

REVIEWS, THEORETICAL PAPERS, AND META-ANALYSES

Admissions adaptations to widespread disruption: a multiple case study of Canadian medical school responses to a constellation of social phenomena

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Abstract

Background: Social phenomena can disrupt education systems, promoting rapid adaptations that shift which values are prioritized in institutional processes. Between 2020 and 2023, a constellation of such phenomena impacted Canadian medical education admissions systems. In this study, we used the Theory of Social Innovation to explore how the adaptive responses shifted, uprooted, or entrenched institutional values in selection systems across the country.

Methods: We used a multiple case study approach to catalog adaptations made at Canadian medical schools. Our original focus was on pandemic-driven changes but was expanded to include other phenomena raised by participants. Initial exploratory cases examined distinctive 2020 adaptations at Université de Montréal (cancelled interviews), University of Toronto (virtual interviews), and McMaster University (partial lottery). These were followed by an explanatory case bounded to the Association of Faculties of Medicine of Canada's Network on Admissions.

Results: We interviewed 37 individuals from 13 medical schools and reviewed 67 case-relevant documents. Adaptations responded to the pandemic, widespread calls for racial justice, and the rise of artificial intelligence, and included virtual interviews, actuarial approaches, and dedicated pathways for structurally excluded groups. Participants regarded these phenomena as opportunities to affirm and rebalance institutional values, while emphasizing the impact of landscape-level influences on local decisions.

Conclusions: These findings prompt Canadian medical schools to consider how recent disruptions may have moved their selection policies away from their intended purposes and whether shifts are locally desirable. Reflection on change can promote values-based decision making in the face of social phenomena.

Adaptations des procédures d'admission face à des perturbations généralisées : une étude de cas multiples sur les réponses des facultés de médecine canadiennes à un ensemble de phénomènes sociaux

Résumé

Contexte : Les phénomènes sociaux peuvent perturber les systèmes éducatifs, favorisant ainsi des adaptations rapides qui modifient les priorités en matière de valeurs au sein des processus institutionnels. Entre 2020 et 2023, un ensemble de tels phénomènes a eu un impact sur les systèmes d'admission dans l'enseignement médical canadien. Dans cette étude, nous avons utilisé la théorie de l'innovation sociale pour explorer comment les réponses adaptatives ont modifié, bouleversé ou renforcé les valeurs institutionnelles dans les systèmes de sélection à travers le pays.

Méthodes : Nous avons utilisé une approche d'étude de cas multiples pour répertorier les adaptations mises en œuvre dans les facultés de médecine canadiennes. Notre attention s'est d'abord portée sur les changements induits par la pandémie, mais elle a été élargie pour inclure d'autres phénomènes soulevés par les participants. Les premiers cas exploratoires ont porté sur des adaptations spécifiques de 2020 à l'Université de Montréal (entretiens annulés), à l'Université de Toronto (entretiens virtuels) et à l'Université McMaster (tirage au sort partiel). Ils ont été suivis d'un cas explicatif lié au Réseau sur les admissions de l'Association des facultés de médecine du Canada.

Résultats : Nous avons interrogé 37 personnes issues de 13 facultés de médecine et examiné 67 documents pertinents au regard des cas. Les adaptations ont répondu à la pandémie, aux appels généralisés en faveur de la justice raciale et à l'essor de l'intelligence artificielle ; elles comprenaient des entretiens virtuels, des approches actuarielles et des parcours dédiés aux groupes structurellement exclus. Les participants ont considéré ces phénomènes comme des occasions d'affirmer et de rééquilibrer les valeurs institutionnelles, tout en soulignant l'impact des influences à grande échelle du contexte général sur les décisions locales.

Conclusions : Ces résultats incitent les facultés de médecine canadiennes à examiner dans quelle mesure les bouleversements récents ont pu éloigner leurs politiques de sélection de leurs objectifs initiaux et à se demander si ces changements sont souhaitables au niveau local. Une réflexion sur le changement peut favoriser une prise de décision fondée sur des valeurs face aux phénomènes sociaux.

Introduction

The availability of medical school spaces in Canada (and around the world) is determined by health human resource policies that aim to ensure that there is a sufficient physician workforce to meet the healthcare needs of the population.¹⁻⁵ Yet, there have long been more qualified applicants to medical school than opportunities to enroll.⁶ Accordingly, each medical school in Canada employs local admissions policies that allocate medical school spots to

prospective candidates in a manner that aligns with their understanding of their social accountability.⁷⁻⁹ The public importance of healthcare, the principles of the discipline, the earning power of the medical profession, the heavily subsidized nature of medical training, and the relevance of institutional prestige to a school's public image ensure values-based decision-making is an important facet of medical school selection.^{10, 11} In this regard, all schools in Canada rely on active, merit-based approaches in differentiating candidates according to presumed markers of

cognitive ability (e.g., grade point averages) and interpersonal skill (e.g., interview performance scores)—qualities many consider most important to the work of a physician.¹²⁻¹⁷ Canadian medical schools have also increasingly started to commit to a wider breadth of social responsibilities, enacting selection policies that improve access for Indigenous, Black, Francophone communities outside of Quebec, and rural-residing aspiring physicians.¹⁸ These policies are designed to promote both procedural and distributive forms of justice¹⁹—offsetting inequities in traditional selection practices²⁰⁻²⁴ and promoting the provision of healthcare to Canada’s most vulnerable populations.^{9,25}

Although institutional social accountability mandates are generally conceptualized as stable between accreditation cycles, disruptions in the wider social context can prompt rapid changes to policies that shift which values are emphasized and prioritized within any set of institutional processes. These disruptions often reflect the impacts that naturalistic, constructed, and/or technological phenomena have on the actions, beliefs, or norms of individuals and groups; serving as an imperative for innovations to social systems.²⁶⁻³⁰ Over the last half-decade, several prominent phenomena have impacted Canada’s medical school admissions processes: the COVID-19 public health emergency, wide calls for racial justice, and the emergence of generative artificial intelligence technology. Perhaps most disruptive among these is the coronavirus pandemic, which caused serious and urgent challenges to applicant selection across the country.^{31,32} Travel restrictions, social distancing measures, and the prioritization of healthcare delivery meant that several aspects of typical admissions systems, such as in-person interviews and the calculation of undergraduate grade point averages, were not possible. Medical schools needed to adjust rapidly to matriculate medical school classes.

