

## A national survey of Canadian women in ophthalmology: on role models, mentorship, and communities of practice



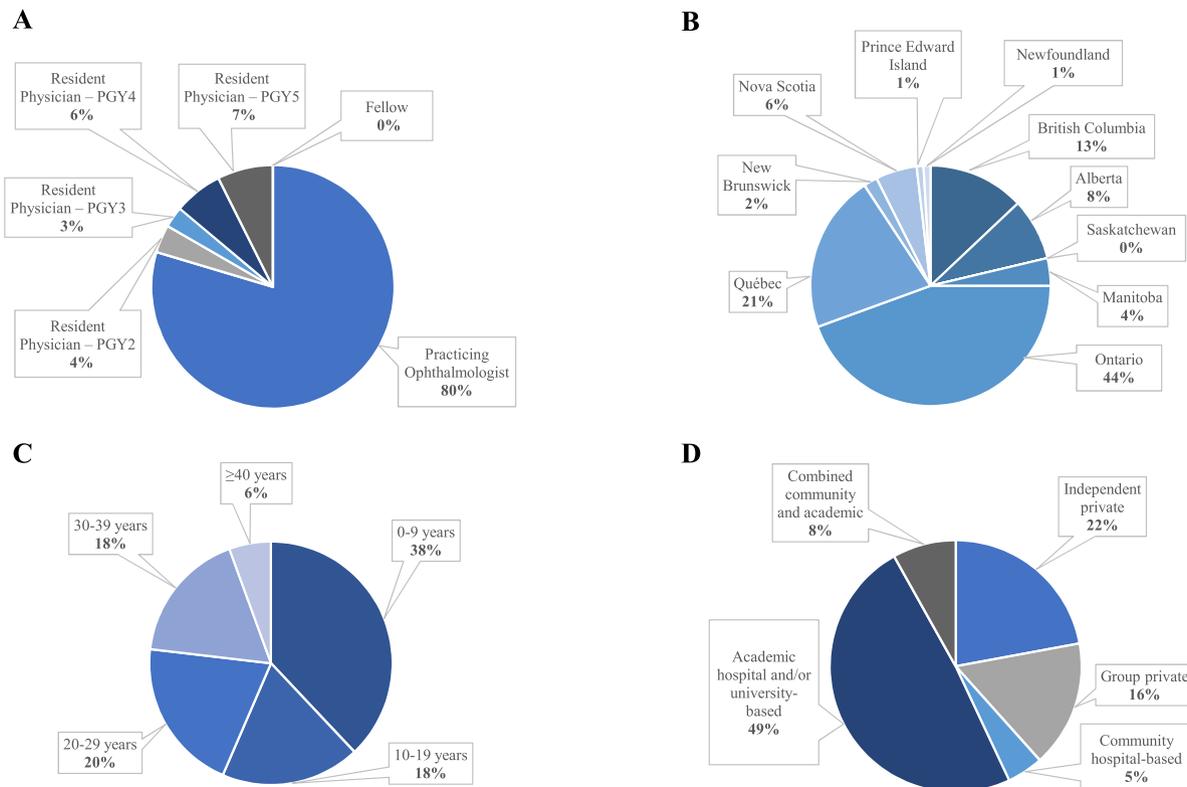
The proportion of women in ophthalmology has been increasing, from 3.1% in 1970 to 20.5% in 2011.<sup>1</sup> In 2019, there was no sex difference in the match rate to Canadian ophthalmology residency, yet female matriculants accounted for only 35% due to fewer applicants.<sup>2</sup> The leaky pipeline of academic medicine persists, with fewer women attaining leadership positions.<sup>3</sup> This perpetuates a cycle whereby fewer women serve as role models and mentors, with a downstream impact on female medical trainees.

This cross-sectional survey aimed to understand the experiences of Canadian female ophthalmologists with role models, mentorship, and communities of practice. The Canadian Ophthalmological Society (COS) emailed the anonymous, voluntary survey (English and French) to members identifying as female residents, fellows, and practicing ophthalmologists. The 39 questions included demographics and scaled questions (5-point Likert), with median used for central tendency. The survey was distributed in September

