Do Interviews Really Matter in Generating Programs and Applicants' Rank Lists for the Match?

Christopher Di Felice, MD, Pallavi Sharma, MD, David A. Folt, MD, Rodney J. Folz, MD, Frank Jacono, MD, Shine Raju, MD, Mohammad A. Shatat, MD, Joanne McKell, MD, Anna May, MD, and Maroun Matta, MD

Methods: For the 2020 appointment year, our program used an Electronic Residency Application System Application Scoring Tool and Interview Scoring Tool to generate the preliminary rank list for our pulmonary and critical care fellowship applicants. The final rank list was decided after interviewers' discussion during the program's rank list meeting. We aimed to correlate the preliminary and final lists. We also surveyed applicants on the importance of interview day in generating their rank list.

Results: The final and the preliminary rank lists were strongly correlated ($r_s(47) = 0.87$, P < 0.001). There was a stronger correlation between the final rank and the rank based on the application score ($r_s(47) = 0.84$, P < 0.001) than the rank based on the interview score ($r_s(47) = 0.64$, P < 0.001). For the postinterview survey, 48 applicants were surveyed—20 replied with a response rate of 42% and 18 respondents (90%) rated the interview experience as important or very important in their rank list decisions.

- From the Departments of Pulmonary, Critical Care, and Sleep Medicine and Internal Medicine, University Hospitals Cleveland Medical Center/Case Western Reserve University, Cleveland, Ohio.
- Correspondence to Dr Maroun Matta, University Hospitals Cleveland Medical Center, 11100 Euclid Ave, Cleveland, OH 44106. E-mail: maroun.matta@ uhhospitals.org.
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Conclusions: The programs rank list correlated more with the candidates' written application than their interview day performance; however, interview experience greatly influenced the applicants' rank lists. In the coronavirus disease 2019 pandemic, in which all interviews are virtual, programs should make diligent efforts to construct virtual interview days, given their importance to applicants in generating their final rank list for the match.

Key Words: ERAS application, interview, match, rank list, score

The National Residency Match Program Specialty Matching Service has reported that 2020 was the largest appointment year in the history of the residency match, with 40,084 applicants and the fellowship match with 12,042 applicants.¹ Each year, candidates begin the match by submitting their applications to participating programs using the Electronic Residency Application Service (ERAS). Every program has an internal process for selecting candidates to interview for available positions. Multiple factors are often included in this selection process

Key Points

- During the 2020 appointment year, our pulmonary and critical care fellowship program implemented the Electronic Residency Application System Application Scoring Tool and Interview Scoring Tool for applicant ranking.
- Comparing the application and interview scores with the final rank list, we observed a stronger correlation between the final rank and the rank based on the application score than the rank based on the interview score.
- We surveyed applicants about how the interview process influenced their rank decisions and found that 90% of respondents viewed the interview day as important or very important in determining their rank list.
- We conclude that although the impact of the interview may not strongly affect the program's final risk, it is of great importance to the applicants.

Objective: A paucity of data exists on the role of the interview day in programs and applicants' final rank list. The objective of our study was to investigate the impact interview day has on our programs and our interviewees' final rank list.

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including an applicant's personal statement, medical board examination scores, research accomplishments, and letters of recommendation. The final hurdle for both the applicant and program is the creation of a rank list that ultimately determines the match result.

To date, no standardized assessment tool has been widely adopted to assist programs in generating their rank lists. Bosslet et al sought to address this deficiency by developing a novel scoring tool that standardizes the process by which postgraduate medical education programs rank applicants.² The ERAS Application Scoring Tool (EAST) and Interview Scoring Tool (IST) weighed elements of the candidate's written application and interview day performance to determine a final rank score and order. Each program can customize this tool to fit its institution-specific mission and culture. In a multicenter study, the EAST-IST correlated favorably with conventional ranking methods. Despite its promise as a standardized tool for applicant ranking, uncertainty remains about the importance of the interview day itself on program and applicant rank decisions.

The applicant interview is a large component of the match. It is an opportunity for candidates to see the "personality" of a program and whether they would be a good fit.³ Before the interview, candidates often invest a substantial amount of time to learn about the program, develop relevant questions, and determine how to best show interest in the program.⁴ Likewise, programs also allocate resources and faculty time to ensure that applicants have a wholesome interview experience. Despite these efforts, little evidence exists to support that the interview process strongly influences how candidates or programs determine their rank list for the match. Moreover, as interviews became virtual in the coronavirus disease 2019 (COVID-19) pandemic, it has become even more important to determine how crucial the in-person interview is for candidates and programs in generating rank lists.

