In reply: Anesthesia research training: preparing for the future of our specialty

James S. Khan, MD · Abhinav Sharma, MD

Received: 6 January 2016 / Accepted: 12 January 2016 / Published online: 21 January 2016
© Canadian Anesthesiologists' Society 2016

We thank Drs Avramescu and Orser for their insightful comments in regard to our study¹ and the current state of academic anesthesiology training.² We agree with the interpretation that a “disconnect” exists among anesthesia residents regarding training expectations and career aspirations to pursue research in the future. Formal research training not only provides a deeper understanding of scientific principles and methodologies, it allows one to become successful. A United States (US) study of academic anesthesiologists indicated that those with only an MD degree had less chance of publishing (odds ratio 0.45; 95% confidence interval, 0.32 to 0.65) than those with MD/PhD degrees.³ Although only 15% of anesthesia faculty positions are held by those with MD/PhD or PhD degrees, they are responsible for 51% of all publications.³

A variety of factors are involved in creating this “disconnect,” including a lack of understanding of what research entails. This suggestion may seem in contrast to our finding that 69% of residents were involved in a research project during their residency. Our personal experience, however, is that residents usually play a limited role in any such research project (i.e., performing the literature search or chart review) without an appreciation of the project in its entirety. They are not always aware of the “behind-the-scene” tasks, which are usually performed by the principal

investigators. Dedicated time and funding are certainly constraints, but involving a resident in various stages of a project - from idea generation to knowledge dissemination - would be a more enriching research experience that could provide residents with a more accurate view of what research requires.

During the years 1997-2001, Canadian anesthesiologists were responsible for approximately 5.5% of the publications on anesthesiology worldwide, with a decreasing trend over the years. The US was responsible for 24.4%.⁴ With the end of the Canadian Institutes of Health Research MD/PhD program, limited Clinician Investigator Program positions, and research funding becoming increasingly competitive, residency programs need to develop novel protocols and initiatives if they want to encourage the development of future leaders of anesthesia research in Canada.

Conflicts of interest None declared.

References

1. Khan J, Gilbert J, Sharma A, LeManach Y, Yee D. Perspectives of anesthesia residents training in Canada on fellowship training, research, and future practice location. *Can J Anesth* 2015; 62: 956-63.
2. Avramescu S, Orser BA. Anesthesia research training: preparing for the future of our specialty. *Can J Anesth* 2016; 63: this issue. DOI:10.1007/s12630-016-0592-3.
3. Hurley RW, Zhao K, Tighe PJ, Ko PS, Pronovost PJ, Wu CL. Examination of publications from academic anesthesiology faculty in the United States. *Anesth Analg* 2014; 118: 192-9.
4. Figueredo E, Sanchez Perales G, Muoz Blanco F. International publishing in anaesthesia – how do different countries contribute? *Acta Anaesthesiol Scand* 2003; 47: 378-82.

J. S. Khan, MD (✉)
Department of Anesthesia, University of Toronto, Toronto,
ON, Canada
e-mail: james.khan@medportal.ca

A. Sharma, MD
Duke Clinical Research Institute, Duke University, Durham,
NC, USA