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BRIEF REPORTS

Experienced or witnessed racism and microaggressions during medical education: an exploratory survey of medical learners at a large Canadian medical school

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Abstract

Background: As institutions strive to incorporate Equity, Diversity, Inclusion, Indigeneity, and Accessibility (EDIIA) principles into their policies and curricula, various forms of discrimination persist within the medical education system. The objective of this study was to understand learner experiences related to racism, discrimination and microaggressions in a large Canadian medical school to ultimately inform future efforts to address issues identified.

Methods: This survey-based study was distributed to all current medical students and residents at a large Canadian University. Questions focused on lived and witnessed experiences of microaggressions, discrimination or racism during medical education. We computed descriptive statistics and risk ratios for experienced or witnessed events.

Results: The survey response rate was 12.4% (321/2579), with 26% of participants self-identifying as Black, Indigenous or People of Color (BIPOC). During medical education, 30% of respondents reported experiencing racism or microaggressions, while 51% reported witnessing these events. Attending physicians (31%) and patients/families (22%) were most likely to be identified as responsible. Common proposed solutions by respondents included: anonymous reporting systems, dedicated counsellors from BIPOC groups, education of healthcare professionals on microaggressions and discrimination and increased peer/faculty support.

Conclusions: Among participants, this study described a high rate of witnessed or experienced racism or microaggressions during medical education, leading to local interventions to improve the psychological safety of learners.

Expérience ou témoignage de racisme et de microagressions pendant les études de médecine : enquête exploratoire auprès d'étudiants en médecine d'une grande faculté de médecine canadienne

Résumé

Contexte : Alors que les établissements s'efforcent d'intégrer les principes d'équité, de diversité, d'inclusion, d'autochtonisation et d'accessibilité (EDIIA) dans leurs politiques et leurs programmes d'études, diverses formes de discrimination persistent au sein du système d'éducation médicale. L'objectif de cette étude était de comprendre les expériences des étudiants en matière de racisme, de discrimination et de microagressions dans une grande faculté de médecine canadienne afin d'orienter les efforts futurs visant à résoudre les problèmes identifiés.

Méthodes : Cette étude basée sur un sondage a été distribuée à tous les étudiants en médecine et résidents actuels d'une grande université canadienne. Les questions portaient sur les expériences vécues ou observées de microagressions, de discrimination ou de racisme pendant la formation médicale. Nous avons calculé des statistiques descriptives et des rapports de risque pour les événements vécus ou observés.

Résultats : Le taux de réponse au sondage était de 12,4 % (321/2579), 26 % des participants s'identifiant comme des personnes autochtones, noires ou de couleur (PANDC). Au cours de leur formation médicale, 30 % des répondants ont déclaré avoir été victimes de racisme ou de microagressions, tandis que 51 % ont déclaré avoir été témoins de ces événements. Les médecins traitants (31 %) et les patients/familles (22 %) étaient les plus susceptibles d'être identifiés comme responsables. Les solutions couramment proposées par les répondants comprenaient : des systèmes de signalement anonymes, des conseillers dédiés issus des groupes PANDC, la formation des professionnels de la santé sur les microagressions et la discrimination, et un soutien accru des pairs/professeurs.

Conclusions : Parmi les participants, cette étude a décrit un taux élevé de racisme ou de microagressions observés ou subis pendant la formation médicale, ce qui a conduit à des interventions locales visant à améliorer la sécurité psychologique des apprenants.

Introduction

Although there is growing recognition of the need to integrate Equity, Diversity, Inclusion, Indigeneity and Accessibility (EDIIA) principles and practices within medical education, minimal Canadian data and no studies within Québec exist on the prevalence of microaggressions, discrimination and racism within medical education.[1-3]

Microaggressions are subtle, discriminatory comments or behaviours that convey hostile, derogatory, or negative messages based on identities. While they can be intentional or unintentional, microaggressions are often described as "death by a thousand cuts" and are linked to significant burnout in medical learners and worse health outcomes more broadly.[4-7]

We conducted this study to understand medical learners' experiences with racial microaggressions and racism at one of the largest Canadian medical schools. Our ultimate objective is to use this understanding to enhance safety for medical learners and advocate for learners' needs based on study findings.