When disruption like this occurs and innovation is required, institutions must prioritize their values when making decisions about which solutions to pursue. For example, while virtual technology offered a replacement for in-person interviews,³³ the medical school must also ask: *Does this solution also introduce new problems?* Virtual interviews may have afforded applicants an opportunity to demonstrate their interpersonal skills and speak to their worthiness for a career in medicine;³⁴ but they could

also disadvantage applicants with poor access to a quality internet connection^{35,36} or a home environment characterized by contemporaneous caregiving activities.³⁷ Ultimately, the decision made, and its eventual durability, can meaningfully alter how commitments to values, such as meritocracy and social justice, are upheld and emphasized within a school’s admissions process.

In this paper, we present research conducted to catalog the nature, scale, and durability of the admissions adaptations that were enacted by Canadian medical schools over the last six years. In doing so, our goal is to illuminate how the values underpinning medical school admissions in the country may have shifted through responses to prominent social phenomena, offering a frame of reference for training institutions to reflect on whether the innovations moved their selection policies away from their original intentions. Notably, Canadian medical schools comprise a loosely federated system—a collection of autonomous institutions that work together, exchange information, and share resources in pursuit of the common goal of matriculating high-quality physician graduates. Accordingly, we also used this opportunity to explore how admissions deans, chairs, and committee members directly involved in responding to the phenomena perceived intra- and inter-institutional dynamics at the local and pan-Canadian levels to influence the decisions made.³⁸ Our goal in this regard was a greater understanding of how interactions across the Canadian medical school landscape serve to uproot or entrench values into the overall fabric of Canadian medical school selection; thus offering additional perspective that may help institutions maintain a commitment to socially accountable systems when major social disruptions occur.

Methods

Study design

We employed a sequential exploratory-explanatory multiple case study design³⁹ to understand how social phenomena prompted new medical school admissions processes in Canada. Our inquiry began with a focused look at institutional responses to the pandemic social distancing mandates and expanded to include other social phenomena as they were introduced by our participants. Our first cases were

situated at three Canadian medical schools, where we explored the adaptations that were considered and implemented in response to the social phenomena, and gathered descriptions and insights on the values and institutional dynamics that influenced the decisions made. We then progressed to a fourth case, which centred a prominent pan-Canadian medical school admissions network, and focused on interactions between institutions during the decision-making processes. In moving from the local to the landscape levels, we increased our capture of adaptations considered, implemented, and sustained, and developed an explanation of how these were shaped by institutional values and external influences.

Theoretical foundation

Our investigation was guided by the *Theory of Social Innovation*, which offers a conceptual framework for understanding how social phenomena give way to new processes that re-define the routines, resources, authority flows, and/or beliefs of the broader social system.²⁶⁻²⁸ The theory describes that social innovation occurs because a phenomenon provides a view of the adjacent possibilities that exist one degree removed from the current reality,²⁹ and is successful because it leads to a shift that has transformative impacts that are long-lasting and widespread.³⁰ The *Theory of Social Innovation* offers specific framing for understanding how innovation may permeate across a loosely federated system, fore-fronting the way that new ideas are driven by the overlapping and complimentary efforts of actors with different roles at the niche and landscape levels.

Context and setting

Our study was situated within the Canadian medical school admissions landscape, which at the time of inquiry, was composed of 17 accredited medical schools dispersed in diverse geographies and populations across eight of Canada's 10 provinces (there are no medical schools centrally located in New Brunswick, Prince Edward Island, or any of the Canadian territories). The provincial jurisdiction bears relevance on admissions insofar that the number of available seats at each medical school is determined in collaboration with provincial governments, based on educational objectives, financial resources, and projections for future physician workforce needs.⁴⁰

Case selection

In the first phase, we bound cases to three medical schools that each took unique approaches to the 2020 pandemic-impacted admissions cycle. One school cancelled in-person interviews without replacement (Université de Montréal). Another replaced in-person interviewing with virtual interviews (University of Toronto). The third case cancelled in-person interviews and implemented an actuarial system that included a partial lottery for choosing amongst applicants previously eligible for interview (McMaster University). In the second phase, as our analysis became more explanatory, we included a fourth case scoped to the Association of Faculties of Medicine of Canada's (AFMC) Network on Admissions, which serves as the unifying voice of medical school admissions in the country. The Network constituents were the admissions deans, chairs, and senior admissions managers at each of the country's 17 medical schools. Given the Network's historical and ongoing engagement with undergraduate medical education, this case was well-suited to provide comprehensive, pan-Canadian insights into the interactions, processes, decisions, and underlying values that shaped the adaptation processes during the pandemic and beyond.