This study describes the results of implementing the EAST-IST protocol in a pulmonary and critical care fellowship program within an academic tertiary care medical center. Our study evaluates the role of the interview process as part of the EAST-IST in generating the program rank list. A coprimary aim was to assess the impact of the in-person interview on applicant rank decisions, an especially relevant consideration in the era of virtual interviews.

Methods

Program Overview

The pulmonary and critical care fellowship at University Hospitals Cleveland Medical Center and Case Western Reserve University is a 3-year program with 15 fellows. Each year, a core group of faculty members review more than 450 applications, approximately 50 of which are selected to interview for 5 positions.

Implementation of the EAST-IST Protocol

During the 2020 fellowship appointment year, our program adopted the EAST-IST protocol for applicant ranking. Briefly,

the EAST-IST is a customizable tool, developed and validated across multiple centers for ranking candidates for a residency or fellowship program. The implementation process of the EAST-IST is well described.² For our rank selection, we weighed the EAST (50 points) and IST (50 points) evenly. This even allocation was determined based on the program's previous culture of ranking both the ERAS and in-person interview performance equally. The EAST variables selected and the weighting process ("priority points") are shown in Supplemental Digital Content 1 (http://links.lww.com/SMJ/A267). All of the faculty involved in the interview process formulated a consensus on which variables to rank and the point allocation of those variables. This allowed each faculty member to contribute to what variables were important to them, leading to a more balanced reflection of which candidates were sought after. The program director then imputed all of the EAST scores. The IST includes 4 domains (Academic Potential, Interpersonal Skills, Insight, and Fit Factor), graded on a 5-point Likert scale (see Supplemental Digital Content 2 for the IST protocol, http://links.lww.com/SMJ/A267).

Interview Structure and Candidate Selection for Rank

Fellowship interviews were conducted during an 8-week period, with an average of six applicants meeting with six interviewers each day. Each interviewer completed a separate IST for every applicant. After completing all of the interviews, applicants were assigned a rank order number based on their combined EAST-IST final score (maximum of 100 points). This was followed by a rank meeting, which included faculty and fellows who participated in the interview process. During the meeting, each candidate's application was reviewed and discussed among the group. The rank order could only be changed if consensus was reached among all of the members of the rank meeting. The final rank list was approved and later submitted to the National Residency Match Program by the program director.

Applicant Survey

After the fellowship match, an anonymous survey was sent using SurveyMonkey (SurveyMonkey, Palo Alto, CA) to all of the ranked applicants who interviewed at our program for a fellowship position. Each candidate was asked the following question, "After considering an institution's reputation, faculty reputation, program research accomplishments, and geographic location, how would you rate the importance of your interview experience on making your rank list?" A 5-point Likert scale ranging from "not important" to "very important" was used to generate a weighted average score.

Statistical Analysis

Data were collected and securely stored using an encrypted hard drive. Analysis was conducted using R (R Foundation for Statistical Computing, Vienna, Austria; http://www.R-project. org). Pearson and Spearman correlation coefficients were used for the comparison of continuous and ordinal variables, respectively, with a P < 0.05 indicating statistical significance. This study was approved by the Case Western Reserve University institutional review board.

Results

Comparison of EAST versus IST, EAST-IST versus Final Rank, EAST versus Final Rank, and IST versus Final Rank

Figure 1A–D shows the scatterplots for each comparison. The EAST and IST scores were only moderately positively correlated (r(47) = 0.55, P < 0.001; Fig. 1A). The final rank after the rank list meeting and the original rank list based on the EAST-IST score were strongly correlated (r_s(47) = 0.87, P < 0.001; Fig. 1B). Significant change in rank, defined as ≥10 spots in any direction, occurred in 9 of the 49 applicants reviewed. There was a stronger correlation between the final rank and the rank based on the EAST score (r_s(47) = 0.84, P < 0.001; Fig. 1C) than the correlation between the final rank and the rank based on the IST score (r_s(47) = 0.64, P < 0.001; Fig. 1D).

Postinterview Applicant Survey

Forty-eight applicants were sent the survey question (one applicant was not ranked). Among them, 20 completed the survey (42%), 1 opted out, and 27 failed to respond. Most of the respondents (90%) rated the interview experience as important or very important in their rank list decisions (Fig. 2). The weighted average score among respondents was 4.5 out of 5.

Discussion

Applying for residency or fellowship is a competitive endeavor, with programs extending interviews to a small number of candidates relative to the large applicant pool each year. Fellowship candidate selection currently involves two extensive processes: a review of data as provided in ERAS and the interview day. Each program scores the various components of the application and interview largely subjectively, allowing for bias in this process.⁵ At present, there are limited data outlining how programs eliminate bias in candidate selection.² As such, the use of a standardized scoring tool, such as the EAST-IST, has the potential to improve objectivity in applicant ranking.



