

LETTER TO THE EDITOR

Exposure matters: what radiation oncology can teach us about career exploration in medical education

Gregory W Chai,¹  Jane Jomy²

*Author information is provided in the back matter of this manuscript

L'importance de l'expérience : ce que la radio-oncologie peut nous apprendre sur l'orientation professionnelle dans la formation médicale

Dear Editor,

We expect medical students to make informed career decisions, but exposure to medical specialties is uneven. Some fields are encountered repeatedly through lectures, clerkship rotations, and ward-based teaching, while others remain invisible unless students seek them out. Radiation oncology is one example. A recent survey found that although 96% of participants viewed radiation oncology as an important component of cancer care, 62% of respondents felt it was underrepresented in the medical curriculum.¹ Specifically in the United States, a lack of formal exposure has been cited for its decline in residency applicants.²

Many frame these findings as a recruitment problem, but we believe they point to something

broader. In our opinion, radiation oncology highlights a challenge in medical education where students choose from the portion of medicine they happen to see rather than the entirety of medicine.

Like many medical students, we assumed career exploration would occur naturally throughout training. But from our own experience and that of our classmates, we believe specialty interests more often emerge through exposure than through deliberate comparison. We become interested in fields because we happen to meet an inspiring resident, spend time on a memorable service, or admire an attending's career. Personal experience should shape specialty choice, but some specialties provide these encounters while others rarely do. We saw this with radiation oncology, many of our classmates struggled to explain what a radiation oncology

© CHAI, JOMY



gist does, and some confused it with diagnostic radiology. We believe this reflects a lack of exposure rather than a lack of interest, because until we pursued research in the field, it described us too.

An incidental research project changed our understanding of the specialty. Before spending time in the field, we pictured it as highly technical work with limited patient contact. Instead, we found a discipline built on sustained relationships: physicians guiding patients through difficult decisions and supporting them across weeks of treatment. Our misconceptions survived because we had never tested them. When students do not encounter a field directly, we fall back on second-hand impressions, and radiation oncology becomes a specialty of machines rather than patients. Students reduce entire fields to simplified descriptions because they rarely see the realities behind them.

We believe that this issue extends beyond recruitment into any single specialty. Medical education should help students understand the breadth of the profession they are entering, which gives exposure educational value independent of career choice. Whatever specialty we ultimately pursue, many of us will care for patients who have received radiotherapy, discuss treatment options, or collaborate with radiation oncologists on multidisciplinary teams.

Medical schools cannot offer extensive experiences in every specialty, but we maintain that they should create opportunities for students to encounter less visible disciplines and should be considered part of the educational mission. We have noticed that brief experiences such as specialty panels and mandatory clinic observation can broaden understanding and challenge assumptions without requiring a dedicated rotation. We believe building such exposure into the curriculum would also strengthen the interdisciplinary collaboration essential to radiation oncology and reflect the multidisciplinary nature of medicine in general.

Radiation oncology is not the only specialty we have observed with this problem, but it is a clear example. Students can only seriously consider the pos-

sibilities they know exist and can only understand the specialties they have had the opportunity to encounter. Our research experience changed less about how we viewed radiation oncology than about how we understand career exploration itself. We do not choose among all specialties equally, but instead we choose among the specialties that become visible to us during training. We conclude that if medical education aims to support informed career decisions, we cannot treat exposure as an incidental by-product of training. Career choices should be made from a comprehensive understanding of the options available, rather than from the subset of medicine that happened to cross a student's path.

Author information:

1- Temerty Faculty of Medicine, University of Toronto, Ontario, Canada

2- Department of Radiation Oncology, University of Toronto, Ontario, Canada

Correspondence to:

Gregory W. Chai

Email: gregory.chai@mail.utoronto.ca

Published ahead of issue:

Sept 8, 2026

© 2026 CHAI, JOMY; licensee Synergies Partners. This is an Open Journal Systems article distributed under the terms of the Creative Commons Attribution License. (<https://creativecommons.org/licenses/by-nc-nd/4.0>) which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is cited.

Conflict of Interest:

The authors have no competing interests to declare.

Funding:

None.

References

1. Dapper H, Oertel M, Vorwerk H, et al. Shaping the future of radiation oncology education: results of a nationwide student survey from Germany. *Strahlenther Onkol*. 2026 Jan 7. <https://doi.org/10.1007/s00066-025-02493-x>
2. Amini A, Luh JY, Bush A, Rosenthal SA. Radiation Oncology Workforce: Supply and Demand. *J Amer College Radiol*. 2024 Jul 1;21(7):1141–4. <https://doi.org/10.1016/j.jacr.2024.01.009>