2024-06-18

Exploring Resistance in the Context of Social Justice Education in Undergraduate Medical Education

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by

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE

DEGREE OF MASTER OF SCIENCE

GRADUATE PROGRAM IN COMMUNITY HEALTH SCIENCES

CALGARY, ALBERTA

JUNE, 2024

Abstract

Background: This study explores the nuanced phenomenon of student resistance to social justice education, aiming to understand how and why students may resist this in the context of a new undergraduate medical curriculum at the University of Calgary. This curriculum features a longitudinal integration of a health equity and structural competency curriculum. Previous resistance from students towards this aspect of the curriculum hinted at this being a possible phenomenon in the new curriculum, thus warranting empirical investigation.

Methods: This qualitative case study utilized semi-structured interviews with first-year medical students and faculty members at the University of Calgary to gain insight into student resistance and the ways it manifests. Phenomenography was used as a supplemental analytic lens to examine variation in resistance as a phenomenon.

Results: Between September and December 2023, 23 semi-structured interviews were conducted with medical students and faculty members. Student resistance manifested in various emotional, cognitive, and behavioural responses. Reasons for student resistance also varied from feelings of discomfort and guilt, fear of being called out, anxiety surrounding medical knowledge and clinical competence, and personal biases and prejudice. Based on these findings, an outcome space delineates a spectrum of student resistance.

Conclusion: Resistance to social justice education from medical students is a complex phenomenon that requires careful consideration. Findings from this case study reveal the diverse ways students may resist social justice education, ranging from emotional discomfort to skepticism about the relevance of social justice education to clinical practice. The findings also highlight the importance of taking proactive measures in addressing this resistance. Medical

schools can work towards this by meaningfully integrating social justice education into curricula, utilizing pedagogical approaches that could mitigate potential resistance, prioritizing faculty development, and diversifying assessment strategies.

Preface

This thesis is an original, unpublished, independent work by the author, A. Adel. The research presented in Chapters 2-4 was covered by Ethics Certificate number REB23-0922, issued by the University of Calgary Conjoint Health Ethics Board for the project “Exploring Medical Students' Experiences with a Novel Medical School Curriculum Component” on September 26, 2023 (Appendix A).

To preface this thesis, it is important to acknowledge the dynamic nature of language, which both reflects and shapes social reality. Language continually evolves to challenge stigma and marginalization, often making previously inclusive terms outdated. In this thesis, the authors strive to use inclusive language based on current knowledge. From Chapter 3 and onwards, we retain the language used by participants in order to stay true to the original transcripts. Additionally, the authors believe that as language evolves, we should aim to improve our inclusive language practices.

Acknowledgements

I would not be here today without the love, support, and kindness of so many people. Firstly, I would like to thank Dr. Allison Brown for being the best supervisor I could ask for. Dr. Brown, I am so grateful to have had the privilege to work with you over the past three years. I attribute so much of my growth to being under your mentorship, and I am incredibly lucky to have had your guidance and support throughout this process. I would also like to express my heartfelt gratitude to my committee members, Dr. Rachel Ellaway, and Dr. Rabiya Jalil for their invaluable insights and encouragement. Your unwavering enthusiasm and support for this endeavour were truly uplifting, providing me with reassurance and motivation, especially during challenging times. I would like to extend my parents' gratitude as well. They are also thankful for all your support and hope to have the opportunity to meet and express their gratitude in person one day.

Thank you to the Office of Health and Medical Education Scholarship (OHMES) for providing me with a community and space to engage in enriching conversations. I would also like to thank the Leaders in Medicine program at the University of Calgary, who have facilitated my joint MSc/MD degree. I joined the program while still working on my thesis and met like-minded individuals who provided me with immense mentorship throughout this process. I am also grateful for the Department of Community Health Sciences, Dr. Bonnie Lashewicz, the Faculty of Graduate Studies, and the Social Sciences and Humanities Research Council (SSHRC) for providing me with funding to support my graduate studies.

Finally, to my loved ones, and cherished friends, thank you for being my light.

Dedication

To my parents, Diana and Aziz Adel, whose unwavering support and prayers have been my guiding light. Your sacrifices remind me of the profound privilege I have in obtaining higher education within your comfort and security. I am endlessly grateful for the boundless love, time, and energy you have dedicated to nurturing my dreams and growth over the years.

Thank you for everything.

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List of Symbols, Abbreviations, and Nomenclature

BMI	Body Mass Index
CACMS	Committee on Accreditation of Canadian Medical Schools
CAFMC	Comité d'agrément des facultés de médecine du Canada
CanMEDS	Canadian Medical Education Directions for Specialists
CSM	Cumming School of Medicine
EDI	Equity, Diversity, and Inclusion
HE-SC	Health Equity and Structural Competency
LCME	Liaison Committee on Medical Education
MD	Medical Degree
OHMES	Office of Health and Medical Education Scholarship
OSCEs	Objective Structured Clinical Exams
REB	Research Ethics Board
RIME	Re-Imagining Medical Education
UME	Undergraduate Medical Education

Chapter One: Introduction

1.1 Addressing Social Structural Determinants of Health: A Historical Overview of Physicians' Professional Responsibilities and Shortcomings

Health disparities are characterized by variable access to healthcare services and unequal health outcomes among different demographic groups, which highlight significant systemic inequalities. Research has unveiled an intricate network of health disparities that emphasizes the need for the medical profession to investigate the range of social and structural factors influencing these disparities (Siddiqi et al., 2016; Starfield, 2011). Healthcare professionals need to comprehend the diverse elements contributing to these disparities, ranging from socioeconomic factors to institutional structures (Olah et al., 2013; Satcher, 1999).

