

New virtual CaRMS: perspectives from residency programs



The coronavirus disease 2019 (COVID-19) pandemic will have long-lasting effects on health care, ranging from clinical practice to medical education. Since March 2020, the Association of Faculties of Medicine of Canada and medical schools across the country have been responding to the outbreak by taking numerous precautionary measures. These measures have resulted in a compressed and delayed timeline for all medical trainees, especially the class of 2021. Canadian program directors and residency selection committees are facing unprecedented challenges for the recruitment and assessment of applicants in the upcoming cycle, in particular with the cancellation of visiting electives.¹ The ophthalmology match will be especially challenging, as it was the most competitive specialty in the previous 2020

Canadian Resident Matching Service (CaRMS) cycle² and the majority of applicants will be unknown to the programs.

We sought to assess the preparedness of ophthalmology residency selection committees for the 2021 R-1 CaRMS match and make recommendations to optimize the promotion of residency programs to all applicants.³

Methods

A cross-sectional online survey consisting of 30 questions was developed using Google Forms (Mountain View, Calif). Initially 6 residency selection program members pilot-tested and reviewed the survey, which was then sent to the Association of Canadian University Professors of Ophthalmology for approval. In August 2020, program directors, ophthalmology department chairs, and administrative contacts of

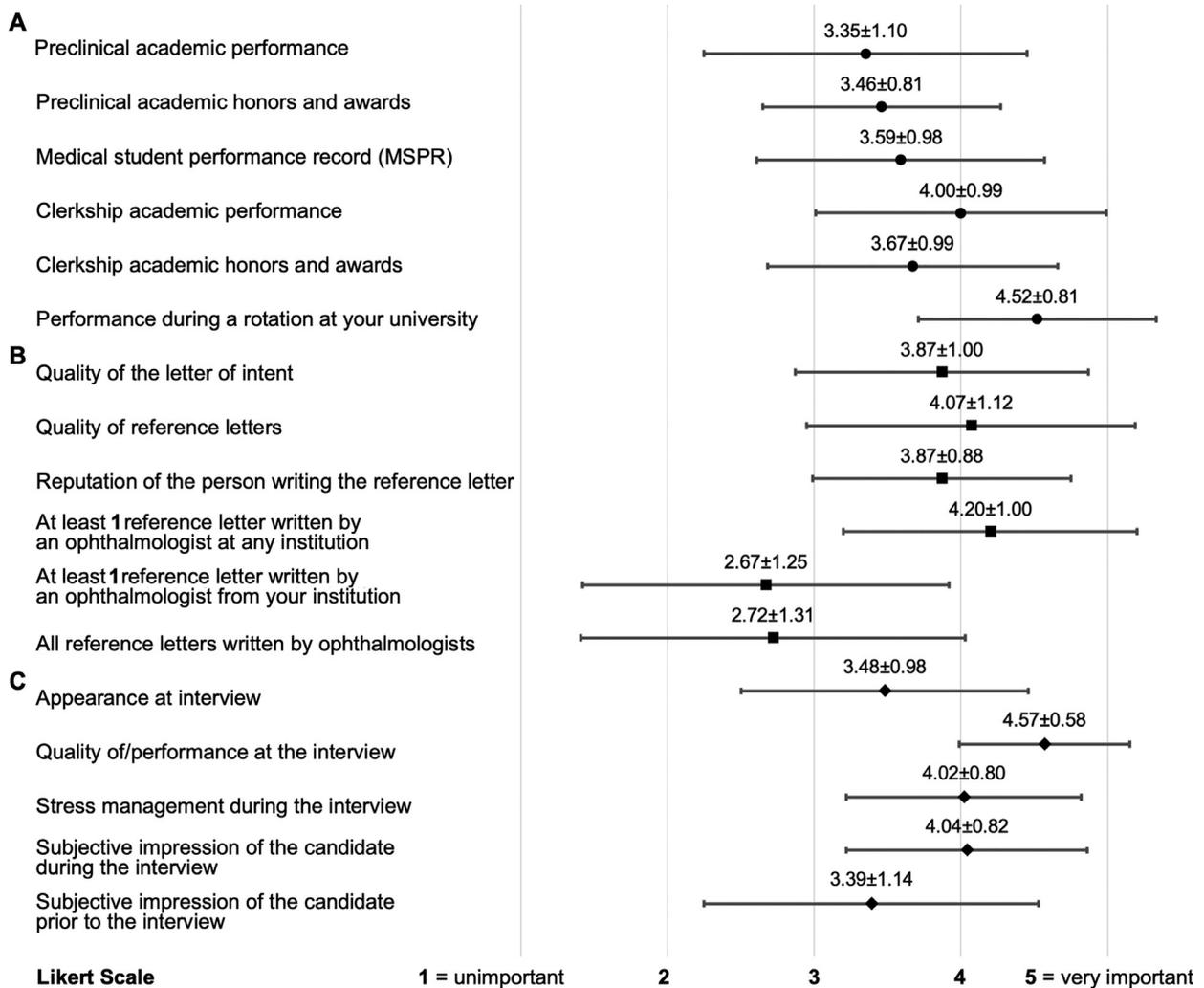


Fig. 1—Scores (mean and standard deviation) of importance given to applicants' performance during (A) preclerkship and rotations, (B) personal letter and letters of reference, and (C) interviews (N = 46).