Participants and recruitment

In the first phase, we recruited admissions committee members who were active at each of the three medical schools during the 2018 to 2022 admissions cycles (Figure 1). We employed a combination of purposive and snowball sampling approaches to recruit faculty leaders, administrators, student representatives, and engaged community members. The purposive sampling strategy was used to maximize diversity in participant selection based on their role in the committee, level of involvement in the adaptation process at their respective schools, and their potential to provide insightful contributions.⁴¹ Within each case, the local admissions chair acted as a project champion, facilitating recruitment through electronic mail. Recruitment materials were strategically designed to encourage interested participants to contact the research team directly, ensuring that the admissions chair remained unaware of who agreed to participate. This approach helped ensure confidentiality and a more open participation. Additionally, snowball sampling was used, allowing participating individuals to recom-

mend other committee members who could provide deep and valuable perspectives on the research question.⁴² We sampled participants until we achieved data sufficiency as it related to the relevance and completeness of the data obtained,⁴³ which ranged between four and eight members at each of the three schools.

Recruitment for the second phase was facilitated by the administrative leadership of the AFMC Network on Admissions, who distributed recruitment materials on our behalf. Given the structure of the Network, our recruitment strategy aimed to involve at least one, if not both, of the admissions chair and admissions manager from each institution. We specifically targeted individuals who were actively involved in the admissions process and were members of the Network between 2020 and 2023.

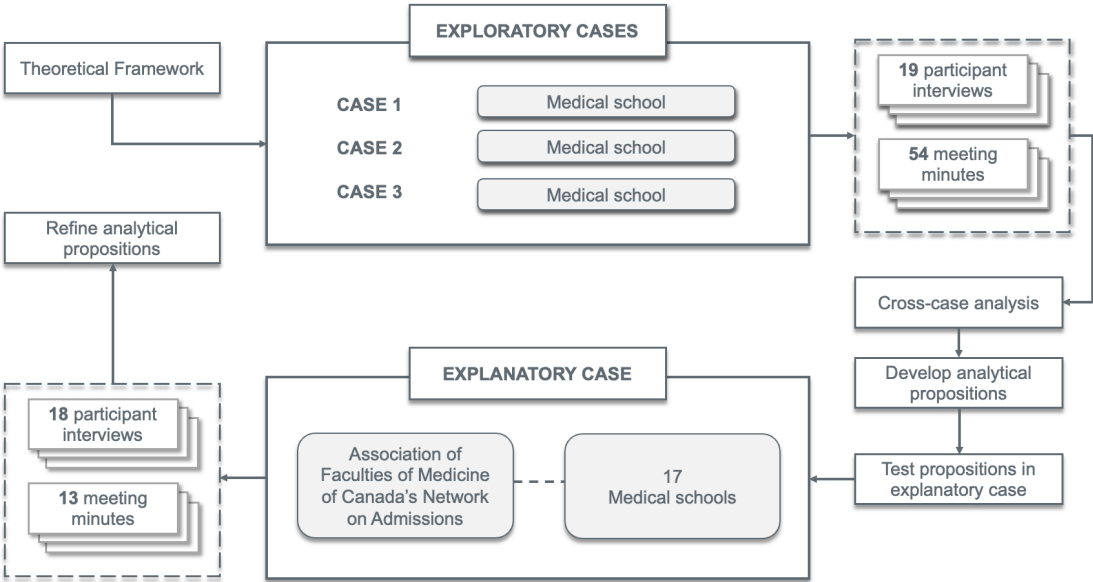


Figure 1. Schematic representation of the multiple case study design

Research team

As lead investigators of this research, we are a collection of clinician (JML, MDH) and non-clinician (LG, KK) education researchers. We adopted a pragmatic epistemological perspective, enacting operational decisions based on what we believed would work best for finding answers to the questions under investigation.⁴⁴ This orientation helped us find common ground within our interactions and communications. Interviews and qualitative analyses were supported by six research staff members with formal training in medical education, health systems, and qualitative research (AE, AQS, SB, AO, RS, JLZ). Research staff were ideally situated for data collection, as none had pre-existing professional relationships with participants. The research team also included four medical learners who had relevant lived experience as medical school applicants (AC, AF, JL, DP). These individuals offered critical insight into the aspirant experience as we created data collection tools, approached analysis, and interpreted findings. Notably, research staff AQS and JLZ also had this lived experience and contributed perceptions on the aspirant experience. Collectively, the team was composed of individuals reflecting a wide diversity of gender, age, ethnic, racial, and professional identities.

Data collection

The case study approach allows for in-depth exploration using multiple sources of evidence.³⁹ In this regard, our primary data were elicited via semi-structured interviews with recruited participants. The interview guide was co-developed by team members who brought leadership experience, pan-Canadian perspectives, and scholarly expertise on medical school admissions (LG, JML, KK, MDH, AE) alongside those who provided insight into the applicant experience (AC, JL, DP, AF, AQS, JLZ). This collaborative set of perspectives ensured that the guide was comprehensive and tailored to elicit deep, informative responses that would contribute to understanding the broader implications of the adaptations. It was also refined as data collection proceeded (i.e., to attend to a wider array of social phenomena and adaptations identified by participants) and personalized according to the participant being interviewed.

Four research staff with qualitative research and case study experience conducted interviews in either English (AE, AQS) or French (SB, RS), as per the participant's preference. These occurred between October 2022 and October 2023, lasted between 45 and 90 minutes, and took place either via telephone, videoconference, or in person. All interview audio files were transcribed and de-identified. Supplementary data were also collected from case-relevant documents detailing admissions policies, mission statements, case-specific meeting minutes (for the period between January 2020 to April 2023), and internal reports. We scrutinized these materials for context and information about relevant social phenomena, institutional responses, decision-making processes, the rationale behind adaptations, and interactions between local and landscape actors.