To understand the profound impact of social, economic, environmental, and cultural factors on health, researchers and practitioners introduced the concept of "social determinants of health" (SDOH) to reflect the upstream conditions that shape health disparities (Chokshi, 2010). The World Health Organization defines social determinants of health as:

> *"the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power, and resources at global, national, and local levels"* (WHO, 2012).

These determinants serve as a lens through which we can understand the social gradients in health outcomes and the uneven distribution of health-related advantages and disadvantages across diverse social groups (Crear-Perry et al., 2021; Marmot et al., 1991). Furthermore, these inequities are rooted in structural determinants of health, encompassing policies, institutions, and

practices (Sharma et al., 2018), which underscores the intricate interplay between individual and systemic factors in shaping social inequities and health disparities.

According to Braveman, health equity is essentially "social justice in health," where "no one is denied the possibility to be healthy for belonging to a group that has historically been economically or socially disadvantaged" (Braveman, 2014). Health professionals arguably have an ethical and professional duty to address health inequities by providing care that is free from harm, and is fair, just, and impartial, independent of an individual's socioeconomic status, ethnicity, gender, or any other characteristic (Adobor, 2022). This commitment to social justice is one of the core principles outlined in the Charter on Medical Professionalism, jointly developed by the European Federation of Internal Medicine (EFIM), the American Board of Internal Medicine (ABIM) and the American College of Physicians (ACP) (DasGupta et al., 2006; Medical Professionalism, 2002)

> *"The medical profession must promote justice in the health care system, including the fair distribution of health care resources. Physicians should work actively to eliminate discrimination in health care, whether based on race, gender, socioeconomic status, ethnicity, religion, or any other social category." (Medical Professionalism, 2002)*

Various healthcare disciplines, including medicine and nursing, have established ethical frameworks and codes of conduct that underscore the importance of promoting social justice and addressing health disparities among healthcare professionals (Adobor, 2022). For example, the Hippocratic Oath, although not legally binding, emphasizes the equal treatment of all patients and the provision of care without discrimination (Adobor, 2022). In essence, I (and many others)

would argue that physicians have a collective responsibility to enhance public health, contribute to societal betterment, and improve overall health outcomes.

When discussing the role of physicians in addressing health disparities, it is essential to acknowledge that there may be countervailing opinions or arguments. For instance, in a 2019 commentary published in the *Wall Street Journal*, the former Dean at the University of Pennsylvania argued that is it *not* the role of physicians to address health disparities and the growing inclusion of teaching relating to social issues has compromised the development of medical expertise (Goldfarb, 2019). Goldfarb suggested that healthcare professionals should prioritize diagnosing and treating medical conditions, leaving broader societal issues to policymakers and social scientists (Goldfarb, 2019). Central to this stance is the notion that healthcare resources are finite, prompting the suggestion that professionals prioritize providing quality care to all patients over engaging in social justice advocacy. This raises questions about the role of healthcare professionals in addressing social and structural determinants of health. This sentiment reflects a broader trend of dissent among physicians regarding the increasing integration of social justice into medical education. In November 2023, a draft internal report from the CanMEDS 2025 Anti-Racism Working Group was circulated on X[1] sparking significant critique and pushback on social media from physicians, educators, and the public regarding a comment made on the report suggesting the importance rooting physician competence in social

[1] X is a social media application formerly known as Twitter.

justice rather than medical expertise (Higgins, 2023). This recent example alludes to ongoing tensions and conflicting views surrounding the relevance, necessity, and fundamental importance of social justice in medicine as a profession.

There are several arguments that I will make as to why social justice is foundational to contemporary physician practice. By virtue of the social contract between medicine and society, physicians are granted power and privilege by society and in return they are expected to care for all communities equally (Cruess & Cruess, 2000; Manca et al., 2020). At the patient level, physicians are positioned to support patients who are disadvantaged and are facing social isolation by connecting them to a range of resources and support services, thereby improving their access to healthcare and other essential resources (Popay et al., 2007). Improving access to healthcare involves taking action to reduce specific barriers faced by disadvantaged groups, such as covering transportation costs or providing interpretation services (Andermann, 2016). The risks involved in failing to identify social challenges that patients may be facing during their medical history include misdiagnosis and unnecessary investigations (Andermann, 2016). Physicians (as health advocates) can also advocate for efforts to reduce health inequities by engaging in various movements to encourage social, economic, political, and educational change (Nerlinger et al., 2018). Through their commitment to equal care, advocacy, and utilizing available resources, physicians can work towards closing the gaps in healthcare access and improving health equity for individuals and communities.

While addressing social and structural determinants of health has been argued as fundamental to healthcare professions, many physicians do not do so in practice (Paul et al., 2012). For instance,

according to a survey of patient perceptions of community-based services and how well they are integrated into healthcare services, more than 40% of patients said their family doctor was unaware of their difficulties, such as obtaining adequate food, arranging transportation for clinic visits, or affording medications (Iezzoni & Donelan, 2015). Furthermore, a lack of awareness may lead to misdiagnosis and inadequate medical treatment, as physicians may overlook underlying social factors influencing a patient's health contributing to poor quality care (Bloch et al., 2011). In a multinational study looking at intimate partner violence among female patients going to orthopedic clinics for non-fatal musculoskeletal injuries, only 14% of the patients stated that they were asked about intimate partner violence in the healthcare setting (Sprague, 2013). A lack of awareness can also lead to inadequate treatment if physicians prescribe medications that patients are unable to afford (Rohatgi et al., 2021). A failure to consider the underlying causes of poor health can lead to suboptimal adherence to treatments and poor clinical outcomes.