Theoretical approach

This study was informed by Critical Race Theory (CRT), which frames racism as systemic and embedded in institutional structures, including the healthcare system. CRT centres the lived experience of equity-deserving groups and provides a lens to understand microaggressions, further subdivided as microassaults, microinsults and microinvalidations, as reflections of broader power imbalances.[8] (See Appendix A for a complete summary of terms)

Methods

Survey design

Our local Equity, Diversity, and Inclusion (EDI) committee, composed of medical students and residents of diverse backgrounds and years of study, conducted a brief literature review and designed a survey aligned with our objective. This survey was reviewed by the entirety of the committee and research team. Questions included: age, gender, stage of medical training, religion, ethnicity, birth country, language, and use of visible religious symbols. Respondents were able to self-identify as BIPOC (Black, Indigenous People of Colour). We collected quantitative data on experienced racism and microaggressions using dichotomic closed-ended questions (yes/no), multiple choice questions and 5-point Likert scales. Open-ended questions were also included to provide examples of learner experiences for advocacy efforts and to elicit suggestions for potential resources. To facilitate the interpretation of questions by respondents, we defined and provided examples for words and concepts such as "microaggression," "racism," and "discrimination," (Appendix A).

Setting

The setting for this study was the Faculty of Medicine at the University of Montreal in Québec, Canada. We included all medical students, residents in all specialties, as well as students in the preparatory year of medicine.[9]

Sample size and sampling methods

At the time of survey distribution, 2579 medical students and residents were enrolled at the University of Montreal. The population described above was invited by email to voluntarily participate in this study. The survey remained open for a period of 30 days in April 2021, with weekly email reminders.

Ethics

Our institution's REB approved this study (certificate #CEREP-21-007-D). Given its nature, we provided mental health support resources on each page of the survey. We also included contact information of faculty support counsellors who knew this project would be taking place.

Data analysis

Analysis consisted of descriptive statistics and risk ratios with 95% confidence intervals of witnessed or experienced microaggressions and characteristics

associated with these events. To assess impacts on BIPOC and specifically Black learners, we compared the association between sociodemographic characteristics and the risk of witnessing/experiencing racism or microaggression for these subgroups.

Positionality statement

This research is grounded in a critical framework that acknowledges the influence of researcher positionality at all stages, from design to publication. Among the seven coauthors, five identify as gender minorities and three as racialized individuals. The team includes residents and attending physicians across multiple specialities, a university professor and sociologist, and a residency program director actively engaged in EDI initiatives. All authors are committed to equity and social justice which informs the study's focus on discrimination in medical education. Their diverse professional roles and lived experiences with both privilege and oppression brings complementary perspectives essential to conducting this work responsibly.

Results

A total of 321 medical students and residents from the University of Montreal responded to our survey with a response rate of 12.6%. Respondent demographics are summarized in Table 1. Compared to available internal data collected at the time of the study, demographic characteristics of respondents were similar to non-respondents.

Of all respondents, 30.5% reported having been a victim of a microaggression or a racist act during medical school or residency. These experiences tended not to occur in isolation, with 88.1% of victims reporting two or more instances and 19.6% reporting over 10 throughout their education. When asked to categorize the type of discriminatory encounter, 68.4% of respondents expressed that they experienced mainly or exclusively racial microaggressions compared to overt racism. Medical learner anecdotes from this survey are summarized in impactful examples presented in Figure 1.

Table 1. Demographic characteristics of survey participants (n = 321)

Variable	n(%)
Gender	
Female	221 (68.8)
Male	95 (29.6))
Nonbinary or other	< 5
Age	
19-25	146 (45.9)
26-30	125 (39.3)
31-40	39 (12.2)
41+	8 (2.4)
Level of medical education	
Medical student	166 (52.5)
Resident	150 (47.4)
Ethnicity	
White	207 (62.2)
North African/Middle Eastern	57 (17.1)
Asian	43 (12.9)
Black (African, Caribbean)	17 (5.1)
Latin American	9 (2.7)
Indigenous	< 5
Other	5 (1.5)
Self-Identification as BIPOC	83 (25.9)
Religion	
Agnostic or Atheist	193 (60.3)
Christian	78 (24.4)
Muslim	28 (8.8)
Jewish	5 (1.6)
Buddhism/Other	4 (1.9)
Visible religious symbol	10 (3.2)
Language *(First language)*	
French	225 (70.1)
English	17 (5.3)
Other	79 (24.2)