Data analysis

We analyzed the data via Qualitative Description,^{45,46} beginning with an in-depth within-case analysis followed by a cross-case comparison.³⁹ With an exploratory orientation, we began with an unconstrained deductive approach⁴⁷ to coding informed by the *Theory of Social Innovation* that structured the data into distinct categories: the nature of the social phenomena, the adjacent possibilities considered, the adaptations implemented, types of actors involved, intra- and inter-institutional dynamics between niche (local) and landscape (pan-Canadian) levels, and the durability of the implemented changes.²⁶⁻²⁸ Given our goal of illuminating the values on which medical admissions policies are founded, our coding was also inductive in nature. This involved organizing data according to the values articulated by participants as relevant to their local admissions systems and in the decision-making about adaptations. Taking an inductive approach allowed us to capture these ideas, even though the notion of value did not fit explicitly within the theoretical framework.

Two research team members (LG, AE) led the analysis, developing the initial codebook in English. This codebook was refined iteratively across analysis of the first case's transcripts. It was subsequently translated into French by a Francophone investigator (JML), who also participated (with SB) in coding the French interviews. We analyzed each case's transcripts sequentially, enhancing the depth of the within-case analysis. As our analytic understanding

of each case developed, we revisited earlier cases to recode for ideas of analytic interest, aiming for theoretical replication and analytic generalizability across cases.³⁹ We documented analytic decisions and insights through reflective memos, maintaining an audit trail to ensure process transparency and methodological rigour. These memos were reviewed and updated for each case, with findings discussed with the broader research team on a monthly basis. These collaborative reviews supported resolution of coding disagreements, facilitated comprehensive cross-case analyses, and enabled us to develop analytic propositions designed to explain the outcomes, patterns, and influences associated with the adaptation process.

Our propositions were then tested and refined through the analysis of data collected in the second phase, ensuring that the conclusions drawn were resonant across the broader Canadian medical school admissions landscape. This analysis was conducted by seven members of the research team (AE, AO, AQS, JLZ, and LG in English, and JML and SB in French) and followed an unconstrained deductive approach with respect to propositions forwarded from the first phase.⁴⁷ Through coding with an explanatory orientation, the propositions were iteratively refined until a final description of the adaptations and their foundational values, the adaptation process, and the influence of interactions between the local and pan-Canadian actors was developed.

Integration of English and French language analyses

Across both study phases, French language transcripts were coded in French with relevant analytic memos written in French. At moments of cross-case analysis, descriptions and theoretical propositions were developed in English. French language quotes offered as examples in our final results were translated to English for the purposes of presentation.

Ethics

The study received ethics approval from the Hamilton Integrated Research Ethics Board (Project 14300). Local ethics approval was also granted by the University of Toronto Health Sciences Research Ethics Board (Project 00046359) and the Centre In-

tégré Universitaire de Santé et de Services Sociaux du Nord-de-l'Île-de-Montréal (Project 2509) for the two other exploratory cases. The study was conducted in accordance with the guidelines set out by the Declaration of Helsinki (2024).

Results

Participant characteristics and data sources

A total of 37 individuals consented to participate, representing 13 out of 17 medical schools across the country. The participants held various roles within their respective medical school's admissions committee—chairs, directors, deans, managers, general faculty members, student representatives, community members, and institutional administrators. Notably, leadership titles such as admissions chair, director, and dean were often associated with similar roles across the various institutions. At the outset of each interview, we asked participants to describe themselves, allowing us to consider the identity features they deemed relevant within our analysis. In this regard, most shared their medical discipline as well as years of experience in their current role and in admissions overall. They identified as either women or men, and disclosed their racial identity, including membership to visible minority groups. Some also disclosed their sexual orientation, education level (i.e., degree, diploma), Indigenous or Métis identity, connections to rural and/or remote communities, and socioeconomic background (i.e., low, middle). We describe these features in aggregate to protect confidentiality and because each participant shared different identity features. **Table 1 summarizes representative reflective quotes from these participants.**

In addition, across all four cases, 67 documents, spanning meeting minutes and relevant admissions-related policies and procedures, were reviewed. The review of documents associated with the case bounded to the AFMC Network on Admissions provided us with insight on admissions adaptations across all 17 Canadian medical schools.

