



A call to action: gender equity in Canadian anesthesiology

Miriam Mottiar, MD, MHSc, FRCPC · Jason McVicar, MD, FRCPC

Received: 11 December 2018 / Revised: 22 December 2018 / Accepted: 23 December 2018 / Published online: 3 April 2019
© Canadian Anesthesiologists' Society 2019

In recent years, our society has increasingly confronted inequities faced by members of marginalized and disempowered groups. Gender bias has become an important topic of conversation and of academic discourse and research. Despite relevant literature dating back many years, medicine in Canada has only recently started to examine how gender bias has impacted our profession, clinical care, and research agenda. Thus far, the Canadian anesthesiology community has engaged very little in the much-needed introspection on gender bias—something that needs to change.

The Canadian anesthesiology landscape continues to be very male. In 2018, one third of practising anesthesiologists were female,¹ despite women making up 42% of all Canadian physicians.² Women have made up at least half of Canadian medical students since 1999 but currently only 38% of anesthesiology postgraduate residency trainees are female.³ In Canadian academic departments of anesthesiology, women comprise only 18% of all full professors, 27% of associate professors, 33% of assistant professors, and 49% of instructors (personal communication K. Kassim, Association of Faculties of Medicine of Canada; November, 2018). Currently, only two of 17 chairs (12%) of academic departments of Anesthesiology are female and all of the 2018 Canadian Anesthesiologists' Society (CAS) Honour Award Recipients were male.⁴ Only one of the five members of the current CAS executive is female, and in the 75-year history of the CAS, only three women have served as president. The editorial board of the *Canadian Journal of Anesthesia* currently has only five women (21%) out of its 24 members.

These statistics paint a stark, gender-biased picture. The research on gender inequities in medicine is equally bleak. Women are subject to gender bias in recruitment to male-dominated careers and are less likely to be hired than their equivalent male counterparts.⁵ Women are less likely than men to receive awards or academic promotions⁶ and are similarly less likely to receive research funding.⁷ Recent literature also demonstrates that women are published in anesthesiology journals at a disproportionately lower rate relative to their presence in the profession.⁸ Despite a long presence in anesthesiology, women are less likely to assume senior leadership positions,⁹ more likely to be mistaken for other allied health professionals, and are significantly less likely to be introduced with the honorific prefix “doctor” (e.g., when speaking at grand rounds) than their male counterparts.¹⁰

Women's important contributions to medicine speak for themselves, but have failed to result in proportional representation. Female physicians are more likely to engage in patient centred communication and provide more psychosocial counselling.¹¹ They are more likely to follow guidelines¹² and provide preventative care.¹³ Partially as a result of these differences in practise patterns, female physicians are reported to have lower mortality and readmission rates.¹⁴

We can no longer passively wait for the status quo to change within Canadian anesthesiology. To ensure sustainable change within our profession, we must start with anesthesiology training. There is a dearth of research on what deters or attracts women to anesthesiology; this research needs to be carried out, with deterrents identified and addressed. Provision of a gender-matched mentor should be accommodated if possible, as we know that female residents are more likely than males to prefer a female mentor.¹⁵ Anesthesiology training programs need to ensure a lack of gender bias in their selection, evaluation, and promotion processes, and we need to ensure that the culture within the residency programs is open and free from discrimination or harassment.

Nationally, the CAS intends to establish a working group on diversity, equity, and inclusivity. The working

M. Mottiar, MD, MHSc, FRCPC (✉)
Department of Anesthesiology & Pain Medicine & Division of Palliative Medicine, Department of Medicine, The Ottawa Hospital, University of Ottawa, Ottawa, Canada
e-mail: mmottiar@toh.ca

J. McVicar, MD, FRCPC
Department of Anesthesiology & Pain Medicine, The Ottawa Hospital, University of Ottawa, Ottawa, Canada

group in its current form is meant to be time limited; nevertheless, the CAS should instead consider establishing a standing committee devoted to ensuring gender-balanced representation in our specialty. This committee could help ensure a balance in the membership of CAS committees, committee leadership, CAS executives, and award winners. This standing committee must also better balance the gender of speakers at the annual meeting to avoid panels that are overwhelmingly male (so-called, “manels”).¹⁶ The committee could also act as a resource to support local continuing professional development programs in achieving gender equity.

Closer to home, departments of anesthesiology have an obligation to ensure proportional representation at all levels of leadership. Mentorship is certainly important in fostering leadership interests and skills in all anesthesiologists,¹⁷ including women, but is not enough to overcome the profound gender diversity deficit that currently exists. Women are often perceived as being less likely to aspire to leadership positions because of family and childcare obligations. Even women without children suffer bias because female gender is often linked to a desire to have children.¹⁸ Our organizations, institutions, departments, and research collaborations need to embrace the opportunity to change. There should be no implicit assumption that women do not wish to assume leadership roles. Qualified and interested women need to apply for leadership positions and selection committees need to include, at a minimum, a proportional number of women. Selection criteria also need to be unbiased so as to avoid advantaging one gender over another. Departments ought to ensure greater gender diversity in their own speaker programs and departments of anesthesiology should also consider creating a director position to oversee gender diversity.

