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Un modèle d'admission axé sur l'équité pour le recrutement des étudiants autochtones

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Résumé de l'article

Background: Depuis la publication en 2015 d'un appel à l'action de la Commission de vérité et réconciliation du Canada, les établissements de formation en sciences de la santé sont à la recherche de moyens d'accroître le recrutement et la réussite des apprenants autochtones. Les efforts visant à diversifier le bassin d'apprenant sont longtemps été axés sur la mise en place de quotas pour les étudiants issus de communautés mal desservies, mais de telles approches entraînent des choix difficiles quant au démantèlement approprié des obstacles structurels à la formation professionnelle dans le domaine de la santé. Les leçons tirées de l'élaboration d'une stratégie d'admission à plusieurs niveaux montrent l'importance de l'équité – plutôt que de l'égalité – dans tout recrutement d'apprenants issus de communautés défavorisées.

Corps du texte : La promotion de l'équité dans le recrutement des futurs praticiens va bien au-delà de la garantie d'un accès égal, dans ce cas, à l'école de médecine; elle passe par la reconnaissance des mécanismes sociaux et structurels plus larges qui donnent aux membres des couches dominantes de la société un accès privilégié à la profession médicale. Cette reconnaissance exige de ne plus se contenter de donner aux personnes défavorisées un meilleur accès à un système injuste, mais à mettre en place des outils permettant de s'attaquer aux problématiques sous-jacentes liées au type d'excellence attendu des candidats, à la manière dont elle doit être mesurée et à la contribution que ces recrues peuvent apporter à l'amélioration des soins pour les communautés dont elles sont issues.

Conclusion : Les approches fondées sur l'équité permettent aux écoles professionnelles de santé de dépasser le dilemme du recrutement d'étudiants issus de milieux marginalisés qui se trouvent être les plus semblables à la population étudiante dominante. Pour y parvenir, il faut adopter une vision complexe de la population cible et reconnaître que les désavantages sont vécus de nombreuses manières différentes, qu'il y a tout un éventail d'obstacles à l'accès, et, enfin, que l'équité ne sera pas établie tant qu'on n'aura pas intégré une approche critique et socialement consciente à l'ensemble des pratiques institutionnelles.

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An equity-oriented admissions model for Indigenous student recruitment in an undergraduate medical education program Un modèle d'admission axé sur l'équité pour le recrutement des étudiants autochtones

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Abstract

Background: With the 2015 publication of the Truth and Reconciliation Commission of Canada's calls to action, health professional schools are left grappling with how to increase the recruitment and success of Indigenous learners. Efforts to diversify trainee pools have long looked to quota-based approaches to recruit students from underserved communities, though such approaches pose dilemmas around meaningfully dismantling structural barriers to health professional education. Lessons shared here from developing one multi-layered admissions strategy highlight the importance of equity—rather than equality—in any recruitment for learners from medically underserved communities.

Summary: The promotion of fairness in the recruitment of future practitioners is not just a question of equalizing access to, in this case, medical school; it involves recognizing the wider social and structural mechanisms that enable privileged access to the medical profession by members of dominant society. This recognition compels a shift in focus beyond merely giving the disadvantaged increased access to an unfair system, towards building tools to address deeper questions about what is meant by the kind of excellence expected of applicants, how it is to be measured, and to what extent these recruits may contribute to improved care for the communities from which they come.

Conclusion: Equity-based approaches to student recruitment move health professional schools beyond the dilemma of recruiting students from marginalized backgrounds who happen to be most similar to the dominant student population. Achieving this requires a complex view of the target population, recognizing that disadvantage is experienced in many diverse ways, that barriers are encountered along a spectrum of access, and that equity may only emerge when a critically, socially conscious approach is embedded throughout institutional practices.

Résumé

Background: Depuis la publication en 2015 d'un appel à l'action de la Commission de vérité et réconciliation du Canada, les établissements de formation en sciences de la santé sont à la recherche de moyens d'accroître le recrutement et la réussite des apprenants autochtones. Les efforts visant à diversifier le bassin d'apprenant ont longtemps été axés sur la mise en place de quotas pour les étudiants issus de communautés mal desservies, mais de telles approches entraînent des choix difficiles quant au démantèlement approprié des obstacles structurels à la formation professionnelle dans le domaine de la santé. Les leçons tirées de l'élaboration d'une stratégie d'admission à plusieurs niveaux montrent l'importance de l'équité – plutôt que de l'égalité – dans tout recrutement d'apprenants issus de communautés défavorisées.