Note that the total number of respondents (n) may vary across characteristics as responses to individual questions were optional, and some participants may have chosen not to answer specific questions

Figure 1. Infographic

Comparatively, over half (51%) of medical learners reported having witnessed a microaggression or racist act during their medical education. Again, these events tended to be repeated, with similar proportions reporting over two (89%) and ten (22.6%) times, respectively.

Individuals who self-identified as BIPOC were 4.5 times more likely (RR 4.51, 95% CI 3.27-6.21) to have experienced and 1.4 times more likely (RR 1.39 95% CI 1.11-1.74) to have witnessed such events. While Black medical learners were more likely to have experienced microaggressions or racism (87.5%) compared to non-Black BIPOC individuals (68.7%), this difference was not statistically significant (RR 2,51 95% CI: 0,654-9,614; p=0,213), likely due to small sample size of Black medical learners (5.0% of respondents).

Survey participants identified perpetrators of microaggressions or racist behaviour as being attending physicians (33.4%), hospital employees such as nurses or healthcare aids (25.5%) or patient and their caregivers (24.6%) in most cases. The target of these acts were most often residents or students (43.3%) or patients and their caregivers (24.9%).

Few respondents intervened after witnessing these events, with 36% reporting some intervention, which ranged from validating the victim's experience, voicing disagreement directly with the perpetrator, to informally or formally reporting events to faculty leaders. In a hypothetical scenario, respondents felt less comfortable confronting a perpetrator committing a microaggression or racist act as the academic seniority of the perpetrator increased. For example, 69% of respondents would be very comfortable or comfortable confronting a medical student, whereas proportions fell to 45.5% for residents and 12.7% for attending physicians.

Just over half of medical learners (55%) were aware of established reporting methods within the Faculty of Medicine, and very few (2.5%) had previously engaged with these resources. The interventions most commonly suggested by respondents to improve learner safety included: counsellors trained by/composed of BIPOC individuals, EDI-focused committees, microaggression training for learners and healthcare staff, and designated individuals available to respond to concerns at both university and hospital levels.

While respondents had variable experiences and opinions, they nearly unanimously agreed (95.3%) that BIPOC learners may or do face additional

obstacles or challenges during their medical education.

Discussion

Among medical learners in our survey, high rates of witnessed and experienced discriminatory behaviours were reported. Boyle et al. has examined the consequences of experiencing these events, finding that microaggressions "led to decreased access to opportunities, a delay in assuming the physician identify, and a negative impact on their sense of self and wellbeing."[10] Our study notably demonstrated the repetitive nature of these events, likely amplifying the negative consequences and psychological toll.

Some of our findings align with previous Canadian studies on this topic. A 2022 national survey of self-identifying Black medical trainees showed that 59% experienced discrimination during medical school, rising to 100% in fourth year medical students.[11] Our study builds on this work by surveying a broader and more diverse population of medical learners and by capturing both direct and observed incidents of racism. By including witnessed events, we aimed to reflect not only direct individual experiences but also the wider learning environment. While no Canadian studies have focused on witnessing discrimination during medical education, an American study found residents commonly observed racial and gender-based microaggressions.[12] By narrowing our scope to focus on racism and racial microaggressions, we aimed to better identify targets for future interventions.

Despite growing awareness of racism and discrimination within medical education, our survey identified a key barrier: discomfort in addressing or reporting incidents involving individuals in positions of higher seniority. This mirrors findings by Boyle et al., where residents cited fear of professional repercussions and lack of confidence in meaningful outcomes.[10] Our respondents echoed these concerns, highlighting the impact of power dynamics within medical training.