Table 1. Reflective quotes

No.	Quotes
1	<i>"The situation is urgent due to the need to decide on a process and receive approval from the Medical Executive Committee. [Admissions Chair] further noted that the applicants are anxious and will need some communication from us soon. He noted that a lot will be determined in the coming weeks around whether or not the program will be matriculating a class in August, but we are proceeding on the premise that it will be, until we hear otherwise." (Meeting Minutes, March 2020)</i>
2	<i>"I'm not sure that other changes that are in progress or that are going to be coming are directly related to the pandemic, or more related to other trends in society and medical admissions. I mean, the social justice movements that were happening concurrently with the pandemic definitely continue to inform admissions more broadly, not just medical admissions, like accessibility and inclusion...." (Participant 20, Admissions Manager)</i>
3	<i>"We've made a decision that we're going to go back to in-person interviews. And that decision is in large part due to internal data that as soon as we switched to virtual interviews, what we saw was about a 15% increase in the mean interview scores, compared to our historical cohort ... And again, the artificial intelligence thing is - So, we wanted to preserve that fairness which we have evidence that something's happening different in the virtual environment." (Participant 31, Admissions Dean)</i>
4	<i>"I'm very concerned about AI. There is a very significant part of our application that the applicant has to write an autobiography, tell us about yourself and why you're applying to medical school kind of thing. And I really don't like the way AI works in that you can put that question into ChatGPT, and it will give you an answer and then you can put it in the next day, and it'll give you a different answer. So, it's really impossible to track who is being inauthentic and cheating versus those people who are not, and I'm very concerned about that..." (Participant 37, Admissions Manager)</i>
5	<i>"I think that a lot of our process changes kind of spurred on by COVID because we had to do it right then. I think they supported the existing values in a way that our old processes didn't honour. I think we took the values and tried to make the process honour what it was that we were saying, so we were kind of better at talking our talk and walking our walk now." (Participant 26, Admissions Dean)</i>
6	<i>"I think there was an increased focus on equity. In prior conversations, I think we were already interested in equity and tried to do things to promote equity. But I think equity has certainly become a greater focus since the pandemic...So, I think we have taken this as a chance to put almost a microscope on every aspect of our admissions process..." (Participant 25, Director of Admissions)</i>
7	<i>"Are we getting some individuals that have been most disadvantaged over the course of their life that might have experienced greater barriers? The intention of the pathway was to reduce those barriers for individuals and help them demonstrate these other experiences..." (Participant 25, Director of Admissions)</i>
8	<i>"So [University] is known as such a research-intensive university, and so definitely like science and basic science, and its role in medical education to be the basis of informing people's clinical skills. And this kind of stuff, there is always this tension between that and our social accountability mandates, and the more human part of medicine." (Participant 20, Admissions Manager)</i>
9	<i>"Can we do the interview virtually? Maybe, but we don't want to tie up all of our medical personnel in doing these interviews—they might need to be in the hospital, they might need to be deployed to unfamiliar areas, and we just don't feel comfortable organizing a process that's gonna require a lot of clinician time." (Participant 3, Faculty Committee Member)</i>
10	<i>"But it's really like, seeking excellence, so that one is the one where we talk a lot about the meritocracy piece. Basically, balancing the academic side and the basic science knowledge stuff like that often falls under there. But as well, excellence in other ways. That's also the one where we talk about when we talk about our underrepresented pathways, about the types of excellence that people from different backgrounds can bring that haven't necessarily traditionally been recognized in medical admissions processes. So that's like many types of excellence." (Participant 20, Admissions Manager)</i>
11	<i>"[F]or our applicants, we have had students who say, 'this is great, but you know, I really wanna let my personality shine and it's very difficult to do it when you're doing asynchronous interviews right? And I'm not engaging with—I'm just doing a video with a question. I'm not engaging with anyone'." (Participant 24, Admissions Manager)</i>
12	<i>"...[I]t goes to our Undergraduate Medical Education Committee with consultation from department and school directors and the Dean's Executive and then it goes into the full Dean's Executive and then it goes into our full faculty meetings and then it goes from full faculty into Senate Admissions...then it goes from Senate Admissions into Senate, so that it can get changed. It's a very heavily guarded process." (Participant 25, Director of Admissions)</i>
13	<i>"And so whatever decisions that we decide on a sort of local level, then it has to go for approval by the sort of overarching admissions committee... But to get to any decisions on the local level, we definitely meet a lot with our colleagues across Ontario, across Canada to find out, what you are all doing right? So, my colleagues, you know, we talk a lot... and you know it's constant but has to be because we have to make sure that we're sort of consistent with what we're doing." (Participant 25, Director of Admissions)</i>
14	<i>"I think for us, you know, one of the things was, are we all doing the same thing? So, it's really hard if one school decides to go back to in-person and other schools choose to stay virtual. And not so much for those that choose to stay virtual, but it really becomes a bit of a challenge if you're the one school that decides to go back to being in person." (Participant 30, Director of Admissions)</i>
15	<i>"We're currently developing a pathway that will be only for low socioeconomic status applicants and hopefully when that rolls out, it's currently in development, but we're hoping to present it to our dean within the next month or so. But every school has a different pathway or has different entry points and groups that they focus on according to their population." (Participant 37, Admissions Manager)</i>
16	<i>"[T]here was a lot of like, 'Oh, well, should everyone in Canada do the same thing? Or should everyone in Quebec do the same thing?' And so, there were a couple of rounds where it was like, 'Oh, well, if you're thinking about this, then maybe we should too. And what would that mean? So, let's do a version where we look at that.'" (Participant 20, Admissions Manager)</i>
17	<i>"[Virtual interviewing] is actually one area that we are fairly influenced by what other schools are doing. We talk about it a lot at our Network meetings with the other medical schools. I think it's difficult to be like, we're the only medical school that's going to go back to in-person interviewing if everybody else is staying back. For social accountability reasons, we won't be going back to in-person interviewing...Outside of that, the reason why we're maintaining it for now is because most other schools are still virtual, and it seems to be giving us adequate information." (Participant 25, Admissions Manager)</i>

A constellation of prevalent social phenomena

Our participants confirmed the COVID-19 pandemic was a disruptive force to medical schools' admissions processes. Physical distancing measures hindered admissions processes; in particular, in-person interviews and onsite recruitment activities. They recalled considering the degree to which distancing mandates impacted the local admission processes and contemplating options for adapting their procedures; considerations that required the local committee to reflect on the stage of the admissions process that was disrupted. Some schools had completed all interviews during the 2019-2020 intake cycle and did not implement pandemic-related changes until the subsequent cycle. Other schools, however, were amidst or set to begin interviews when the pandemic occurred. Institutions in these situations needed rapid decision-making and immediate adaptations (Table 1, Quote 1).

Notably, although our analysis began with a focus on the impacts of the COVID-19 pandemic, we identified very early on an additional social phenomenon that interacted with the pandemic to influence changes. Specifically, the majority of participants detailed that the widespread calls for greater racial justice in society, medicine, and medical education that followed the murder of George Floyd bore considerable relevance to admissions adaptations decisions in the 2020 cycle. Ultimately, these descriptions resonated strongly in data pertaining to all admissions processes and adaptations operationalized across all cycles under study (Table 1, Quote 2).