Fig. 1. Correlation between EAST, IST, EAST-IST, and final rank. EAST versus IST, r(47) = 0.55, P < 0.001 (A); EAST-IST versus final rank, $r_s(47) = 0.87$, P < 0.001 (B); EAST versus final rank, $r_s(47) = 0.84$, P < 0.001 (C); and IST versus final rank $r_s(47) = 0.64$, P < 0.001 (D). EAST, Electronic Residency Application System Application Scoring Tool; IST, Interview Scoring Tool.

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Fig. 2. Postinterview applicant survey. A 5-point Likert scale was used to grade each applicant's response, ranging from "not important" to "very important."

In our study, the rank order derived from the EAST-IST correlated closely with the final rank list. A noteworthy difference in our implementation strategy compared with that of Bosslet et al² is that we combined the EAST-IST score with the results of the rank meeting. A valid criticism of this approach is the potential for introducing bias into the selection process, departing from the goal of ranking applicants with impartiality. Nevertheless, the strong correlation between the EAST-IST and the final rank suggests that few modifications were made in the rank meeting, a finding that we attribute to the objective nature of implementing a standardized scoring system. The benefit of having a scoring tool of this caliber is that candidates are selected based on specific application and interview data as opposed to interviewers' individual perceptions and biases of the candidate. The EAST-IST allowed our program to select applicants based on objective data, ensuring that all of the candidates have been through a standardized selection process.

In subsequent analyses, the EAST and IST scores were separated and compared with the final rank list. Interestingly, the EAST score was found to have a stronger correlation with the final rank than the IST score. This finding questions the impact of the interview day on program rank decisions and challenges the perception that interview performance is weighed evenly against a candidate's written application. The importance of the employment interview has been stressed in all professional careers, sometimes positing it as the only means of learning about a candidate's fit for a position.⁴ The fellowship interview is immensely stressful for the applicant, who invests a significant amount of time preparing for the interview day. For fellowship programs, it was originally believed to be a final screen of a candidate before rank listing⁴; however, based on our results, it seems that the interview day itself is of less importance to the program. This is evidenced by our final rank list more closely resembling the candidate's application score, not the interview score. Given the weak correlation between the final rank and IST score, it was important for us to gain further perspective

from the candidates regarding the interview process and how it influenced their rank decisions.

Following the match, all of the ranked applicants were surveyed regarding how important the interview was to them in making their final rank list. As discussed above, from a program standpoint, the interview did not strongly influence rank decisions when using a standardized interview scoring tool for applicant ranking. Our applicant survey found that the interview was important to 90% of the candidates in determining their rank order list, however. Considering these findings, it seems that candidates still greatly value the interview experience because it may provide them insight into the culture, faculty, facilities, and interactions among the staff of a program. This unfortunately becomes difficult with the COVID-19 pandemic, but these results indicate that programs should invest the time and resources in constructing a wholesome virtual interview experience. Interviews this year can be conducted via platforms such as Zoom (Zoom Video Communications, San Jose, CA) or Skype (Skype Communications SARL, Luxembourg City, Luxembourg), which allow multiple breakout rooms for individual and group interview settings.

This study has some limitations. First, the rank order as determined by the EAST-IST was adjusted during our rank meeting, creating the potential for bias in the selection process. We believe, however, that the rank meeting can be a complementary strategy to the EAST-IST protocol, particularly for institutions that are introducing a standardized scoring system for the first time. Second, a limitation of all survey-derived data is the potential for participation bias, suggesting that only those who valued the interview may have responded to our survey and vice versa.⁶ Nevertheless, we suspect that the respondents' answers are consistent with the perception held by most applicants—that interviewing is important in determining rank decisions.

Moreover, we are describing the experience of a single center and a small group of applicants, which may not reflect the broader experience and values of other programs. Finally, the present culture of residency and fellowship applications in general assumes that all programs provide opportunities to pursue "desirable" ranked items such as research publications, which unfortunately is not always the case. This difference in availability of resources likely significantly affects rank decisions in most residency and fellowship programs.

Conclusions

The EAST-IST allowed for the standardized ranking of fellowship candidates. In comparison, the EAST score is more strongly correlated to the final rank than the IST score, indicating that the objective assessment of application data has a greater influence over ranking decisions than the interview day. An important role for the interview still exists, however. Postinterview contributions from applicants indicate that the candidates value the interview experience and use it to determine final rank list decisions. Despite limitations to the traditional interview structure because of the COVID-19 pandemic, virtual interview days should be thoughtfully constructed to maintain as much normalcy as possible, because this experience is important to candidates and should continue. Further investigation is needed to identify which aspects of the interview day guide the applicant and program in their decision-making process for the match.

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