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Introduction

Canada's 2015 Truth and Reconciliation Commission (TRC)¹ includes a call to action for critical medical school admissions criteria to boost physician diversity. Call 23 of 94 charges health systems, in which medical schools play a key role, to increase recruitment and retention of Indigenous professionals. This encompasses First Nations, Inuit and Métis people from urban centers and remote communities alike. Experiences from the University of Calgary's Cumming School of Medicine's admissions committee (CSM AC) on Indigenous initiatives highlight that important impacts can be achieved with purposeful, critically-informed reorientation of priorities.

Background: The blunt instrument of admissions quotas
Medical schools across the globe have introduced policies to increase recruitment of trainees from underrepresented communities^{2,3} to reflect the society that future physicians will serve.⁴ However, medical schools aspiring to diversify their student bodies have been criticized for paying attention only to elements of diversity easily discernable to the eye, such as race and gender. It appears they fail to recognize the less visible and more abstract aspects of diversity such as different world views which arise from intersectionality of, for example, age, class, and ethnicity, that are not typically represented in the medical profession.⁵

As a framework for transformation, Browne argues that equity-oriented services within Indigenous primary health care have the following four dimensions. They must be contextually tailored, culturally safe, trauma/violence informed, and inequity responsive. While proposed as approaches for effective clinical care with Indigenous peoples, they are also critical to consider for Indigenous inclusion within medical education. They provide a framework within which to consider change and evaluate it.⁶

Quotas for admitting students from marginalized groups have long been the predominant solution to address medical school student body imbalance,⁷ and are arguably a crude approach that does not challenge institutions to transform themselves.⁸ Concerned by the relatively superficial degree of diversity sought by quotas, some medical admissions leaders have increasingly expressed criticism of the effectiveness behind this prevailing strategy for Indigenous applicants.⁹ In Canada, these quotas may involve reserving a fixed number of training positions for which government funding is earmarked; a strategy that is

awkwardly resonant of government funds from earlier periods that were transferred to residential schools for each Indigenous child in attendance. From the perspective of Indigenous applicants, this approach remains blind to the need for the response to be trauma informed as well as to the diversity of Indigenous people and the often-disparate structural barriers to educational success experienced by certain subsets of this population. For instance, potential applicants from systemically underfunded reservation high schools still face great barriers to completing the requisite education to make an application to post-secondary education in the first place, let alone later applying to medical school with moderately competitive scores in preferred fields of study. Admitting an annual minimum of Indigenous students can overlook the internal diversity of an Indigenous applicant pool and varied potential connections or commitments to communities that may benefit from greatly expanded inclusion of Indigenous people in the profession. By disregarding the spectrum of inequities within Indigenous populations, such strategies risk reproducing rather than addressing and repealing institutional prejudice manifested as structural inequity.

The holistic review of medical school applicants depends on both a breadth of information about the applicant, and the involvement of multiple stakeholders, and is increasingly considered for its potential to position the admissions process as responsive to the social context and health care needs of populations.¹⁰ Without grounding in an equity-oriented approach, Indigenous applicants who most resemble the general pool become favoured, whereby inequities that exist between self-identified Indigenous individuals themselves are also perpetuated. In an ironic twist, applicants who may have newly discovered their heritage or been distanced from their ancestral communities are also marginalized by some admission processes, as they may not be considered "Indigenous enough." In practice, quotas pose important limitations in attracting applicants from underrepresented sectors of Indigenous society. Most troubling, quotas risk enabling schools to achieve a superficial level of diversity considered suitable for accreditation, rather than transformation oriented to dismantling structural (i.e., social, political, economic) barriers to accessing medical education. As a result, bias emerges in efforts to select applicants based on marginally-modified admissions criteria (e.g., adjusted minimum Grade Point Averages/GPA) applied without reflection on underlying principles for why these may enhance the admissions process.

