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# Rank List Formation Among Orthopaedic Surgery Applicants and Program Directors During the COVID-19 Pandemic



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# **INTRODUCTION**

- The COVID-19 pandemic created unprecedented challenges for program directors (PDs) during the 2021 orthopaedic residency application season, requiring many alterations to the traditional application cycle and interview format [1,2,4].
- Away rotations were restricted, and in-person interviews were discouraged in accordance with the Association of American Medical Colleges (AAMC) and the American Orthopaedic Association Counsel of Orthopaedic Residency Directors (CORD) [1,2,4].
- Programs mitigated the loss of these in-person encounters by conducting virtual rotations (VRs), informational sessions, and virtual interviews (VIs) [4].
- Traditionally, applicants to orthopaedic residency programs are ranked primarily by United States Medical Licensing Examination (USMLE) Step 1 scores, Alpha Omega Alpha (AOA) status, third-year clerkship grades, research experiences, and letters of recommendation (LORs) [5,9].
- Performance of applicants during in-person orthopaedic rotations has been especially important [5].
- PDs have previously indicated that rotating with their program is the most important criterium in ranking applicants [3,9].
- In the past, over half of matched applicants match at their home institution or a program where they have rotated [8,9]
- PDs and applicants clearly value away rotations and in-person interactions to determine whether applicants will be successful in their programs, and there is concern that ability to assess applicant compatibility may be limited in virtual interactions [5,6,9].
- How VI impact rank list formation for both orthopaedic PDs and applicants is unclear.

# **OBJECTIVES**

- 1. What factors impacted program director rank list formation during the 2021 application process?
- 2. What factors impacted applicant rank list formation during the 2021 application process?
- 3. For program directors assessing applicants, how effective were virtual interviews?
- 4. For applicants assessing residency programs, how effective were virtual interviews?

## **METHODS**

- The surveys were sent to PDs from Accreditation Council for Graduate Medical Education (ACGME) accredited orthopaedic residency programs, as well as to 4th year medical students (MS4s) who matched into orthopaedic surgery in March 2021.
- Unmatched applicants were excluded.
- Two surveys were administered electronically, including one for PDs and one for MS4s, both utilized a Likert Scale.
- The PD survey was a 41-item, three-part electronic survey. Part I included 8 questions assessing basic information about each residency program. Part II included 21 questions assessing factors impacting PD rank list formation during the 2021 application process. Part III included 14 questions assessing each program's VI experience. 20 of the most impactful results are shown below.
- The MS4 survey was a 31-item, three-part electronic survey. Part I included 11 questions assessing basic demographic and applicant information. Part II included 14 questions assessing factors impacting applicants' rank lists. Part III included 8 questions assessing applicants' VI experiences. 14 of the most impactful results are shown below.

## **RESULTS**

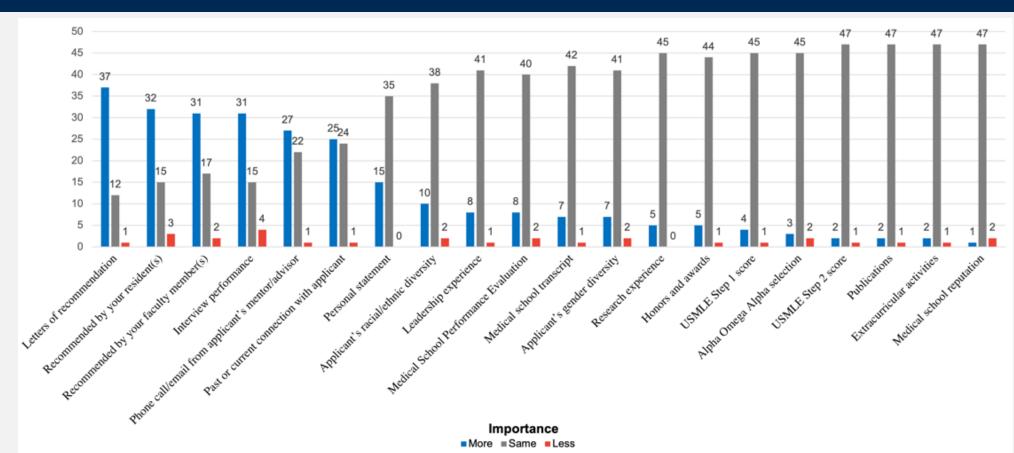


Fig 1: PD Survey Assessing rank list formation factors during 2021 compared to prior years (n=50)

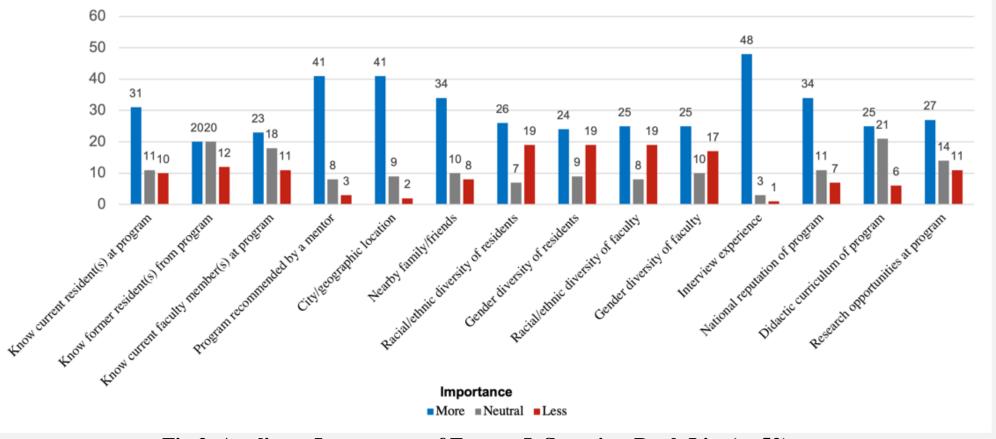


Fig 2: Applicant Importance of Factors Influencing Rank List (n=52)

# **RESULTS (cont)**

- Limited in-person interactions increased the importance of LORs, resident and faculty recommendations, and interview performance, as compared to previous application cycles.
- Applicants considered mentor recommendations, city/geographic location, proximity to family, national reputation, and VI experiences as highly important factors when ranking programs.
- Most PDs and MS4s were satisfied with VIs and felt able to adequately assess prospective applicants and residency programs, respectively.

## DISCUSSION

- Virtual assessment of applicants in medicine has been effectively implemented pre-COVID, during this pandemic, and will continue to play an important role in the selection process post-COVID.
- Full assessment of the impacts of VIs and VRs on orthopaedic residency applications will require longitudinal, comparative studies evaluating clinical performance of residents and PD satisfaction with the 2021 orthopaedic resident intern classes, especially in comparison to prior years.

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