European Review for Medical and Pharmacological Sciences 2021; 25: 7829-7832

How real is a virtual interview? Perspectives of orthopaedic surgery residency directors

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Abstract. – OBJECTIVE: As a result of COVID-19 pandemic, the 2021 US residency MATCH was devoid of the traditional in-person interviews. Herein, we assess the impact of Virtual Interviews (VIs) on resident selection, from the perspectives of Orthopedic Surgery (OS) Program Directors (PDs).

MATERIALS AND METHODS: A 14-item survey was sent to PDs of ACGME-accredited OS residencies. Questions were designed to assess the pros, cons, and robustness of VIs compared to their antecedent in-person format.

RESULTS: Forty-seven PDs responded to our survey. VIs antagonized PDs' ability to assess applicants' fit to program (76.6%), commitment to specialty (64%), and interpersonal skills (68.1%). This led to heavier dependence upon applicants' portfolios (64%). Almost all respondents (97.9%) found VIs to be more cost-efficient, saving a median of $3000 in interview-related expenses. Overall, only 8.5% of PDs were willing to conduct exclusive VIs in future cycles, compared to the majority in favor of dual formats (51.5%) or exclusive in-person interviews (40.4%).

CONCLUSIONS: VIs have been an overall success, making most PDs opt for dual interview formats in future cycles. How this technology is further implemented in the future remains to be seen.

Key Words:
Orthopedic, Surgery, Residency, COVID-19, Virtual, Interviews.

Introduction

Orthopedic surgery (OS) is among the most competitive specialties for US residency applicants every year. Owing to residency's rigorous and challenging nature, program directors (PDs) are always keen to build a well-fitting and coactive team. This process relies on many factors, with in-person interviews being an essential tool for assessing interpersonal skills, professionalism, commitment to specialty, and applicants' fit into the team.

MATCH 2021 was devoid of these traditional in-person interviews and accompanying pre-interview socials, demanding urgent adaptations on behalf of both programs and applicants[1-3]. While virtual interviews (VI) were introduced due to travel restrictions, their efficacy in selecting future residents is still under question. Thereby, we sought to assess the pros, cons, and robustness of VIs compared to their antecedent in-person format from the perspectives of PDs.

Materials and Methods

We conducted a cross-sectional, 14-question, survey-based study of ACGME-accredited OS residency PDs. The survey was built upon careful review of pertinent literature, and a pilot version was tested before dissemination[4,5]. The study gained approval from the Baylor College of Medicine (BCM) Institutional Research Board (IRB). Research Electronic Data Capture (REDCap) web-based application was used as a means of survey administration. Responses were gathered from December 2020 through March 2021.

PDs were queried about the size of their upcoming intern class, the percentage of VIs hindered by technical errors, and the estimated reduction in interview costs this cycle. A 3-point Likert-like scale (Agree, Neutral, Disagree) was used to compare VIs to in-person interviews as illustrated in Figure 1. Lastly, PDs were asked about their future preferences and willingness to offer VIs over the following years.

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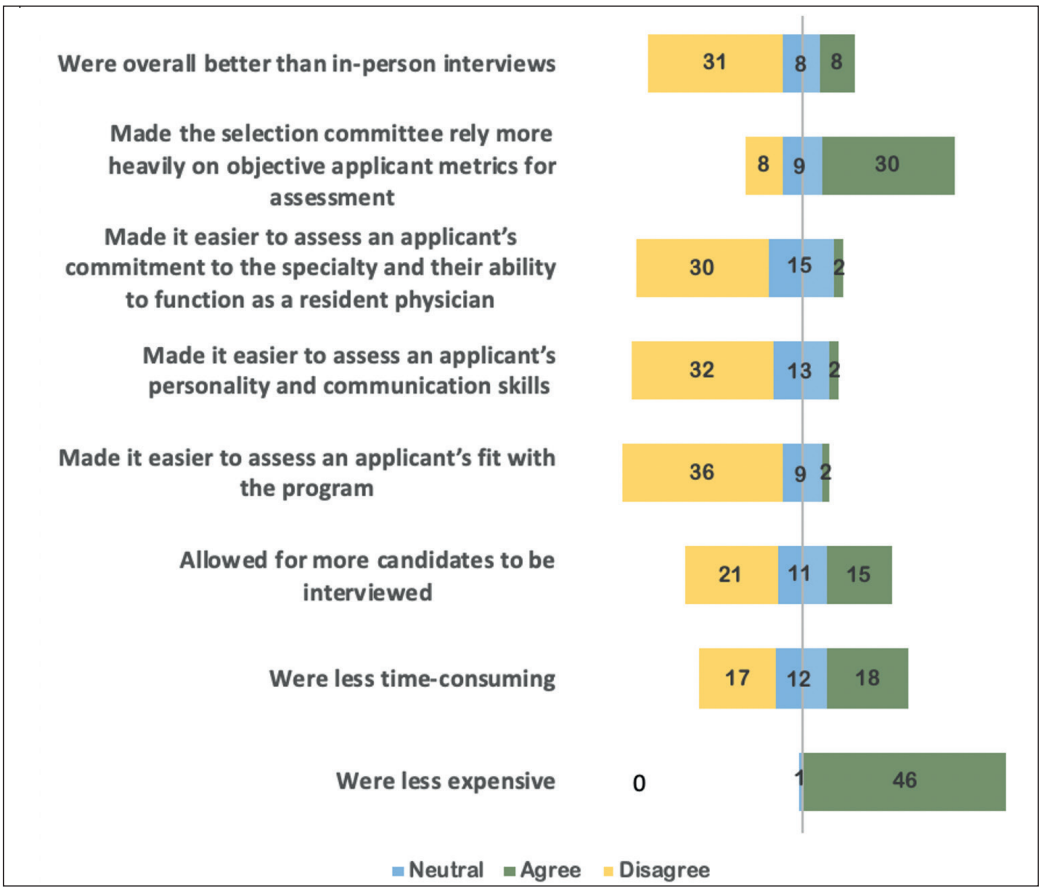

Figure 1. PDs' perspectives on virtual versus in-person interviews.