Furthermore, as the study progressed to consider adaptations in the 2023 cycle, a significant portion of interview participants noted a third social phenomenon. The proliferation of accessible generative artificial intelligence (AI) technology was described as threatening the integrity and fairness of admissions processes operationalized over digital platforms (e.g., asynchronous virtual interviews). This phenomenon influenced decisions in the 2023 cycle specifically and portended to impact subsequent cycles. Some participants discussed the threat of AI

technology to the interviewing process itself, which prompted them to consider returning back to in-person interviewing of applicants (Table 1, Quote 3). In contrast, others expressed greater concern about the implications of AI for applicant essays (Table 1, Quote 4).

Admissions adaptations and institutional values

These social phenomena prompted admissions committees and education leaders to recognize their guiding principles and values. In this, all participants described identifying and reflecting deeply on their institutional values when making adaptation decisions (Table 1, Quote 5). During this process, participants indicated that certain admission system features and methods were directly linked with particular value propositions. That is, they perceived that the use of these features and methods worked to integrate or elevate the associated values within the admissions system (Table 2).

Across participants, we heard that the imperatives to adapt served as opportunities to re-emphasize values that were always central to their institutions, but did not prompt recognition of new values (Table 1, Quote 6). In this regard, our participants described a wide variety of ways that already-recognized values were reinforced in the context of the admissions adaptations. Specifically, equity, diversity, inclusivity, and accessibility were spotlighted in adaptations concerned with mediating decisions about how to treat undergraduate GPA calculations for applicants who had undergraduate assessments disrupted in Winter 2020 as well as in adaptations concerned with the development of facilitated admissions streams for structurally excluded groups. With these values heavily emphasized, the process of deciding on adaptations was seemingly facilitated. This was particularly evident in the context of the calls for greater social justice in medical education where many institutions quickly moved to implement facilitated pathways for Black, Indigenous, and/or Francophone applicants, as well as those with disabilities or low socioeconomic status (Table 1, Quote 7).

Table 2. Adaptations since the 2020-2023 medical school admissions cycles

Adaptation Implemented	Perceived Values	^d Scale	Sustained
Shifting to virtual interviews	Equity, diversity, inclusion, and accessibility; cultural safety; professional excellence; applicant experience; resource efficiency	Most schools	Yes*
Either excluding Winter 2020 grades from GPA calculations, or treating them as credit/no-credit	Fairness; equity and accessibility; scholastic excellence; applicant experience; resource efficiency	Most schools	Yes
Implementation of facilitated application streams and processes for equity-deserving groups.	Equity, diversity, inclusion, and accessibility; fairness; social accountability; applicant experience; professional excellence	Most schools	Yes
Reserving seats for individuals who reflect priority recruitment communities.	Social accountability; equity and accessibility; fairness	Most schools	Yes
Switching from valuing highest metrics to adopting threshold minimums (GPA; MCAT; CASPer)	Scholastic excellence; equity and accessibility; fairness	Some schools	Yes
Either removing science prerequisite requirements or evaluating as thresholds.	Equity and accessibility; fairness; applicant experience	Some schools	Yes
Introducing interview formats to enhance holistic review (e.g., 'Indigenous conversation circles')	Fairness; equity and accessibility; professional excellence	Some schools	Yes
Introducing interview formats to align with pan-Canadian conceptualizations of physician qualities (e.g., CanMEDS)	Fairness; applicant experience; professional excellence; scholastic excellence	One school	Yes
Removing the full course load prerequisite requirement in undergraduate studies	Fairness; equity and accessibility	One school	Yes
Increasing interview weight in decision algorithms.	Fairness; professional excellence	One or two schools	Yes
Establishment of diversity coefficients, which are typically calculated from responses to a series of targeted questions that assess key aspects of an applicant's background (e.g., socioeconomic status, rural upbringing, immigration history, gender diversity)	Equity, diversity, inclusion, and accessibility; social accountability	One or two schools	Yes
Adding prerequisite requirements (e.g., courses on Indigenous studies).	Equity and accessibility; fairness; applicant experience; social accountability; cultural safety	One or two schools	Yes
Introduction of personal essay questions to promote holistic review.	Equity, diversity, inclusion, and accessibility; social accountability; cultural safety	One or two schools	Yes
Introducing CASPer as a new requirement	Professional excellence	One or two schools	Yes
Multi-stage actuarial approach and lottery system	Fairness; scholastic excellence; resource efficiency	One school	No
Actuarial approach combining R score and CASPer in place of interviews	Scholastic excellence; resource efficiency	One school	No

^d"Some schools" was categorized as 3-6 schools, and "most schools" was categorized as 7 or more schools

*While virtual interviews are still prevalent, some schools are considering shifts back to in-person interviews

Balancing values

Our participants noted that the spotlighting of some institutional values was experienced as creating tension with other established values. For example, in many instances, participants highlighted that the goals of promoting selection on the basis of scholastic excellence and facilitating an equitable and accessible system were initially perceived as at odds with one another (Table 1, Quote 8). Participants also described tension when addressing the goals of facilitating comprehensive holistic review and be-

ing resource efficient throughout the admissions process, especially in a time where resources were lacking (Table 1, Quote 9). Despite these experiences, participants universally described that their local admissions groups were always able to reconcile these tensions, reaching agreements on adaptations that ensured the essence of both values. Here, our participants described the tensions as catalysts for constructive and meaningful change, spurring thought, consideration, debate, and communication rather than impeding value-aligned solutions. For instance, many participants acknowledged that the

established merit-based admissions often inadvertently disadvantaged structurally excluded groups by failing to account for systemic barriers; yet they found that equity values could be promoted within a merit-based concept. In many cases, this fostered an enhanced view of meritocracy that includes the diverse forms of excellence that individuals from varied backgrounds offer (Table 1, Quote 10).

