Virtual Reality: Hybrid Interviews Are Here to Stay

Avraham Z. Cooper, M.D., and Jennifer W. McCallister, M.D.

Division of Pulmonary, Critical Care, and Sleep Medicine, the Ohio State University Wexner Medical Center, Columbus, Ohio

ORCID IDs: 0000-0003-1129-5011 (A.Z.C.); 0000-0002-2710-7268 (J.W.M.)

In a landmark shift of the residency and fellowship interview process amid the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) global pandemic, the 2020 and 2021 residency and fellowship interview cycles occurred virtually. This shift came at the recommendation of the Coalition for Physician Accountability and was adopted by national organizations, institutions, and individual training programs (1). The benefits of virtual interviewing (VI), particularly for applicants, were immediately recognized. Absent the need to travel for interviews, applicants experienced dramatically increased convenience and decreased financial costs during residency and fellowship recruitment (2). Minimizing the impact of applicant financial resources on the ability to accept an interview invitation was posited as a way to increase equity. These benefits led to calls for VI to become the permanent standard approach for interviewing, including by the Association of Pulmonary and Critical Care Medicine Program Directors (3, 4).

At the same time, a survey of a selected group of pulmonary and critical care medicine (PCCM) applicants and faculty interviewers after the 2020 interview season found that only a minority (~20%) of applicants favored exclusive VI for future interviews (5). Unsurprisingly, concerns about VI centered on applicants’ inability to visit other cities and meet current fellows and faculty. Similarly, a 2021 National Resident Matching Program residency applicant survey found that a majority (51%) preferred in-person interviews (of note, this survey did not ask about preferences for combined VI and in-person options) (6). In this issue of ATS Scholar, Allam and colleagues describe a cross-sectional survey that sought to provide further insight into the attitudes of PCCM fellowship applicants about VI (7). Using a convenience sample of applicants to 13 U.S. PCCM programs, they surveyed 1,067 applicants after the 2020 match season. Asking respondents to compare their VI experience with prior in-person internal medicine residency interviews, the authors queried three
primary domains: ability to evaluate programs remotely, attitudes about various components of VI, and preferences for future interview formats.

The authors used a methodologically well-designed survey and, despite a convenience sampling approach, reached the majority of 2020 PCCM applicants (1,067 applicants of 1,383 total PCCM applicants in 2020). Threats to validity include a low response rate (29%), which introduces probable self-selection bias and limits generalizability, and the reality that the 2021 virtual application cycle has already completed since the data were gathered. Most respondents reported that they could effectively evaluate the clinical experiences, educational curricula, and academic opportunities offered by programs. Conversely, most believed that VI impaired their ability to assess programmatic culture, facilities, location, and their own potential “fit” within a program. The most helpful components of VI centered on interpersonal interactions, including program director and faculty interviews and connecting with current fellows; pre-recorded program leadership presentations and video testimonials, virtual tours, and access to didactic conferences were seen as less beneficial.

Only 9% of respondents preferred exclusive VI for fellowship interviews in the future. VI with optional in-person visits was the most popular interview format, with 43% of respondents preferring this format. Almost 90% of respondents expressed concern that, if given a choice between VI and in-person interviews, their choice would affect how programs ranked them. There were no differences in preferred interview formats between applicants from groups underrepresented in medicine (UiM) and those not from underrepresented backgrounds.

The authors conclude that most applicants preferred future interview formats to include both virtual and in-person components. They also outline aspects of the VI experience that applicants found most and least helpful, which should inform how programs design future VI experiences. Finally, the authors highlight a very real concern that most respondents reported: that, if given a choice between VI and in-person options, their choice could affect how programs rank them. Regarding preferences for future interview formats, this study’s conclusions are in line with other applicant survey results from the 2020 and 2021 application cycles, during which only a minority of respondents preferred exclusive VI without any in-person component.

There remains lingering uncertainty about where to go from here as a PCCM medical education community. Should interviews remain exclusively virtual, acknowledging that VI likely does increase equity across the application process and has clear financial and convenience benefits for applicants? Should a hybrid approach become the new standard, where applicants either 1) interview virtually with optional in-person visits or 2) choose between in-person and VI formats within a given program? Or should applicants’ concerns about their ability to adequately assess a program’s culture from afar push us to return to exclusively in-person interviews as soon as the pandemic permits?

VI has considerable benefits for applicants, and we anticipate that it likely will remain in place, in some capacity, going forward. Therefore, we do not discuss exclusively in-person interview formats further in this editorial. But the question of exclusively virtual versus hybrid interview formats persists. We believe that a hybrid interview format, with virtual
interviews and optional in-person applicant visits, is the optimal structure that governing organizations, institutions, and program directors should adopt.