Confronting and remedying gender bias is not just the provenance of women. Men within Canadian anesthesiology should have an interest in a gender-diverse work force and should act as allies in overcoming the hurdles identified here. An effective ally is perceptive to bias and uses their privilege to shine light on inequities even when it is inconvenient or uncomfortable. If anesthesiologists of all genders work together to improve gender diversity on all fronts we will be much more successful in effecting change and achieving parity within our specialty. With deliberate effort, we can make important strides towards gender parity within the Canadian anesthesiology community and our specialty will be richer for it.

Conflicts of interest None declared.

Editorial responsibility This submission was handled by Dr. Hilary P. Grocott, Editor-in-Chief, *Canadian Journal of Anesthesia*.

Funding No funding was involved in the production of this submission.

References

1. *Canadian Medical Association*. Anesthesiology profile - 2018. Available from URL: <https://legacy.cma.ca/Assets/assets-library/document/en/advocacy/profiles/anesthesiology-e.pdf> (accessed January 2019).
2. *Canadian Medical Association*. CMA Masterfile – 2018. Available from URL: <https://www.cma.ca/Assets/assets-library/document/en/advocacy/05-age-sex-prv.pdf> (accessed January 2019).
3. *Canadian Post-M.D. Education Registry*. Annual census of post-M.D. trainees – 2017-2018. Available from URL: https://caper.ca/~assets/documents/2017-18-annual-census_en.pdf (accessed January 2019).
4. Mottiar M. Because its 2018: women in Canadian anesthesiology. *Can J Anesth* 2018; 65: 953-4.
5. Koch AJ, D’Mello SD, Sackett PR. A meta-analysis of gender stereotypes and bias in experimental simulations of employment decision making. *J Appl Psychol* 2015; 100: 128-61.
6. Jena AB, Khullar D, Ho O, Olenski AR, Blumenthal DM. Sex differences in academic rank in US medical schools in 2014. *JAMA* 2015; 314: 1149-58.
7. van der Lee R, Ellemers N. Gender contributes to personal research funding success in The Netherlands. *Proc Natl Acad Sci USA* 2015; 112: 12349-53.
8. Miller J, Chuba E, Deiner S, DeMaria S Jr, Katz D. Trends in authorship in anesthesiology journals. *Anesth Analg* 2018; DOI: <https://doi.org/10.1213/ane.0000000000003949>.
9. Bissing MA, Lange EM, Davila WF, et al. Status of women in academic anesthesiology: a 10-year update. *Anesth Analg* 2018; DOI: <https://doi.org/10.1213/ane.0000000000003691>.
10. Files JA, Mayer AP, Ko MG, et al. Speaker introductions at internal medicine grand rounds: forms of address reveal gender bias. *J Womens Health (Larchmt)* 2017; 26: 413-9.
11. Roter DL, Hall JA. Physician gender and patient-centered communication: a critical review of empirical research. *Annu Rev Public Health* 2004; 25: 497-519.
12. Baumhäkel M, Müller U, Böhm M. Influence of gender of physicians and patients on guideline-recommended treatment of chronic heart failure in a cross-sectional study. *Eur J Heart Fail* 2009; 11: 299-303.
13. Lurie N, Slater J, McGovern P, Ekstrum J, Quam L, Margolis K. Preventive care for women: does the sex of the physician matter? *N Engl J Med* 1993; 329: 478-82.
14. Tsugawa Y, Jena AB, Figueroa JF, Orav EJ, Blumenthal DM, Jha AK. Comparison of hospital mortality and readmission rates for medicare patients treated by male vs female physicians. *JAMA Intern Med* 2017; 177: 206-13.
15. Plyley T, Cory J, Lorello GR, Flexman AM. A survey of mentor gender preferences amongst anesthesiology residents at the University of British Columbia. *Can J Anesth* 2018; DOI: <https://doi.org/10.1007/s12630-018-1260-6>.
16. Sarma, S. Congrats, you have an all male panel! Available from URL: <http://allmalepanels.tumblr.com/> (accessed January 2019).
17. Flexman AM, Gelb AW. Mentorship in anesthesia. *Curr Opin Anaesthesiol* 2011; 24: 676-81.
18. Dossa F, Baxter NN. Reducing gender bias in surgery. *Br J Surg* 2018; 105: 1707-9.

Publisher’s Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.