However, while admissions committees and institutions were generally able to reach consensus on adaptations that upheld their core values, participant descriptions suggested that they did not always perceive that the adaptations implemented fully realized their potential. For instance, while institutional decision-makers anticipated that virtual interviewing would enhance equity, they were dismayed by mixed reactions from applicants. These participants described that some applicants felt the approach unfairly restricted their ability to present themselves authentically, thereby undermining the intended value of the adaptation (Table 1, Quote 11). In some instances, a disconnect between the intended changes, guided by specific values, and the perceptions of applicants and the public was reported to affect the durability of the adaptations.

Local innovation and pan-Canadian concordance

The change process—whether before, during, or subsequently to the influential phenomena—involved consideration of several different options. All of our participants highlighted that deciding between these options involved navigating local bureaucracies and interactions with regional and pan-Canadian admissions leaders in parallel. They explained that decision-making was deeply rooted in internal institutional governance structures, often requiring a multi-tiered approval process. Participants detailed extensive deliberations that began within the admissions committees and progressively involved input from higher-level executive bodies. This bureaucratic approach was perceived as ensuring all potential implications were carefully considered (Table 1, Quote 12).

Our participants also told us that they engaged in coordinated discussions with representatives from other schools, facilitated primarily through the AFMC's Network on Admissions. The key exception in this regard was the three Francophone

schools in Quebec, which communicated more often with each other than other constituents of the Network. These schools share a central interviewing system, which created a collaborative decision-making process regarding adaptations. These discussions, at any level, were perceived to foster a productive exchange of ideas, strategies, challenges, and lessons learned. In this light, all participants highlighted their local decision-making processes were heavily influenced by pan-Canadian perspectives of medical school social accountability (Table 1, Quote 13).

Participants emphasized the importance of maintaining alignment with national practices, noting the risks to institutional reputations that could arise from deviating significantly from the approaches adopted by other schools. This concern was particularly evident when considering the format of interviews—whether to return to in-person interviews or to continue with the virtual format (Table 1, Quote 14).

These inter-institutional interactions represented a key moment when landscape influences had direct impact on local adaptations. In a few interviews, participants were able to describe adaptations that adhered to pan-Canadian norms, but in a manner that was tailored to needs of the local context. For instance, facilitated admissions pathways for structurally excluded groups were realized across the country; yet schools accounted for their local context in operationalizing these decisions. While many schools created dedicated application streams for Black aspirants, a few institutions—on the basis of their perceived contextual priorities—opted rather to develop initiatives that facilitated applications and attainment for individuals with low socioeconomic status or who were from underserved remote communities (Table 1, Quote 15).

The interaction between landscape and local input also introduced a different tension in the adaptation process; one which was not always reconcilable. Specifically, participant descriptions highlighted tensions between institutional desires to be mutually innovative and socially concordant (Table 1, Quote 16). Adaptations originated mostly at the local level. However, their durability was understood with respect to their alignment with broader norms. Major departures from the typical approaches of other Canadian medical schools were rarely sus-

tained over admissions cycles, with institutions moving to re-harmonize their processes with the pan-Canadian landscape (Table 2). Ultimately, durable change necessitated widespread favorable response to adaptations to shift admissions processes in Canada. For instance, while many different adaptations were initially introduced to account for the inability to hold in-person interviews, over cycles all schools eventually adopted a virtual interviewing solution, an approach deemed by most participants as agreeable to aspirants, faculty, and the public (Table 1, Quote 17). The upshot of this normative tendency is that although there are some unique admission features at each school, in general, selection systems and standards were reported as very similar across the country.

Discussion

Our investigation highlights how Canada's medical schools adapted their candidate selection processes in response to the prevalent social phenomena of the last half decade. A noteworthy realization as we moved through this study was that social phenomena do not occur in isolation, holding other influences at bay for the convenience of institutional decision-making. Rather, several phenomena can occur at once, creating multi-layered imperatives for change and influences on admissions systems. We heard descriptions of three prominent phenomena that prompted adaptations across the 2020-2023 Canadian medical school admissions cycles—the pandemic-related mandates, widespread calls for racial justice, and the proliferation of generative AI technology. In response, a range of selection adaptations were employed, from discontinuing in-person interviews and initiating virtual ones, leveraging a lottery, relying more heavily on existing tools and established actuarial approaches, and implementing facilitated admissions pathways for structurally excluded groups; changes that required institutions to learn new technologies and introduce new practices. The process of making these changes required managing the different imperatives while simultaneously balancing the values that underpin the school's sense of institutional social accountability.

The nature of collaboration between admissions actors across the country resonated with the tenets of the *Theory of Social Innovation*, which describes the importance of complementary local and landscape contributions to the development of scalable and

durable change within the social system.²⁶⁻²⁸ Here, we see that inter-institutional interactions strongly influenced local efforts, pushing independent responses towards alignment with the broader medical school admissions landscape. Indeed, the results suggest that adaptations that centered local innovation at the expense of pan-Canadian concordance were not durable. For instance, the lottery system implemented by McMaster University, the sole version of this adaptation, was not sustained. However, adaptations that achieved a mutual concordance to the landscape influences and responsiveness to local values were more resilient. This is reflected in the way virtual interviewing and facilitated applications streams for structurally excluded groups have been adopted widely and, in some cases, expanded.

While some might interpret this normative tendency as representing a lack of institutional will to centre adaptations that are uniquely appropriate for local needs at the expense of “fitting in” with other schools, we recognize another possibility—that social concordance emerges as a function of a set of good will principles that are universally realized by institutions in the Canadian medical school ecosystem.¹¹ As institutions with their own governance structures, local community relationships, social histories, institutional memories, and cultural ideologies, medical schools are fundamentally autonomous in their decision-making; however, this does not preclude them from each independently determining a similar orientation to what they believe are their social duties.⁴⁸⁻⁵⁰ That is, the constellation of phenomena may have highlighted where institutional responsibilities were commonly not being met, and the consistency in adaptations may, in turn, simply reflect appropriate approaches to reconciling these common shortcomings.