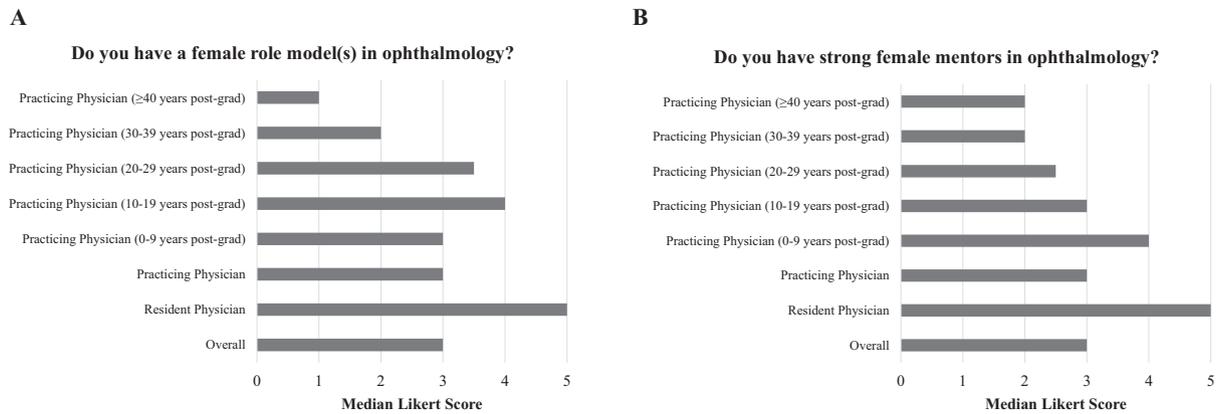
2018 and closed after 8 weeks, with a reminder before closure. The study followed the Declaration of Helsinki, and ethics approval was obtained from the University of Toronto (UofT).

Response rate was 33% (108 respondents of 325 invitees), with 85% completed in English. The majority of respondents were practicing ophthalmologists (Fig. 1A), and the most common location was Ontario (Fig. 1B). Years since respondents' medical graduation are shown in Figure 1C. Ninety percent worked over 30 hours/week, and 38% over 50 hours/week. Nearly half of ophthalmologists had academic practices (Fig. 1D), the majority (86%) had university appointments and contributed to postgraduate education, and 59% held leadership positions. Compared with a 2014 survey, more female ophthalmologists achieved professor ranking (14% vs 6%) and fellowship training (69% vs 53%).<sup>4</sup> Most were married (78%) and had 1 or more children (71%), with timing of their first child frequently following training completion (60%).

Although residents strongly agreed that they had female ophthalmology role models and mentors, ophthalmologists were overall neutral, but those in late-career disagreed (Fig. 2). Respondents disagreed that female role models had



**Fig. 1—Respondent demographics. (A) Distribution by current position/level. The majority were practicing ophthalmologists. (B) Distribution by current practice/training location. This was most commonly Ontario, followed by Québec. All provinces were represented, except for Saskatchewan. (C) Distribution by time (years) since graduation from medical school. (D) The current practice type of staff ophthalmologists. Approximately half had academic hospital and/or university-based practices. Community-hospital-based was the least common practice type.**



**Fig. 2—Median Likert scores for resident physicians and practicing ophthalmologists by career stage. (A) In response to “Do you have a female role model(s) in ophthalmology?” residents strongly agreed, whereas ophthalmologists were overall neutral, and those in late-career disagreed. (B) In response to “Do you have strong female mentors in ophthalmology?” residents strongly agreed, whereas ophthalmologists were overall neutral, and those in late-career disagreed.**

influenced their career decisions (Supplementary Table 1, available online). However, 69% strongly agreed/agreed that female ophthalmologists at similar career stages have supportive relationships. Seventy-three percent strongly agreed/agreed that they are supportive role models. Whereas ophthalmologists reported difficulty finding female mentors, residents did not. Sixty-nine percent reported lack of a formal women in ophthalmology mentorship program. Respondents felt supported by female colleagues but disagreed that female ophthalmologists have an open communication platform. Twenty-one percent strongly agreed/agreed, 37% were neutral, and 42% disagreed/strongly disagreed that maternity leave decisions were positively influenced by female colleagues.

The shine theory by Sow and Friedman emphasizes that when a woman invests in other strong women, she shines and inspires others to do the same.<sup>5</sup> Our study suggests that Canadian ophthalmology residency training fosters opportunities for female mentorship, yet mentorship is needed at all career stages. The UofT Summit for Women in Academic Medicine, Canadian Women in Medicine conference, and UofT Women Residents in Ophthalmology curriculum are recent initiatives promoting work-life balance and sex gap discussions. The COS has also invested in supporting women in ophthalmology (WIO) through its leadership, as well as the Annual Meeting’s WIO symposium and breakfast curriculum development initiatives. Strategies to improve mentorship include training workshops, cross-institutional expansion of mentor pools, formalized programs with clear guidelines, and combined vertical and facilitated peer mentoring.<sup>6–9</sup> A national program combining mentorship strategies, with protected time for mentor involvement, may best serve our diverse group. Female ophthalmologists disagreed that they have a platform for discussing personal and professional development. Although the Women in Ophthalmology association has an international listserv, a focused Canadian forum may fill this gap.

Although the COVID-19 pandemic is a time of unprecedented global uncertainty, our Canadian chief medical officers, 7 of 14 of whom are female, have stepped up to this challenge with both intellectual rigour and fierce compassion. Such leadership of women on the national stage may encourage more Canadian women ophthalmologists to pursue leadership positions and thus lessen this sex gap in medicine.

### Supplementary Materials

Supplementary material associated with this article can be found in the online version at [doi:10.1016/j.cjjo.2020.10.004](https://doi.org/10.1016/j.cjjo.2020.10.004).

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### Footnotes and Disclosure

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The authors have no proprietary or commercial interest in any materials discussed in this article.