

Letter to the editor in response to: “Research as a University of Manitoba medical student: a crash course”

Anthony Wightman BA (Hons), BSc[†]

Keywords: critical literacy; research; pre-clerkship; non-traditional

Conflict of Interest Statement: None to declare.

I enjoyed Lourens Jacobs’ and Janessa Siemens’ piece “Research as a University of Manitoba medical student: a crash course”. It lists strong reasons for why and how students can get involved in research at the University of Manitoba. I think it is also important to discuss the issues that imperil research and make it less accessible. These relate to the goals of research, the ability to conduct research, and who conducts research.

“Research as a University of Manitoba medical student” concludes by stating that “involvement in research is likely quite beneficial to the general education of an undergraduate medical student,” which is true.¹ It is also true that, as the Canadian Resident Matching Service (CaRMS) process becomes more competitive, many medical students pursue research due to its presumed necessity for matching success, especially in competitive fields with limited clinical exposure.^{2,3} Increasing research engagement may intensify competition for spots, imperiling opportunities for students who are initially unsure about specialties, or who come from non-science backgrounds.

Jacobs and Siemens raise a strong point, that “it is important for medical students to be able to think critically,” whether students conduct research for their own education or to increase their CaRMS competitiveness.¹ It is difficult to learn critical literacy in an accelerated environment with little experience. This is a subject that medical schools “hardly teach” and it decreases as students move through medical school.^{4,5} When students who conduct research intend to gather data, write, present, and publish in two years, their ability to critically evaluate data is tested. This is compounded by the frequentist approach to statistical inference, in addition to publication bias, both of which can reduce studies’ reproducibility.^{4,6} To address this, pre-clerkship committees should assess the effectiveness and accessibility of current research literacy courses for medical students. The Department of Psychiatry’s Research Summer School is an example of one such course at the University of Manitoba.

Differences in critical research skills may be com-

pounded by changing pre-medical student demographics. Medical schools are becoming more accessible to non-science students and students from underrepresented backgrounds as seats are allotted and prerequisites are removed.⁷ Jacobs and Siemens note that “the Scholarly Activities and Research Experience section of the Canadian Residency Matching System (CaRMS) residency application [considers] paid or unpaid work”, and that students can raise questions with “physicians they already know.”¹ However, many underrepresented students come from socioeconomically vulnerable backgrounds. It is therefore harder for them to gain unpaid research experience prior to medical school when they may not know many medical doctors and may have to financially support themselves.⁸ It may also be more challenging for these students to conduct research in their medical school years due to financial and social constraints, such as supporting family members or working in addition to school.

Research is beneficial for medical students, whether for their own education or to increase competitiveness for residency. All students deserve this opportunity and should be encouraged to do research while being supported to develop their critical literacy. Students from non-science and underrepresented backgrounds should be intentionally supported so that they can take advantage of the opportunity that research provides.

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*Correspondence to: wightmaa@myumanitoba.ca

[†]Max Rady College of Medicine, University of Manitoba

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