1: Institutions should require standardized virtual backgrounds so that interviewers are not assessing applicants based on their surroundings. An interviewer explained that "Some of the interviewers started considering interviewee's backgrounds and living space in their assessment, which I thought (and said) was inappropriate."

Recommendation 2: Institutions should not offer both in-person and virtual interview format. Offering a choice of interview format was not recommended by both interviewers and resident applicants because of the possibility of raising inequities between candidates and developing preferential bias towards in-person interviewees.

Recommendation 3: Institutions should transition to virtual residency interviews with in-person clinical electives, as preferred by applicants regardless of whether they had financial needs or were from an underserved community. This would preserve the chance for applicants to do in-person electives and showcase themselves, as it would balance the ability to visit new institutions, but still taper the financial draw of also having to travel to an institution for a separate interview.

Conclusion

CaRMS selection committee members and applicants recognized that virtual interviews were aligned with values of EDI and well-being as they removed and mitigated factors that facilitated infiltration of bias and reduced the potential of lingering injustices to continue to impact the result of interviews. They democratized access to institutions through making application and interviewing possible for applicants, while also broadening the pool of interviewers at institutions. Virtual interviews enabled interviewers to focus on what mattered, instead of the problematic task of conclusively and fairly assessing 'fit' in a short interview. Virtual interviews were credited with improved well-being for trainees, and were shown to have substantial upsides, with fewer downsides than in-person interviews. We suggest that virtual interviews should become the standard for future iterations of CaRMS interviews.

References

1. Paton M, Soleas EK, Hodges BD. reimagining bias: making strange with disclosure. *J Contin Educ Health Prof.* 2021 Apr;41(2):139-44. https://doi.org/10.1097/CEH.0000000000000342

2. Marcotte L, Egan R, Soleas EK, Dalgarno NJ, Norris M, Smith CA. Providing quality feedback to general internal medicine residents in a competency-based assessment environment. *Can Med Educ J.* 2019;10(4). https://doi.org/10.36834/cmej.57323

3. Kanter JW, Rosen DC, Manbeck KE, et al. Addressing microaggressions in racially charged patient-provider interactions: A pilot randomized trial. *BMC Med Educ*. 2020;20(1):1-14. https://doi.org/10.1186/s12909-020-02004-9

4. Relke N, Soleas E, Lui CJPM. Internal medicine residents' and program directors' perception of virtual interviews during COVID-19: a national survey. *Can Med Educ J*. 2022 May 3; https://doi.org/10.36834/cmej.72982

5. Bohnet I. How to take the bias out of interviews. *Harv Bus Rev.* 2016;16:1-5.

6. Nwora C, Allred DB, Verduzco-Gutierrez M. Mitigating bias in virtual interviews for applicants who are underrepresented in medicine. *J Natl Med Assoc*. 2021;113(1):74-6. https://doi.org/10.1016/j.jnma.2020.07.011

7. Huppert LA, Hsiao EC, Cho KC, et al. Virtual interviews at graduate medical education training programs: determining evidence-based best practices. *Acad Med*. 2021;96(8):1137-45. https://doi.org/10.1097/ACM.0000000000003868

8. DiBrito SR, Lopez CM, Jones C, Mathur A. Reducing implicit bias: association of women surgeons# heforshe taskforce best practices recommendations. *J Am Coll Surg*. 2019;228(3):303. https://doi.org/10.1016/j.jamcollsurg.2018.12.011

9. Gray A. *The bias of 'professionalism' standards*. 2019. *SSIR*. https://doi.org/10.48558/TDWC-4756
Casad BJ, Franks JE, Garasky CE, et al. Gender inequality in academia: Problems and solutions for women faculty in STEM. *J Neurosci Res*. 2021;99(1):13-23. https://doi.org/10.1002/jnr.24631