Despite the increasing importance of addressing social determinants of health, medical education has historically focused on biomedical models rather than on social, cultural, and structural determinants of health (DasGupta et al., 2006; Jaini & Lee, 2015). Training physicians only as medical experts means they may lack the foundational knowledge to recognize the broader social and structural determinants of health and overlook social context in patient care (Anderson et al., 2003; Hayman et al., 2019). On this basis, I would argue that predominantly biomedical approaches to medical training appear to fall short in adequately preparing physicians to address various determinants of health. This deficit is underscored by further evidence found in competency frameworks and accreditation standards for medical students and schools, respectively, which historically have omitted crucial aspects such as advocacy, health equity, and

cultural competence (Curtis et al., 2019; Pritchard et al., 2023). Emphasizing social and structural determinants of health as central to the professional identities and practices of medical doctors could better prepare physicians to navigate the complexities of contemporary healthcare.

1.2 Teaching about Health Inequities: The Evolution of Physician Competency Frameworks and Standards

There have been numerous calls from national and international bodies for changes in health professions education to address the health needs of populations, with a particular focus on social accountability (Frenk et al., 2010; Ross et al., 2014). Social accountability emphasizes a need for schools to provide comprehensive training in health inequities (Orban et al., 2022). This growing emphasis on social accountability has influenced accreditation standards, with a notable increase in the emphasis and expectations regarding teaching on health disparities and cultural competence in recent years (CACMS, 2023; LCME, 2023; Mangold et al., 2019). The Committee on Accreditation of Canadian Medical Schools (CACMS) and the Liaison Committee on Medical Education (LCME) jointly accredit programs that lead to an M.D. degree in Canada. Both organizations recognize the importance of teaching and education on health disparities in undergraduate medical education programs and include different elements that can be used for

accreditation (Table 1 – CACMS and LCME Standards Relevant to Health Disparities).[2] It is worth noting that the LCME standard 7.6 uses explicit language around 'structural competence' in the title and description, whereas the CACMS standard is oriented around 'cultural competence'. The differences between these concepts will be more fully explored in Chapter 1.3.

[2] Following June 30th, 2025, LCME accreditation of Canadian medical programs will cease and the CACMS will be the primary body setting the accreditation standards for Canadian undergraduate medical programs that lead to an M.D. degree.

Table 1 CACMS and LCME Standards Relevant to Health Disparities

Organization	Standard	Title	Description	Elements
Committee on Accreditation of Canadian Medical Schools (CACMS)	7.6 (under Curricular Content)	Cultural Competence and Health Care Disparities	The faculty of a medical school ensures that the medical curriculum provides opportunities for medical students to learn to recognize and appropriately address the unique needs of people of diverse cultures, genders, races and belief systems, in particular the Indigenous peoples of Canada.	a) Recognize and appropriately address the manner in which people of diverse cultures, genders, races and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments b) Recognize and appropriately address personal biases (cultural, gender, racial, belief) and how these biases influence clinical decision-making and the care provided to patients c) Develop the basic skills needed to provide culturally competent health care d) Identify health care disparities and participate in developing solutions to address them
Liaison Committee on Medical Education (LCME)	7.6 (under Curricular Content)	Structural Competence, Cultural Competence, and Health Disparities	The faculty of a medical school ensure that the medical curriculum provides opportunities for medical students to learn to recognize and appropriately address biases in themselves, in others, and in the health care delivery process.	a) The diverse manner in which people perceive health and illness and respond to various symptoms, diseases, and treatments b) The basic principles of culturally and structurally competent health care c) The importance of health care disparities and health inequities d) The impact of disparities in health care on all populations and approaches to reduce health care inequities e) The knowledge, skills, and core professional attributes needed to provide effective care in a multidimensional and diverse society

The Canadian Medical Education Directions for Specialists (CanMEDs) framework is a national physician competency framework that applies to all physicians and students at the undergraduate and postgraduate level undergoing training or practicing within either the Royal College of Physicians and Surgeons of Canada (CanMEDS 2015) or the College of Family Physicians of Canada (CanMEDS Family Medicine 2017). The framework outlines seven different roles and associated competencies that physicians in Canada are required to demonstrate. The roles in the current version include leader, communicator, health advocate, medical expert, scholar, collaborator, and professional (Figure – CanMEDS Competency Framework 2015). The roles and competencies outlined in CanMEDS are also highly influential in undergraduate and postgraduate medical training, as many of the competencies are used in the development of curriculum, courses, and content, including assessments.