As program directors, we have serious concerns about continuing with exclusive VI going forward. First, applicants in this study believed they were hindered in their ability to judge programmatic culture, life within a larger local community, and “fit” within programs from afar. Virtual social events and interviews, even when done well, cannot substitute for walking the halls of a hospital, chatting with fellows and faculty, and experiencing a program’s culture in person. It is worth investigating whether 2020 and 2021 fellowship applicants opted to remain at their home institutions at higher than historical rates.

A hybrid interview format would allow both the benefits of VI and the irreplaceable connectivity that comes with visiting programs in person. Individual programs and institutions will have to construct interview experiences that best showcase their own educational opportunities and culture, but we suggest that in-person pre- or postinterview applicant visits should be both optional and anonymous (e.g., program leadership does not know which applicants choose to visit in person). We recommend optional in-person visits because requiring such visits would undermine all of the benefits of VI, whether regarding cost, convenience, or equity. We recommend anonymous visits to avoid the possibility of programs using such decisions by applicants as a proxy for interest and allowing this to impact rank decisions.

To accomplish anonymous in-person visits, individual programs will need to rely on local resources and education partners. We suggest that programs seek support from their graduate medical education and office of diversity and inclusion leaders when available. Infrastructure for institutional second-look programs may already exist to support initiatives to invite applicants to return to campus after the completion of their VI that can be leveraged independent of the fellowship program. Similarly, programs could consider collaborative efforts across subspecialties to identify educational ambassadors who can coordinate visits that are not program specific. Finally, as an education community, we should consider the need to contribute to a broader conversation that would allow programs and trainees to submit their rank lists on a staggered timeline to facilitate such visits in the future.

We worry that exclusive VI, although likely increasing equity for applicants of diverse backgrounds, may actually impair inclusion for those who identify as UIM. Although equity represents fair and equal access to opportunities, regardless of life situation or circumstances, inclusion reflects a sense of belonging and purpose in a given community (8). Equity is necessary for inclusion but not sufficient, and ultimately achieving inclusion is the goal of an equitable process. How can a UIM applicant reliably experience a true sense of inclusion for programs that they have never visited? Demonstration of commitment to diversity on program websites, recruitment materials, and VI days is important. But how can that replace what it is like for an applicant to visit a program, a hospital, and a city in person, imagining their place within those concentric communities? As the saying goes, all politics is local. Fellowship applications are no different.

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REFERENCES

1. Coalition for Physician Accountability’s Work Group on Medical Students in the Class of 2021 Moving Across Institutions for Post Graduate Training. Final report and recommendations for medical education institutions of LCME-accredited, U.S. osteopathic, and non-U.S. medical school applicants. Washington, DC: Association of American Medical Colleges; 2020 [accessed 2022 Jan 11]. Available from: https://www.aamc.org/system/files/2020-05/covid19_Final_Recommendations_Executive%20Summary_Final_05112020.pdf.

2. Association of American Medical Colleges. The cost of interviewing for residency. Washington, DC: Association of American Medical Colleges; 2021 [accessed 2022 Jan 11]. Available from: https://students-residents.aamc.org/financial-aid-resources/cost-interviewing-residency.

3. Huppert LA, Hsiao EC, Cho KC, Marquez C, Chaudhry RJ, Frank J, et al. Virtual interviews at graduate medical education training programs: determining evidence-based best practices. Acad Med 2020;96:1137–1145.

4. Association of Pulmonary and Critical Care Medicine Program Directors (APCCMPD). APCCMPD interview task force recommendations for 2021–2022 recruitment cycle. Chicago: APCCMPD Board of Directors [accessed 2021 Dec 30]. Available from: https://apccmpd.memberclicks.net/assets/Advocacy/APCCMPD_2021_Interview_Recommendations 5.27.21.pdf.

5. Strumpf Z, Miller C, Livingston D, Shaman Z, Matta M. Virtual interviews: challenges and opportunities for pulmonary disease and critical care medicine fellowship programs. ATS Scholar 2021;2:535–543.

6. National Resident Matching Program. 2021 applicant and program director survey findings: impact of the virtual experience on the transition to residency: research brief. Washington, DC: National Resident Matching Program [accessed 2022 Jan 10]. Available from: https://www.nrmp.org/wp-content/uploads/2021/08/Research-Brief-Virtual-Experience-2021-FINAL.pdf.

7. Allam JS, Burkart KM, Çoruh B, Lee M, Hinkle L, Kreider M, et al.; Association of Pulmonary and Critical Care Medicine Program Directors. The virtual interview experience: perspectives of pulmonary and critical care fellowship applicants. ATS Scholar 2022;3:76–86.

8. Defining DEI. Ann Arbor, MI; University of Michigan [accessed 2022 Jan 11]. Available from: https://diversity.umich.edu/about/defining-dei/.