Discussion

In the early 2000s, as a response to inequity, the CSM AC departed from a quota-based system for Indigenous student recruitment by developing equity-oriented criteria that promote Indigenous applicant success within the general pool. While the admissions process remains, as elsewhere, quantitatively focused, these criteria are strategically designed to identify qualified applicants from a number of disadvantaged groups of which Indigenous applicants were the highest priority.

The initial response adjusted the definition of 'Alberta resident' for the application process. Regardless of province of origin, all Indigenous applicants are treated as Alberta residents with a resulting change in the minimum required GPA for application (Alberta resident GPA 3.2/4.0 vs out of province 3.8/4.0). No course pre-requisite exists in the admissions process, though applicants are encouraged to have introductory background in subjects relevant to medical training. In not requiring specific prior coursework, the CSM AC avoids further disadvantaging applicants who have lacked access to training in large urban universities where specialized subjects (e.g., biochemistry, anatomy and, ironically, Indigenous studies) are more frequently offered. Additionally, all Indigenous applicants, compared to 35% of the general pool, are invited to the Multiple Mini Interview (MMI) as an added opportunity to demonstrate communication skills, maturity, and related qualities.

In 2011-12 a further refinement was added. To better tailor a response to the applicants' contexts, instead of treating all applicant scores as equivalent, the CSM AC introduced a process to assess Indigenous applicants according to a peer-reference standard that calculates a z-score for GPA, MCAT, and MMI performance in relation to an historic pool of Indigenous applicants. This reflects a commitment to the principle that an average Indigenous applicant is an equally capable individual as an average non-Indigenous applicant. Differences in mean GPA, MCAT or interview scores between groups are thereby considered reflective of historical privilege and structural bias, rather than of actual differences in individual ability. Combined, these strategies have prompted a more than twofold increase in offers to Indigenous applicants.

A qualitative study undertaken at the CSM in 2018-2019 gathered insight from three Indigenous medical students who at the time were enrolled, along with four Indigenous physicians who trained in Western Canadian medical

schools.¹¹ The study of participants' perspectives on Indigenous admissions strategies provides perspectives from those to whom such strategies should be most accountable, to ensure that the initiatives are culturally safe and do not impose a western cultural framework.

The student participants in the study were supportive of the equity-oriented approaches employed by the CSM. One student said that "being able to compete on a level playing field with any student who [i]s from Alberta gave me the opportunity that I needed to get in... I consider it not at all limiting but instead the thing that has given me the opportunity to be where I am today as an Indigenous medical student." An Indigenous physician participant in the study recalled perceiving the GPA and MCAT requirements as a barrier to applying, "I didn't think I was smart enough...the grades were a huge feat ...they look at MCAT...[prerequisites] and [GPA]...I just didn't really think that I was what they would be looking for." One Indigenous student recognized that "the whole initiative behind the [Indigenous admission strategy] is to lift up certain groups of people."

Most recently, starting in 2016, some Indigenous as well as other structurally disadvantaged applicants have been reviewed independently of application scores, through a critically-informed qualitative, social contextual frame, for attributes that may help the school to meet social accountability goals. In so doing, the CSM AC may identify and admit qualified applicants, for instance, whose educational success may be significant if considered through a lens of adversity, but who may not have scored high enough strictly in the z-score calculations to be offered admission based on scores alone. A current student participant in the study¹¹ offered that: "You want to make sure that if you're recruiting Aboriginal people that you're recruiting people that do really truly identify with a community of some sort...you can't look at someone and, tell them how [or] to what degree they are Aboriginal." While connection to community may be an attribute that furthers social accountability to surrounding communities, the CSM AC does not require that Indigenous applicants demonstrate such connection, recognizing that distance from community may also be a consequence of colonization.

Promoting equity in the recruitment of future physicians is not simply achieved by providing equal access to the playing field; it also requires recognizing that the game is systematically biased in favour of the dominant society. Physician participants in the study¹¹ reflected on their time

applying to and studying at medical school. Upon being labelled as an Indigenous student, one physician remembered feeling “less worthy to get into medical school,” “ashamed,” and “secretive.” The participants in the study shared the sentiment that the medical school environment does not allow Indigenous learners to publicly embrace an Indigenous identity. They felt doing so was potentially detrimental to fitting into the status quo and therefore being successful within medical training.