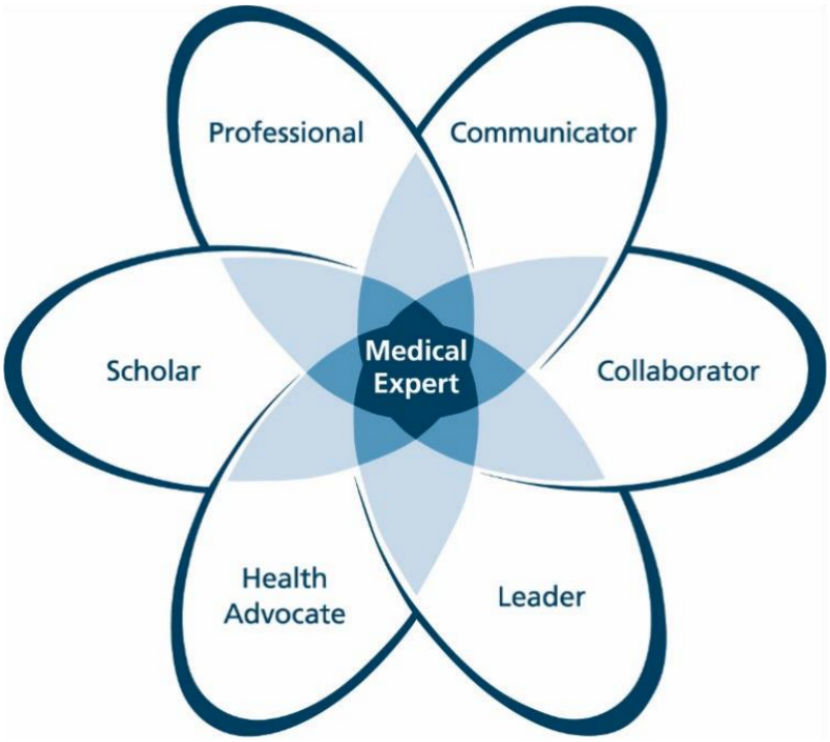


Figure 1 CanMEDS Competency Framework (2015)

In the evolution of physician competency frameworks, the historical emphasis has predominantly centered around medical expertise (Whitehead et al., 2011). This notion was further exaggerated through the use of terminology such as “medical expert roles” and “non-medical expert roles” to describe the differences between the roles in the CanMEDS framework (Sherbino et al., 2011). Over recent decades, there has been a noteworthy shift towards a more comprehensive understanding of physician competence, particularly evident in the evolution of frameworks like CanMEDS (Thoma, Abbott, et al., 2023). For instance, CanMEDS 2005 marked a significant milestone as it expanded to incorporate additional roles, including the crucial domain of Health Advocate following public consultations (Frank, 2005), further defining what competence entails

for this domain a decade later in the updated CanMEDS 2015 (Frank, 2015), However, the historical centrality of the Medical Expert role within CanMEDS has reinforced the perception that physicians are first and foremost medical experts (Stutsky et al., 2012).

Various studies highlight the inadequate emphasis on non-Medical Expert competencies (Ellaway, 2016), notably overshadowing critical aspects like Health Advocacy (Boroumand et al., 2020). In a survey where Canadian physicians were asked to rate the complexity, frequency, and criticality of each of the CanMED roles, Health Advocate received the lowest importance score (Stutsky et al., 2012). The forthcoming CanMEDS 2025, currently undergoing development, is poised to introduce changes to the existing framework, potentially addressing and refining the competencies associated with each role (Thoma, Abbott, et al., 2023). This development is critical as it aligns with the growing recognition that physician competence extends beyond medical expertise, encompassing various roles and competencies essential for comprehensive patient care.

In preparation for CanMEDS 2025, the Royal College of Physicians and Surgeons of Canada identified “Emerging Concepts” to reflect important concepts about the role of physicians that have emerged and evolved since CanMEDS 2015 (Thoma, Karwowska, et al., 2023). Some of these Emerging Concepts include Equity, Diversity, Inclusion, and Social Justice, and Anti-Racism (Thoma et al., 2023). Many of these Emerging Concepts reflect how our current understanding of physician competency is becoming more inclusive of social and structural determinants of health, such as the Emerging Concepts related to Planetary Health and

Indigenous Health. The anticipated inclusion of these topics suggests a growing emphasis on social justice as fundamental to physician practice, particularly considering CanMEDS 2015 only briefly mentions “health equity” in the health advocate role, and concepts like justice, allyship, anti-racism, and intersectionality are entirely absent from the 2015 framework (Ing, 2021; Osei-Tutu et al., 2023). The exclusion of concepts related to health equity and social justice into prior and current CanMEDS frameworks parallels its minimization from professional training, as these concepts can be overlooked by educators and may even contribute to the negative experiences of learners and physicians or patient health outcomes (Bhate & Loh, 2015; Hubinette et al., 2014). Further complicating matters, efforts to integrate these topics into medical education may be challenged as the subject matter can be perceived as less important than traditional "clinical" content, such as anatomy and physiology (Chokshi, 2010; Shaw et al., 2018).

1.3 Contemporary Frameworks for Physician Training

Undergraduate medical curricula, both formal and hidden, often exclude or marginalize certain demographics and populations while normalizing others (Cheng & Yang, 2015; Robertson, 2017). In doing so, traditional medical training may seem to cultivate a mindset that overlooks or minimizes the significance of social location and contextual factors in patient care (Lawrence et al., 2018). Efforts of educators to augment training through formal teaching about the social determinants of health and cultural competence have been criticized due to the lack of depth and integration, and have faced criticism for perpetuating harmful stereotypes and failing to emphasize the need for physicians to actively work toward changing these inequities (Manca et al., 2020; Metzl & Hansen, 2014).