Results

We received a total of 47 responses (28.3%). A median of 4 intern positions was offered per residency program. The majority of our respondents found it harder to assess applicants' fit to program (76.6%), commitment to specialty (64%), and interpersonal skills (68.1%) through VIs. This, in turn, led to heavier dependence upon applicants' portfolios than in previous cycles (64%). There were no significant differences concerning the time factor compared to in-person interviews (38.3% *vs.* 25.5% *vs.* 36.2%), nor was there an increased number of interviews offered due to the VI platform (31.9% *vs.* 23.4% *vs.* 44.7%) (Figure 1).

Almost all respondents (97.9%) found VIs to be more cost-efficient, saving a median of $3000 in interview-related expenses. Attendance of virtual pre-interview socials was not considered by most of the programs that offered them (66.7%). Lastly, technical issues did not seem to hinder the interview process, with a median of 9% of VIs facing considerable limitations. Overall, only a minority of respondents were willing to offer exclusive VIs in future cycles (8.5%). The majority, however, were in favor of dual (51.5%) or exclusive in-person formats (40.4%) (Table I and Figure 1).

Discussion

It is understandable from using video calls for personal interactions, that there would be a missing component of personal attire, demeanour, and body language – all constituting the overall "in-person vibe". Therefore, there is no surprise that most of our respondents found it challenging to assess applicants' fit to the program, commitment to specialty, and interpersonal skills through VIs. The absence of in-person pre-interview social events and away rotations could have augmented this as well[2]. This contrasts with previous reports from the 2020 fellowship MATCH, where multiple studies have

reported greater satisfaction amongst both applicants and PDs[6,7]. This discretion might stem from the faculty's familiarity with fellowship interviewees, who are usually more prominent to their interviewers by virtue of their time in residency training. This is not the case with residency PDs interviewing fresh medical school graduates.

Financial-wise, VIs saved an average of $3000 per program, which is arguably not a big difference for the program itself. Nonetheless, the reduction in cost from an applicant's point of view is rather significant. Previous studies estimated that the average fellowship interviewee spends well above $4000 on classic in-person interviews[8]. By virtue of the greater number of Orthopedics residencies, this number is likely to be an underestimation for residency applicants. A previous survey[9] of OS residency applicants reported an average spending of $7100 in interview costs alone, with 72% of applicants borrowing money for this purpose, and 28% cancelling due to financial difficulties.

There was no significant reduction in time spent organizing and executing VIs compared to in-person interviews, which might trace back to unfamiliarity with the software and possible need for technical support. Strategies to smoothen out the process include conducting mock interviews and setting a standard operating procedure. Surprisingly, while an increase in interview invitations was witnessed in other specialties, there was no such consensus amongst OS PDs. This may trace back to a careful selection process of interviewees, which filters a small number of top-notch applicants for further assessment.

Sixty-four percent of our respondents agreed to the extra weightage of applicants' portfolios this cycle. This suggests that future advancements towards VIs will possibly over-scrutinize the importance of applicants' USMLE scores, letters of recommendation, and research productivity. It would be interesting to re-evaluate future perspectives to see if an increased familiarity with this format has improved the daunting process of resident selection. The robustness of VIs, flexible scheduling, and reduction in money expenditure for the heavily indebted medical student are all factors that credit into a strong future for VIs[10].

Limitations

Our study was met by some limitations. First, its cross-sectional nature made it difficult to assess the temporal changes in PDs' perspectives regarding VIs. Secondly, due to the time of survey administration, our results were devoid of the possible impact of NRMP match results on PDs' perceptions of VIs. Lastly, our survey's limited response rate might not represent all programs; yet we believe that this had minimal impact on our results, given the high congruity amongst PDs' responses.

Conclusions

To summarize, VIs have been an overall success, making most PDs opt for dual interview formats in future cycles. How this technology is further implemented in the future remains to be seen.

Table I. Technical difficulties, cost-savings, and future preferences of program directors.

Question		**Median (IQR)**	
What is the size of your intern class for the 2021-2022 academic year? (Please include both preliminary and categorical residents)		4 (3-5)	
Approximately what percentage of interviews was complicated by technical difficulties that limited an interviewer's interaction with or evaluation of an applicant		9 (0-10)	
(Optional) What was your estimated reduction in interview-related expenses by employing a virtual interview format		$ 3000 (1000-5000)	
Question	**Yes**	**No**	**Not Applicable**
If you offered virtual social events before interviews, was an applicant's attendance at such events considered while selecting an applicant to interview and rank?	11 (23.4)	22 (46.8)	14 (29.8)
Question	**In-person Only**	**Virtual Only**	**Both**
What type(s) of residency interviews will you offer in the coming cycles once in-person interviews are possible and travel restrictions are over?	19 (40.4)	4 (8.5)	24 (51.5)

Acknowledgments
This study is approved by the Institutional Research Board at Baylor College of Medicine.

Conflicts of Interest
The authors declare that they have no conflicts of interest or financial disclosures.

Contributions
RE: Design and conception; Data collection and interpretation; Drafting of article; Submission of work. ME: Design and conception; Survey drafting; Data analysis; Critical revision of the article. AMF: Design and conception; Conduction of survey; Data collection. AR: Design and conception; Critical revision of the article. RSM: Design and conception; Critical revision of the article.

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