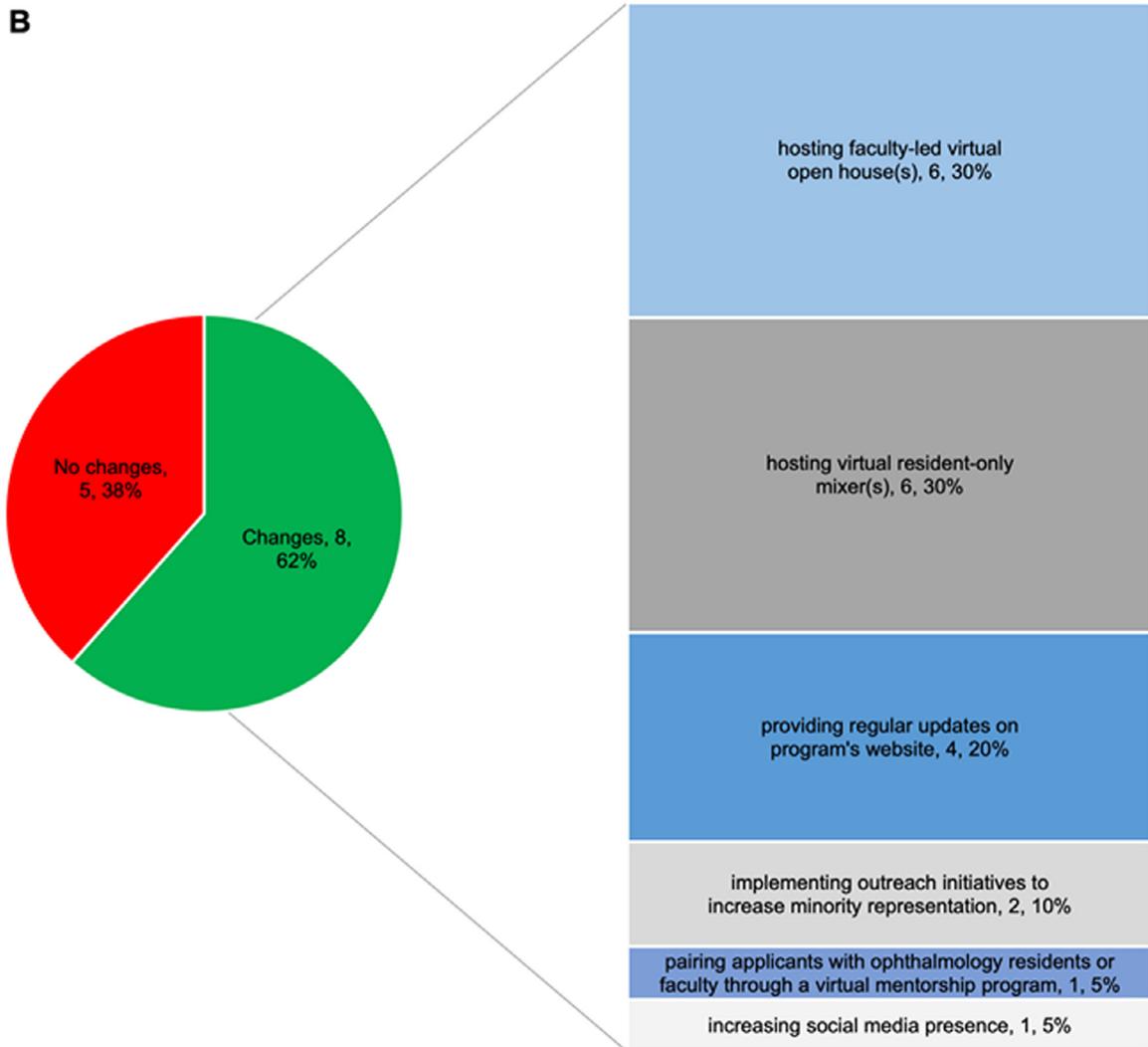
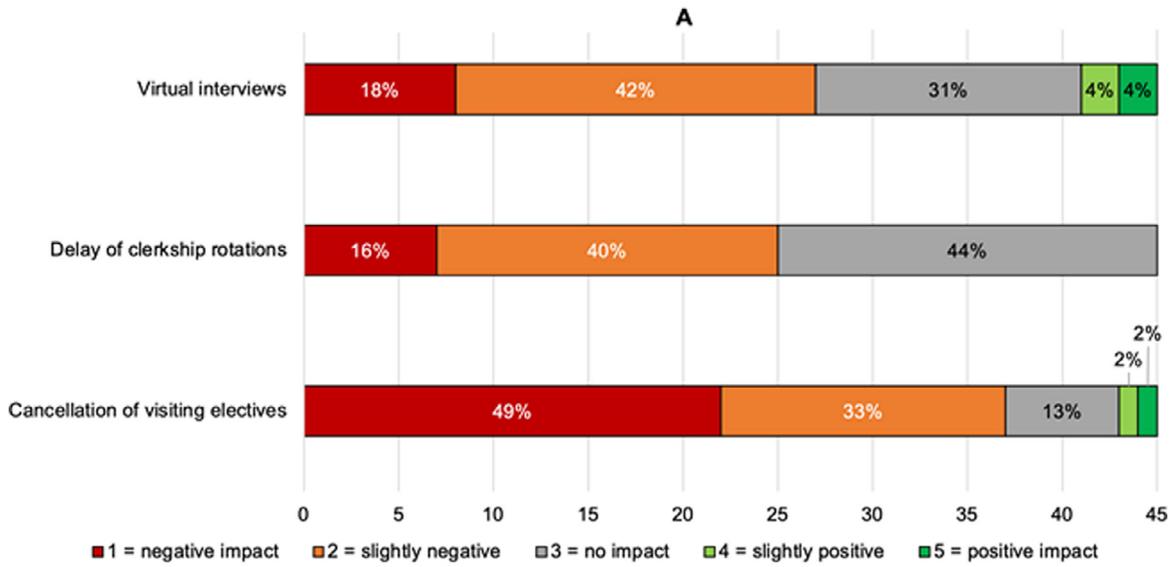


Fig. 2—Perception regarding effects of COVID-19 on 2020–2021 residency match: (A) process by residency committee selection members (N = 45); (B) program promotion by current residency program directors (N = 13).

all 15 Canadian ophthalmology programs received an invitation to complete the approved version of the survey in French or English. This email requested that the survey be forwarded to all members of their selection committees. To maximize response rate, follow-up emails were sent up to 4 times (Supplementary Material 1, available online). The survey platform was active for 6 weeks (August 12, 2020 to September 23, 2020). An adequate response rate was deemed to be at least 2 members from each residency selection committee.^{4,5}

Results

Forty-six ophthalmologists responded to the survey (12 in French and 34 in English). All 15 ophthalmology residency programs had at least 2 responses from selection committee members, including 15 program directors and 10 department chairs (Supplementary Material 2 available online).