Stemming from historical challenges in connecting with patients from diverse backgrounds (also reflecting a historical lack of diversity in medicine), “cultural competence” emerged in the early 2000s as a strategy to facilitate better provider-patient relationships (Kripalani et al., 2006; Saha et al., 2008). Patients, fearing unjust treatment or cultural insensitivity, may avoid seeking care, highlighting the importance of cultural competency in healthcare (Kripalani et al., 2006). Recognizing the impact of cultural norms on healthcare-seeking behaviour, cultural competency was integrated into accreditation standards such as the LCME in 2005 (Kripalani, 2006). Following suit, medical schools emphasized training physicians to deliver appropriate and culturally sensitive care to individuals with diverse cultural backgrounds.

Teaching cultural competence in medical education has been delivered through instructional methods like lectures, small group discussions, standardized patient exercises, electives, and community-engaged programming (Flores et al., 2000). Approaches to cultural competency training vary based on factors like setting, topic, emphasis, and duration, with curricula focused on improving attitudes, skills, and knowledge (Kripalani et al., 2006). Attitude-based curricula encourage self-reflection on topics like gender inequities and racism to enhance understanding of sociocultural factors affecting patients (Kripalani et al., 2006). Skills-based programs aim to develop communication skills for interpreter use and patient interactions, while knowledge-based programs focus on concepts like health disparities and social determinants of health (Kripalani et al., 2006).

Efforts to teach cultural competency have been critiqued for their lack of breadth and depth. A 2020 scoping review found that many of the published curricula for teaching cultural

competence to medical learners entailed short-term activities, ranging from one to three hour discussions, half-day exercises or workshops, or short programs that lasted no longer than a week (Deliz et al., 2020). Additionally, only 45% of the interventions required mandatory attendance from learners (Deliz et al., 2020). A critique of cultural competence education is that programming and electives that are developed for medical learners are often only included to meet broader mandates, such as accreditation standards, rather than being meaningfully structured and integrated longitudinally. Lack of continuity and integration can hinder the development of skills and limit understanding of the complexities of cultural relationships.

Another critique of efforts to teach cultural competence is how efforts can overlook the social structures and broader institutions underlying health disparities. Limited research supports the notion that cultural competence training improves health outcomes for diverse groups, with little evidence of its effectiveness for Indigenous populations (Anderson et al., 2003; Paul et al., 2012). Despite seemingly well-intended educational efforts, many medical professionals and learners still feel unprepared for culturally sensitive care. For instance, a study out of Harvard Medical School looked at student preparedness and skillfulness to provide cross-cultural care across four years and found that the majority of students reported a lack of preparedness to provide cross-cultural care (Green et al., 2017). Therefore, there is a need for medical schools to further prioritize equity issues, both in their functioning and programming. This has included calls for training that addresses bias and discrimination, such as anti-racism initiatives (Lynn et al., 2023). Recognizing the need to augment both breadth and depth of understanding amongst healthcare professionals, new frameworks have been created in response to the critiques and shortcomings of traditional training.

In response to the limitations and critiques surrounding efforts to teach cultural competence and social determinants of health to medical learners, the concept of *Structural Competence* was introduced by Metzl & Hansen in 2014. Structural competency is defined as the ability of healthcare professionals to acknowledge how larger social, political, economic, and cultural structures influence health outcomes (Metzl & Hansen, 2014) Structural competence redirects attention from individual factors to the broader upstream structures and systems of power that perpetuate social injustices and health disparities (Metzl & Hansen, 2014). Embracing structural competence allows medical education to transcend culturally limiting portrayals, often centred on racial or ethnic backgrounds, which inadvertently sustain stereotypes and bias. To achieve this shift, medical schools need to provide explicit instruction as to how social, political, and economic structures produce social inequities and health disparities. While progress is being made in medical curricula in the United States to emphasize structural competence – including in accreditation standards - Canadian medical schools have mainly focused on cultural competence and the social determinants of health and have yet to fully incorporate structural competence into curricula (Sharma et al., 2018). The imperative remains clear: medical schools must increase efforts to emphasize teaching on health inequities and the larger systemic issues that impact patient care if it is to prepare future physicians to recognize, confront, and address health inequities.

1.4 Common & Prevailing Challenges to Educational Efforts

Curriculum reform efforts to address health equity can encounter various challenges and barriers. While much of the literature has focused on teaching interventions, little is known regarding the extent these interventions effectively translate into clinical practice and ultimately impact health disparities (Sharma et al., 2018). The lack of shared terminology and frameworks can also complicate educational efforts. Various health entities have defined health inequity differently and the language used to describe health inequities within the curriculum is often broad and encompasses terms such as population health, public health, global health, social justice, and advocacy (Adams et al., 2022; Havemann & Bösner, 2018). Integration can be challenging when such topics are superimposed on traditional curricula that is already seen as saturated. Teaching on health equity is frequently allocated less time compared to other topics, such as traditional clinical content, due to opposition from various stakeholders, making it more difficult for learners to engage in critical content and discussions that contribute to transformative change (Gonzalez et al., 2019; McDermott et al., 2019). Together, these challenges highlight the need for a more comprehensive and focused approach to teaching health equity, which encourages critical thinking and actively empowers future physicians to tackle these disparities head-on.