In any event, our data show that medical schools, as regulators of aspirant admission, did not by happenstance develop similar adaptations in response to their perceived responsibilities. Rather, they were clearly collaborative in shaping the medical school selection environment, coordinating their strategies with each other to innovate admissions across the country. In this, we must acknowledge that the widespread adoption of some principles and processes does not inherently disqualify the presence of other motivations that promote a “regression to the mean.” That is, we cannot distinguish if the admissions committees in Canada acted from a sense

of duty or in conformity with what they perceive to be the most fashionable practice. Institutions may have chosen social concordance for a variety of reasons other than promoting some universally acknowledged moral imperative. However, provided the first institution to implement a new selection policy does so with a deep sense of social responsibility, then that intended good may also be realized by those who follow. The federated admissions landscape, thus, has the potential to meaningfully promote pro-social changes across Canadian medical schools. Of course, the potential to hinder such change is equally present.

The tension between maintaining national standards and allowing for local adaptations reflects a larger challenge, where there is a constant balancing act between centralized regulation and the benefits of autonomous local governance. While not explicit in our data, we can sense in our analysis that this tension may contribute to path dependency, where institutions may be inclined to stick with established practices rather than innovate, unless driven by significant external pressures. In considering this, we find ourselves closing this inquiry with a pair of new questions: *To what degree do applicants benefit from consistent admissions standards and processes across the country? And what educational benefits may be lost when institutions feel constrained in curating systems tailored to their local context?* One may argue that maintaining consistent admissions standards across medical schools is essential for reducing the burden on applicants, who might otherwise face a wide array of differing admissions requirements. As such, uniform criteria can help ensure fairness and uphold a national standard, which is critical for matriculating a competent and skilled healthcare workforce.⁵⁰ However, the necessity of adapting admissions processes to meet local needs is equally important. These adaptations are vital for promoting the selection of physicians who will be responsive to the communities the institution aims to serve. That said, the emphasis might be better placed on transparency in admissions criteria rather than on uniformity alone. For applicants, the process of applying to medical school represents a significant financial and emotional investment.⁵¹ Clear and consistent criteria can guide them in making informed decisions about where to apply, aligning their efforts with institutions where they meet the necessary requirements and feel alignment to the stated social accountabil-

ity goals. To truly understand the implications of standardization and local adaptation, a deeper investigation of each is needed, one involving input from aspirants alongside educators. Indeed, a robust understanding of the aspirant experience is essential. In doing so, we may elicit a better sense of the optimal level of social concordance and the unintended consequences that may emanate from innovations that are either overly specified or generalized.

Implications

Although accreditation standards in Canada mandate that medical schools admit students who address the priority health concerns of the populations they have a responsibility to serve,⁷ the schools realize significant latitude in interpreting and fulfilling this requirement.⁸ The findings presented here offer Canadian medical schools an opportunity to reflect on how their responses to a significant constellation of social phenomena may have shifted their selection approaches away from their intended priorities. For groups of medical schools in any federated arrangement, Canadian or otherwise, the findings also illuminate the influence of landscape-level perspectives on responses to social phenomena, impacting the selection values that are ultimately prioritized within a local context. This affords institutions a frame for reflecting on how they can centre independent goals and/or leverage collaborative practices to protect their social accountability commitments in the face of major social disruption. Ultimately, we hope to inspire deeper consideration of the social responsibilities of the medical school, and to encourage policies that serve these responsibilities.

Limitations

This study is limited in several ways. First, the reliance on qualitative interviews introduces the possibility of recall bias,⁵² as participants were asked to reflect on their experiences and decisions made during the 2020-2023 admissions cycles. However, the multiple case study design, which included supplementary analysis of case-relevant documents, adds credibility and depth to the findings. Second, the study's temporal focus on the years 2020-2023 means that the findings are specific to this time period. Although this period was significantly im-

pacted by the unique circumstances of the pandemic and other prevalent phenomena, we know that the full effect of these influences has not yet been realized.

Conclusion

Decision-making processes around admissions adaptations between 2020 and 2023 were complex, often involving both proactive and reactive elements. These decisions were shaped by various factors, including the immediate needs prompted by external phenomena, resource availability, and pan-Canadian inputs from across institutions. They involved multiple interest holders within and beyond each institution, ensuring that adaptations settled in a manner that was both locally relevant and aligned across the country. As Canadian medical schools continue to adapt to societal needs, the findings presented here illuminate the influences of recent phenomena on the values that underpin Canadian medical school selection policy, afford a deeper understanding of the processes of social innovation in this context, and provide insights that can significantly shape how future improvements in Canadian medical education are pursued.

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Published ahead of issue:

Oct 6, 2026

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Conflict of Interest:

LG is an editor for the CMEJ. He adhered to the CMEJ policy on editors as authors. There are no other competing interests.

Funding:

This study was not funded by external agency. AE is a recipient of the Canadian Institutes of Health Research Canada Graduate Scholarship – Doctoral Award, which did not influence the design, conduct, or reporting of this study.

Acknowledgements:

We would like to thank Melissa Shahin and Marie Horton for their invaluable administrative support in our recruitment efforts and collation of relevant documents. We also extend our gratitude to the following individuals for their recruitment support, document collation, and valuable contextual insights: Rabiya Jalil, Jason Profetto, Christian Bourdy, David Latter, and Owen Prowse. We would also like to thank Joshua Choi and Regis Gu for providing support with interview transcription.

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