

The importance of specialty experiences for Canadian medical student career exploration

L'importance d'une expérience pratique en médecine spécialisée dans l'exploration des choix de carrière pour les étudiants au Canada

Bright Huo,¹ Wyatt MacNevin¹

¹Faculty of Medicine, Dalhousie University, Nova Scotia, Canada

Correspondence to: Bright Huo, Dalhousie Faculty of Medicine, 5849 University Ave, Halifax, Nova Scotia, Canada, B3H 4R2; phone 902-448-6836; email: brighthuo@dal.ca

Published ahead of issue: October 25, 2021; published: November 1, 2021. CMEJ 2021, 12(5). Available at <http://www.cmej.ca>

© 2021 Huo, MacNevin; licensee Synergies Partners

<https://doi.org/10.36834/cmej.70749>. 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.

Clinical experience in pre-clerkship training improves medical student knowledge of different specialties and aids in the career decision-making process.¹ Most commonly, pre-clerkship clinical training occurs in either the elective or observership setting. Electives provide students with weekly, protected time in their academic schedules to explore a medical or surgical specialty of their choice. Observerships differ from electives as they are optional, scheduled independently by students, are of variable duration rather than term-long, and provide students with specialties of their choosing without direct hands-on experience. However, the degree and timing of both electives and observerships in pre-clerkship curricula are inconsistent across Canadian medical schools. Furthermore, the increasing competitiveness of residency positions and the limited number of specialties experienced in clerkship leave students struggling to make an informed decision about specialty choice.² Medical schools have an opportunity to play a more active role in increasing early specialty experiences in pre-clerkship training. Difficulties arise however, when the onus falls on students to seek these specialty experiences in the pre-clerkship years through observerships.

To explore specialties in pre-clerkship years, students must independently recruit potential preceptors, often with varying degrees of success. To complicate things further, these experiences must fit within their demanding academic schedules, which may not align with the clinical

schedule of potential preceptors. Additionally, some students do not have pre-existing professional and personal connections with physicians, placing them at a distinct disadvantage. The organization process for observerships can also be incredibly cumbersome, often resulting in lengthy delays before students receive approval from their undergraduate medical education office. With these shortcomings, students may be pressured to pursue clinical experiences based on preceptor availability rather than for career navigation purposes.

To address these barriers to medical student specialty exploration, we provide the following suggestions. First, structured elective experiences in pre-clerkship should be adopted by Canadian medical schools for the purpose of early career exploration. Electives should maintain the format of the choice of one discipline per semester, at minimum during the second year of pre-clerkship training. Second, all schools should streamline observership processes to support the timely delivery of decisions surrounding observership proposals. Third, medical schools should offer students the option to pursue summer elective experiences in pre-clerkship to take advantage of time outside of the packed academic calendar. These summer electives should be omitted from the CaRMS application process to avoid inequities for those students who are unable to pursue electives during the summer. Fourth, undergraduate medical schools should promote

exploratory elective programs such as the Pre-clerkship Residency Exploration Program (PREP) and the Surgical Education and Discovery (SEAD) program, created in 2018 and 2012, respectively.

These student-led programs enable pre-clerkship students to explore eight surgical specialties (SEAD) and 14 medical specialties (PREP) during the summer.^{3,4} Both PREP and SEAD are two-week elective programs enabling medical students to experience a variety of specialties in medicine, which are tailored to their preference. Students also receive simulation training, procedural skills workshops, and career talks. These programs exert a positive impact on career planning, with many students reporting changed specialty interests and career goals after participating.^{4,5}

While we encourage opportunities for medical students to learn more about specialties they might wish to pursue, we don't want to overlook the potential challenges that can arise through student driven initiatives. The most obvious being that student organizers are often inadequately equipped to bear the organizational and administrative work required to coordinate such programming. The planning of these types of events often occurs throughout the academic year, creating a heavy burden for student organizers to carry on top of their academic workload. Therefore, Canadian undergraduate medical programs are encouraged to support engaged students in the creation and sustainability of these programs at their institution by providing them with the resources needed to overcome these logistical challenges.

Another drawback is that these exploratory elective programs are of limited duration and take place in the summer, which places students at a disadvantage if they are not able to pursue clinical experiences during the summer for personal reasons. Our last suggestion then, is for Canadian medical schools to integrate a mandatory rotating elective experience into the first-year curriculum of pre-clerkship training. Students would participate in a longitudinal rotating elective in a combination of medical and surgical specialties based on student interest, over the academic year. The purpose would be to bolster career exploration in a range of specialties early on in pre-clerkship training, enabling students to make more purposeful choices when selecting a specialty for their

second-year electives. With earlier and more diverse experiences in a variety of medical and surgical specialties, students will be more prepared for choosing a residency training program they will genuinely enjoy.

While these recommendations require a considerable investment of administrative, financial, and human resources, we surmise that the improved specialty exploration and resulting career satisfaction is worth the cost. Early student career exploration is imperative, and if medical schools use their organizational resources to arrange these clinical experiences for students, Canadian medical students will be able to efficiently explore more specialties and pursue careers in fields that best align with their interests and skill set.

Authorship: Both authors contributed equally to this work.

Conflicts of Interest: The authors declare no conflict of interest related to this work.

Funding: This commentary was unfunded.

Acknowledgements: The authors would like to thank Dr. Thomas Arnason for his feedback, guidance, and unwavering support in the development of this commentary.

References

1. Pianosi K, Bethune C, Hurley KF. Medical student career choice: a qualitative study of fourth-year medical students at Memorial University, Newfoundland. *C Open*. 2016;4(2):E147–52. <https://doi:10.9778/cmajo.20150103>
2. Naik VN. Pre-clerkship teaching: are we missing an opportunity? *Can J Anesth*. 2017;64(1):6–9. <http://doi:10.1007/s12630-016-0763-2>
3. Smyth M, Toguri JT, Dow T, Haupt TS, Roberts A, Raju K. Medical student exposure to anesthesiology through the pre-clerkship residency exploration program: impact on career interest and understanding of anesthesiology. *Can J Anesth*. 2019;66(9):1126–8. Available from: <https://doi.org/10.1007/s12630-019-01403-x>
4. Gawad N, Moussa F, Christakis GT, Rutka JT. Planting the “SEAD”: early comprehensive exposure to surgery for medical students. *J Surg Educ*. 2013;70(4):487–94. <http://dx.doi.org/10.1016/j.jsurg.2013.03.006>