The inclusion of social justice training in medical education is also challenged by faculty capacity, or the extent that the current pool of faculty involved in the development and delivery of the curriculum are able to effectively incorporate social justice subject matter with clinical. Faculty members have limited time and competing demands within the curriculum, making it difficult to dedicate enough attention and resources to teaching topics that are not typically integrated into the curriculum effectively (Adams et al., 2022; Dobson et al., 2015). The lack of diversity among faculty members, considering their lived experiences and perspectives related to

social justice, has also hindered the creation of inclusive curricula (Denton & Papp, 2019; Gonzalez et al., 2019). By virtue of these topics being excluded from their formal medical training, faculty members often lack the foundational knowledge and skills necessary to provide comprehensive education on social justice issues (Gonzalez et al., 2018). Further complicating matters, some faculty members may be opposed to incorporating social justice topics into the curriculum due to personal beliefs, biases, or discomfort with the subject matter (Denton & Papp, 2019). Collectively these factors may contribute to the limited integration of social justice into medical education. These barriers are likely to continue to obstruct efforts to teach medical students about health disparities and social justice and to empower them to act as change agents if not addressed.

Even if curriculum reform efforts successfully integrate and emphasize health equity within the formal curriculum, the extent of uptake and receptivity from students may pose an additional barrier. Scholarship from higher education points to how various factors such as familiarity and confidence can influence the uptake of social justice education (Johnson and Vinding, 2023). Teaching social justice topics can elicit discomfort among learners, particularly those from more privileged backgrounds, which poses a challenge in fostering productive discussions (Rozas & Miller, 2009). Addressing social justice issues in the curriculum can be particularly difficult due to their perceived sensitive nature (Rozas & Miller, 2009). The perceived sensitivity of these topics increases the likelihood of encountering conflict and misunderstandings among learners with divergent values, lived experiences, or beliefs regarding social justice issues, which can have implications for educators or administration (Joseph et al., 2021). There is a risk that these challenges may hinder the achievement of learning objectives as they may be thwarted by the

attitudes and behaviours of students, ultimately jeopardizing important efforts to train future doctors to recognize and address social and structural forces at the root of health and wellbeing. For instance, medical students have been found to disengage from health equity themes in the curriculum, such as how race and ethnicity relate to medicine (Olsen, 2019). Ultimately, efforts to augment teaching and learning about social justice and health equity can be hindered by the extent students and faculty members resist it. In order to navigate such resistance, we must first understand it.

1.5 Theoretical & Conceptual Perspectives on Resistance

Resistance is a complex phenomenon that has been studied by theorists across various disciplinary contexts, including higher education. Originating from neo-Marxist, postmodern, feminist, and post-structural theories that highlight power struggles, resistance theories have gained prominence within the discourse surrounding education (Abowitz, 2000). Theorists conceptualize resistance as a complex and multifaceted phenomenon embedded within social, cultural, and historical contexts and as a mechanism for individuals and groups to contest and transform oppressive systems – as well as to uphold them. One of the earliest studies on student resistance was Willis's 1977 ethnographic study that examined resistance in educational settings among working-class male students in England (Willis, 1977). The study tracked twelve students who dropped out of school at sixteen for employment, contrasting them with a group of "conformists" who remained in school (Willis, 1977). The findings indicated that the students who dropped out did so believing that adhering to the educational system would reduce the chance of desired social mobility (Willis, 1977). Willis argued that student resistance not only posed a threat to the existing social order but also contributed to its perpetuation (Willis, 1977).

However, critics contended that Willis overlooked individual-level meanings of resistance and assumed it was solely shaped within groups (Bessett & Gualtieri, 2002).

Resistance theories in education offer insight into how the imposition of curricula, norms, and cultural dynamics within educational institutions can perpetuate structural inequalities based on class, gender, race, and sexuality (Abowitz, 2000). These theories highlight the ways in which students can challenge these power hierarchies, particularly when they reinforce existing disparities (Abowitz, 2000). Resistance theorists contend that social institutions that uphold dominant ideas or beliefs require resistance in order to challenge societal norms (Abowitz, 2000). By seeking to prevent "the reproduction of oppressive social structures and social interactions," Walker (1985, p. 65) claimed that resistance was believed to contribute in some way to the progressive transformation of the environment (Walker, 1985). An important facet of resistance theory is understanding resistance to change. One such example is "cultural resistance," where minority groups strive to preserve their cultural identities in the face of assimilation (Moghissi, 1999). As institutions of higher education actively seek to introduce changes to their curricula and frameworks through various initiatives, conducting studies on these initiatives would provide valuable insights into how learners respond to these changes by means of resistance.

While previous scholarship examining resistance has argued that underprivileged populations resist powerful individuals or institutions, resistance can also arise from those with power and privilege in society. Hollander and Einwohner (2004) described two common features of resistance in their systematic review of interdisciplinary literature on resistance: a sense of action

that can take the form of behavioural, verbal, cognitive, or physical action, as well as a sense of opposition that is typically directed at a more powerful person or institution. Furthermore, Baaz and colleagues describe resistance as a reaction or response against power (Baaz et al., 2016). The relationship between resistance and power has become increasingly explicated in the literature, with more discipline-specific scholarship highlighting the role of power in shaping resistance.

Resistance has also been described as a reaction against confining social structures that hold power (Shaw et al., 2018). In their article exploring how medical students reacted to the professionalism lapses of medical practitioners through various forms of resistance, Shaw et al (2018) highlighted the unique power dynamics and hierarchies embedded in medicine, and how that influences student resistance. When there are power dynamics involved, those who have fewer resources and less power in the relationships will only participate in more subtle acts of resistance in order to avoid repercussions (Shaw et al., 2018). Medicine and medical education can be considered as systems and institutions deeply embedded with power (Vanstone & Grierson, 2022). In considering medical student resistance to social justice education, resistance theories would argue that the role of power cannot be overlooked.