In response to respondent recommendations for increased education on this topic, simulation-based learning may offer an effective teaching method. Tong et al.'s study on a workshop to "empower [medical teachers] to disarm microaggressions in the clinical teaching environment" incorporated simulations specifically involving hierarchical power dynamics, often requiring modified strategies.[13] This is particularly relevant to our findings, which highlight power differentials as a major obstacle that could be specifically addressed in simulation initiatives. Given the widespread presence of simulation programs in medical education in Canada, this setting offers a practical and scalable avenue to introduce training on microaggressions and bias.[14,15]

Our study aimed to provide the faculty of medicine with quantitative data and clear examples to guide interventions to enhance learners' psychological safety. As previously reported by Young et al. in their study on microaggressions in Pediatric Medical Education, the focus must be to advocate at the systemic level.[16]

Our results have since been shared at multiple faculty meetings, contributing to local initiatives such as the adoption of anti-Discrimination policies within the Faculty of Medicine and the introduction of specific training for residency program directors on microaggressions and racism. Efforts were also made to make students aware of the available and improved institutional resources such as the "Office of Respect of the Individual" (Bureau du respect de la personne), a resource group dedicated to "the prevention of and response to harassment, discrimination, racism, and sexual violence."[17]

Addressing microaggressions from patients present unique challenges. However, strategies have been proposed previously in the literature and can be integrated into education for both medical learners and teachers.[18,19]

This study has some limitations, including the relatively low response rate, which may have led to the selection of medical learners with a higher degree of knowledge or interest in this topic, or who may be more likely to experience racism or microaggressions. The precise impact of this

sampling bias is unclear, though it is reassuring that the general demographics of survey respondents align with those of all medical learners at the time of this study. Despite this limitation, our study offers important strengths. It surveyed a large and diverse sample of current medical learners at a major Canadian medical school, and, to our knowledge, is the first of its kind in the province. Our findings have already informed local efforts, including anti-racism training and position statements, and improved institutional procedures. They also offer actionable insight for medical educators nationally.

Conclusion

Medical learners surveyed experienced and witnessed a high rate of microaggressions or racism during medical education. These findings underscore the urgent need for medical institutions to acknowledge and respond to these experiences. While this study does not evaluate specific interventions, education on this topic and tools to address identified barriers such as power differentials in medicine should be considered. Ultimately, our hope is that ongoing advocacy will foster a culture of psychological safety for medical learners.

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Appendix A. Definitions provided to survey respondents

1. **BIPOC:**
    - Black, Indigenous, People Of Colour
2. **Racism**
    - There are many definitions of the word racism and none are universally accepted. According to Scheurick and Young[1] , racism can take many forms. In the context of this study, we are discussing mainly its interpersonal and institutional forms.
        1. **Institutional racism**
            - Symbols, actions, procedures, norms rules or laws that, in a biased fashion, give certain groups advantages as the expense of others.[2] Ex. Racial profiling
        2. **Interpersonal racism**
            - Plays out in the interactions and relationships between people according to apparent or explicit dynamics (overt racism), or according to subtle, hidden or implicit dynamics (covert racism). Ex: Someone not associating with Black people because they believe they are violent

3. **Microaggression**
    - "Racial microaggressinos are subtle insults, everyday indignities, brief and mundane, verbal, behavioural or environmental in nature that communicate, intentionally or unintentionally, disrespect or insult towards a person or a target group."[3,4] Continous and repeated microaggressions, although sometimes not malicious on the part of the offender, can be experienced as discriminatory acts (or racism) by the person who suffers them
    - Sue et al. subdivide racial microagressions into three categories :
        1. *Microassaults*: Explicit and derogatory declarations, contemptuous behaviour of the aggressor towards the attacked. Ex. Racial slurs, displaying a swastika, intentionally serving a white person before a person of colour[5] .
        2. *Microinsults:* Rude and insensitive comments that undermine an individual's racial or ethnic identity. Ex. An employee who asks a racialized colleague how they got the job, implying that they would have benefited from quotas or affirmative action.
        3. *Microinvalidations:* Minimization of perceptions, thoughts, feelings, or other experiences that constitute the reality of a person of colour. Ex. Asking a non-White person where they were born.

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