By being fully aware of how structural inequities are perpetuated within our institution, we are able to achieve our desired impact by ‘shifting the rules’ and the ‘starting line’ to adjust the field where the game happens, starting by simply redefining what is meant by excellence expected of medical school applicants.¹² Giving attention not only to academic aspects but also non-academic attributes of applicants is an essential part of aspiring to equity for the communities served by medical schools. Recognizing that equity neither begins nor ends with the admissions process, and that marginalized populations are underrepresented in the applicant pool generally,¹³ the CSM has also introduced the Pathways to Medicine Scholarship program as an upstream investment in low-income students, particularly from rural and Indigenous backgrounds entering post-secondary studies. Providing +\$25,000 in financial assistance, a paid summer internship, and faculty mentorship throughout pre-medical studies, the initiative aims to temper what some call the ‘leaky pipeline’ phenomenon among underrepresented students¹⁴ within existing structures and available resources.

Within Canada, medical school engagement with recruitment, admissions and support programs for Indigenous learners is ever evolving.¹⁵ The application of one of the dimensions proposed by Browne,⁶ inequity responsiveness, was the nidus for change for the CSM AC. While these are modest efforts compared to schools that have managed to mobilize all facets of research, service, and educational activities around the health rights of Indigenous peoples in their regions,^{2,16,17} such initiatives highlight that even in the absence of deep institutional restructuring, important work can be accomplished and evaluated to be culturally safe. Fundamental to leveraging change is mobilizing structural literacy on the origins and nature of inequities perpetuated within educational institutions. Without this critical understanding, medical schools will continue to reproduce existing social inequities and therefore the status quo.

Table 1. CSM admissions committee Indigenous recruitment strategy

Strategy	Adjusted Criteria	Equity-Oriented Rationale
No pre-requisite courses required for any applicants	Suggested coursework provided only	Pre-requisite training may further disadvantage already marginalized potential applicants
Regardless of province of origin, Indigenous applicants may apply with same criteria expected of local provincial residents (early 2000’s)	Indigenous applicants may apply with minimum GPA of 3.2/4.0, where out-of-province applicants must have a 3.8	Basic capacity for medical training is upheld and comparable to general applicant pool
All Indigenous applicants are invited to MMI (early 2000’s)	35% of general applicant pool invited to MMI	Added opportunity to demonstrate qualities and capacity to meaningfully contribute to the profession
Additional review of selected Indigenous applicants beyond scores alone (2016-2017)	Qualitative, social contextual consideration of certain applicants informed by the school’s social accountability goals	Critically-informed assessment of whether certain applicants may be suitable for admissions despite some areas of quantitative shortcoming
Z-score calculation for GPA, MCAT, and MMI performance made in relation to historical pool of Indigenous applicants (2011-2012)	Population-based comparison of Indigenous applicants against historical pool of applicants instead of a given year’s general applicant pool	Population-level differences in average scores between Indigenous and non-Indigenous applicants reflect historical privilege and structural bias, rather than individual ability
Additional Strategy		
Pathways to Medicine Scholarship Program (2016-2017)	Provides upstream investment to low-income students to assist transitions from high school through pre-medical undergraduate studies into medical training	Despite Equity-Oriented recruitment strategies, structural barriers remain for a vast majority of potential applicants from under-served communities.

Conclusions

While a quota-based approach to Indigenous medical school applicants may allow the appearance of meeting the diversity challenge, its impact is limited as it is generally not contextually responsive to the diversity of Indigenous

peoples, echoes pernicious assimilation approaches within historical Indigenous education policies, and does not address structural origins of educational inequity experienced by Indigenous learners. Equity-oriented approaches compel us to move beyond recruiting Indigenous students who appear most similar to the standard student population. Equity begins with adopting a complex view of Indigenous people who, contrary to homogenizing ideas about their disadvantage, experience structural barriers on a spectrum, navigating these in unique and innovative ways. By embedding a critical, socially conscious approach in admissions practices, we may amass an influential contingent of Indigenous (and non-Indigenous) clinicians who can begin to forge the kind of reconciliation envisioned by the TRC.

Conflicts of Interest: The authors declare no competing interests in sharing the insights in this article or in any other aspect of their work.