The current body of scholarship surrounding medical student resistance is relatively scarce, but suggests student resistance takes different forms, from participating in demonstrations against racial inequality or the COVID-19 pandemic to more commonplace behaviours that pose less harm to the individual, including fake compliance, pretending ignorance, and foot-dragging (Colburn, 2016). While acts of resistance can range from being more overt such as participating

in strikes, and boycotts, resistance can also be rather subtle and used as an escape mechanism rather than to change or challenge power dynamics (Ewick & Silbey, 2003). A study out of Australia and the United Kingdom analyzed qualitative data from interviews, questionnaires, and focus groups, from a sample of 808 medical students to better understand how resistance develops among medical students in everyday interactions with their seniors in educational and clinical settings (Shaw et al., 2018). The findings highlighted the diverse strategies employed by medical students, including direct and indirect, immediate and delayed, verbal and physical forms of resistance, to address professional shortcomings exhibited by individuals in positions of power, which contradicted their own moral, ethical, and professional values (Shaw et al., 2018). Other aspects to consider regarding student resistance have yet to be well addressed in medical education research (Ellaway & Wyatt, 2021).

Medical student resistance specifically in response to educational efforts that aim to emphasize social justice is concerning, yet poorly understood. Empirical research on resistance to social justice education has generally focused on K–12 classrooms, post-secondary students, and persons from privileged and wealthy backgrounds (Goodman, 2011). Ellaway and Wyatt have published scholarship about resistance in health professions education but conceptualize resistance as individual and collective *denunciations* of social harms and injustices (Ellaway & Wyatt, 2022). I intend to conceptualize resistance as a spectrum of overt and covert oppositional behaviours and responses. Ellaway and Wyatt (2021) proposed that addressing resistance in medical education necessitates a collaborative approach, fostering co-learning and shared discovery between medical students and educators to effectively navigate instances of resistance during everyday instruction. With medical programs gradually transforming their teaching

practices to incorporate topics of health inequities and social justice, it has become crucial to understand students' reactions and resistance towards these changes.

A comprehensive understanding of the origins of resistance is crucial, as failing to grasp the underlying causes and motivations behind such instances may lead to the erroneous simplification of resistance as mere expressions of privilege or selfishness. However, it is possible that positions of resistance can be justifiable once analyzed and fully understood. For instance, resistance may stem from the recognition that stronger actions are necessary, rather than settling for weak or inadequate efforts (Wyatt et al., 2023). Alternatively, resistance may arise from concerns about addressing only one aspect of inequality while neglecting others, which would be incomplete or insufficient. Arguably, it is insufficient to merely identify student resistance - a deeper understanding of the intricate issues underlying this complex phenomenon is needed.

1.6 Context: Curriculum Reform at the University of Calgary & the Re-Imagining Medical Education (RIME) Initiative

The Cumming School of Medicine (CSM) at the University of Calgary offers a three-year undergraduate medical degree (MD) program. During the pre-clerkship stage, which spans 18 months, traditional (e.g., didactic) teaching methods focus on establishing foundational knowledge and skills relating to the practice of medicine. The clerkship stage, lasting 16 months, relies on experiential learning as students rotate across various disciplines and contexts, including Family Medicine, General Surgery, Psychiatry, Pediatrics, Internal Medicine,

Anesthesia, Obstetrics and Gynecology, and Emergency Medicine, in addition to elective rotations (CSM, 2023). The University of Calgary's MD program, alongside other medical schools, is represented by the Canadian Medical Association (CMA), the Association of Faculties of Medicine of Canada (AFMC), and the Committee on Accreditation of Canadian Medical Schools (CACMS or CAFMC in French). As previously discussed in Chapter 1.2, medical schools in Canada must meet accreditation standards as set out by the CACMS and the LCME. The CSM was last accredited by CACMS and the LCME in 2016, with a forthcoming full accreditation visit this upcoming Fall 2024.

Following the 2016 accreditation visit, the "Re-Imagining Medical Education" (RIME) initiative was commissioned in 2017 to identify areas for improvement in the pre-clinical curriculum (Kachra et al., 2020). Despite being originally conceptualized as a small-scale initiative; the results of RIME were so profound that a substantial re-design of the curriculum was supported by the UME office and the senior leadership team. Approval for a new pre-clerkship curriculum was granted in November 2021.

In July 2023, the new RIME curriculum officially launched with the cohort of students in the Class of 2026. This new curriculum was designed with four guiding principles in mind: generalism, integration, spirality, and patient-centeredness. The new curriculum is administratively organized around three, six-month blocks. Each block has "units" which are 6-weeks in length. Instructional methods also shifted away from traditional didactic and lecture-based modalities toward using in-person time for applications and emphasizing adult learning principles (RIME, 2022).

An important component of the new curriculum is the longitudinal integration of Health Equity & Structural Competency (HE-SC), reflecting a goal whereby there is a longitudinal focus on structural competence during UME (RIME, 2022). As previously discussed in Chapter 1.3, structural competence is an emerging framework in health professions education that aims to broaden professional lenses to recognize and address social and structural determinants of health such as food insecurity, housing, education, and racism (Wang & Burton, 2020). A substantial goal of the envisioned HE-SC curriculum was the foregrounding issues of equity, diversity, and inclusion (EDI) and the social and structural determinants of health alongside traditional clinical content. A guiding motto of "no clinical content without social context" was repeated to reinforce the importance of diffusing social and structural determinants of health into everyday teaching (RIME, 2022).