According to respondents, the top 3 most important aspects of CaRMS in years before COVID-19 were respectively quality and (or) performance at the interview, performance during a rotation at the university where the interview was held, and at least 1 reference letter written by an ophthalmologist at any institution (Fig. 1). Pursuing ophthalmology rotations was considered important for 95.7% of respondents. The cumulative ideal total duration of ophthalmology rotations was 5 to 6 weeks (34.8%), followed by 7 to 8 weeks (30.4%), 3 to 4 weeks (21.7%), 1 to 2 weeks (6.5%), and >8 weeks (2.2%). More specifically, pursuing an ophthalmology rotation at the residency selection committee member's institution was deemed to be important by 93.5% of all respondents.

In our survey, 45 residency selection committee members rated the effects of COVID-19 on the CaRMS process. On a scale of 1 (*negative*) to 5 (*positive*), cancellation of visiting electives had a mean score of 1.76 and standard deviation (SD) of 0.93, the delay of clerkship rotations had a mean score of 2.29 and SD of 0.73, and virtual interviews was associated with a mean score of 2.36 and SD of 0.98 (Fig. 2A).

We further assessed whether current program directors were considering changes to allow all 2020 to 2021 applicants an opportunity to gain exposure to residency programs: Five (38.5%) of the current program directors were not considering any changes to their program promotion, whereas the remaining 8 (61.5%) were considering changes, as listed in Figure 2B.

Discussion

Similar to previous literature,⁶ the most important aspects of the traditional CaRMS application are related to applicant interviews, academics, and letters (personal letters and

letters of reference; Fig. 1). However, class of 2021 students are unable to do external rotations or in-person interviews. Ophthalmology rotations at their home institution may be shorter than the ideal cumulative duration of 5 to 6 weeks. Because of limited spaces, clerks are not even guaranteed an ophthalmology rotation in their home institution; thus obtaining a strong reference letter from an ophthalmologist may prove challenging.

At the time of survey collection, only 61.5% of ophthalmology program directors are considering changes to allow all 2020–2021 applicants gain some form of exposure to their program (Fig. 2B). The top 3 changes include faculty-led virtual open houses, virtual resident-only mixers, and regular updates on the program's website. We further encourage them to increase the number of opportunities (i.e., minority outreach initiatives, virtual mentorship programs, increased social media presence) to allow students to learn about their program, network with current faculty and residents, and overcome some of the challenges of the virtual 2021 match.^{7–9}

Supplementary Materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.jcjo.2020.12.007.

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References

1. The Association of Faculties of Medicine of Canada. AFMC principles and guidelines in the era of COVID-19 2020. Available from: afmc.ca/en/priorities/covid19.
2. Canadian Federation of Medical Students. The Matchbook 2020. Available from: www.cfms.org/what-we-do/education/cfms-matchbook.
3. Canadian Resident Matching Service. CaRMS R-1 Main Residency Match 2020. Available from: www.carms.ca/match/r-1-main-residency-match/
4. Nguyen DD, Lee JY, Domes T, et al. Survey of Canadian urology programs: which aspects of the Canadian Residency Matching Service (CaRMS) application are the most important? *Can Urol Assoc J* 2020;14:169–73.

5. Krauss EM, Bezuhly M, Williams JG. Selecting the best and brightest: a comparison of residency match processes in the United States and Canada. *Plast Surg (Oakv)* 2015;23:225–30.
6. Eneh AA, Jagan L, Baxter S. Relative importance of the components of the Canadian Residency Matching Service application. *Can J Ophthalmol* 2014;49:407–13.
7. The Association of Faculties of Medicine of Canada. Canadian Residency Virtual Promotion Guide 2020. Available from: afmc.ca/sites/default/files/pdf/2020-Canadian-Residency-Virtual-Promotion-Guide_en.pdf.
8. Nguyen DD, Reitblat CR, Andino JJ, et al. Virtual “match-making” without visiting electives: overview of the early U.S. experience and potential applications to the 2021 Canadian urology match [e-pub ahead of print]. *Can Urol Assoc J*. doi:10.5489/cuaj.6841. Accessed November 10, 2020.
9. The Association of Faculties of Medicine of Canada. AFMC R-1 Match 2020 Available at: afmc.ca/en/learners/r1-match.

Footnotes and Disclosure

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