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Authors' contributions: RIH conceived of the piece with reference to the TRC, collected perspectives on the Indigenous admissions program from co-authors, and developed the manuscript. RW carried out the study mentioned for her master's thesis. IW and DM shared perspectives from many years on the admissions committee and provided feedback on multiple manuscript drafts. LC researched recruitment models for the program's development, shared perspectives, and provided feedback on manuscript drafts. All authors read and approved the final manuscript.

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References

1. TRCC. *Truth and Reconciliation Commission of Canada: Calls to Action*. Winnipeg MB; 2015.
2. Curtis E, Wikaire E, Jiang Y, et al. A tertiary approach to improving equity in health: quantitative analysis of the Maori and Pacific Admission Scheme (MAPAS) process, 2008-2012. *Int J Equity Health*. 2015;14:7. <https://doi.org/10.1186/s12939-015-0133-7>
3. O'Neill L, Vonsild MC, Wallstedt B, Dornan T. Admission criteria and diversity in medical school. *Med Educ*. 2013;47(6):557-61. <https://doi.org/10.1111/medu.12140>
4. Chami G. The changing dynamic of medical school admissions. *CMAJ*. 2010;182(17):1833. <https://doi.org/10.1503/cmaj.109-3679>
5. Razack S, Hodges B, Steinert Y, Maguire M. Seeking inclusion in an exclusive process: discourses of medical school student selection. *Med Educ*. 2015;49(1):36-47. <https://doi.org/10.1111/medu.12547>
6. Browne AJ, Varcoe C, Lavoie J, et al. Enhancing health care equity with Indigenous populations: evidence-based strategies from an ethnographic study *BMC Health Services Research*. 2016; 16:544. <https://doi.org/10.1186/s12913-016-1707-9>
7. Gustafson DL. Exploring equity in Canadian undergraduate medical education admissions. *AJER*. 2005;51(2):193
8. Gaudry A, Lorenz. Indigenization as inclusion, reconciliation, and decolonization: navigating the different visions for indigenizing the Canadian Academy. *AlterNative*. 2018;14(3):218-227. <https://doi.org/10.1177/1177180118785382>
9. Strugar J. Affirmative Action in Medical School Admissions—Reply. *JAMA*. 2003;289(23):3084. <https://doi.org/10.1001/jama.289.23.3084-a>
10. Conrad SS, Addams AN, Young GH. holistic review in medical school admissions and selection: a strategic, mission-driven response to shifting societal needs. *Acad Med*. 2016;91(11):1472-4. <https://doi.org/10.1097/ACM.0000000000001403>
11. Ward R. Social accountability of medical schools to Indigenous students: a critical qualitative analysis of trainee experiences in western Canadian institutions [Master's Thesis]. Calgary, AB: University of Calgary; 2020.
12. Razack S, Maguire M, Hodges B, Steinert Y. What might we be saying to potential applicants to medical school? Discourses of excellence, equity, and diversity on the web sites of Canada's 17 medical schools. *Acad Med*. 2012;87(10):1323-9. <https://doi.org/10.1097/ACM.0b013e318267663a>
13. Girotti JA, Park YS, Tekian A. Ensuring a fair and equitable selection of students to serve society's health care needs. *Med Educ*. 2015;49(1):84-92. <https://doi.org/10.1111/medu.12506>
14. Barr DA, Gonzalez ME, Wanat SF. The leaky pipeline: factors associated with early decline in interest in premedical

- studies among underrepresented minority undergraduate students. *Acad Med*. 2008;83(5):503-11.
<https://doi.org/10.1097/ACM.0b013e31816bda16>
15. Doria N, Munn E, Biderman M, Bombay A. Recruitment, admissions, and support programs for Indigenous students at Canadian medical schools. Halifax, Nova Scotia: Dalhousie University; 2019.
 16. DeCambra C, Lee WK. Imi Ho'ola Program: Producing primary care physicians for Hawai'i and the Pacific. *Hawai'i Medical Journal*. 2011;70(11):25-6.
 17. Mian O, Hogenbirk JC, Marsh DC, Prowse O, Cain M, Warry W. Tracking Indigenous applicants through the admissions process of a socially accountable medical school. *Acad Med*. 2019;94(8):1211-9.
<https://doi.org/10.1097/ACM.0000000000002636>