In alignment with the principle of patient-centeredness, each week of the new pre-clerkship curriculum is designed to anchor around a patient-of-the-week, introduced on Monday and revisited on Friday, while also incorporating patient-based cases in each of the two small group session that occur within a week (Figure 2 – RIME Weekly Overview).

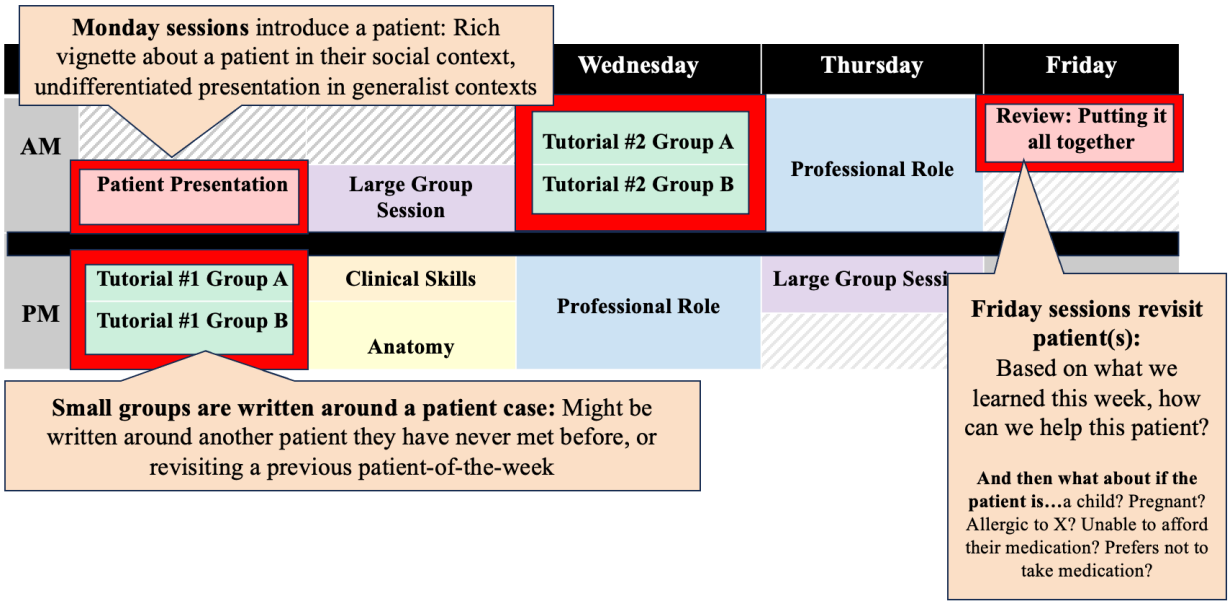


Figure 2 RIME Weekly Overview

The RIME Task Force strategically had a curriculum team focused on Health Equity and Structural Competency to ensure social justice principles and teaching were integrated into the new curriculum alongside the clinical content each week (Table 2 – RIME Health Equity and Structural Competency Overview) (RIME, 2022). The HE-SC team has an official Director, and four portfolio leads, who oversee the identification of topics and integration within the overall curriculum (Figure 3 – Visual Overview of HE-SC Portfolio Domains and Role of Portfolio Leads). These topics, which can include Indigenous health, immigrant and refugee health, LGBTQ2S+ health, are introduced during formal sessions, integrated into weekly patient cases, and through events such as panel discussions and workshops. Black boxes in Table 2 indicated the HE-SC topic(s) that were of major focus for the corresponding week.

PORTFOLIO	INCLUSIVE OF TOPICS SUCH AS:
Indigenous health	anti-racism, reconciliation, decolonization
Race, ethnicity, and culture	anti-racism (incl. a specific focus on anti-Black racism, caring for newcomers and refugees
Gender and sexuality	gender-affirming care for LGBTQ2S+ patients and populations, foundations of sex and gender
Wealth and health, space and place	poverty, housing and food security, climate change, global health, harm reduction
Caring for diverse bodies and minds	disability (ableism), mental health, obesity bias and fatphobia, care of the elderly (ageism)

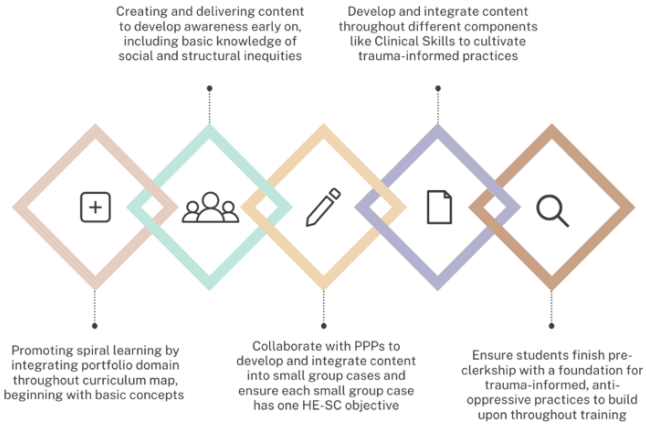
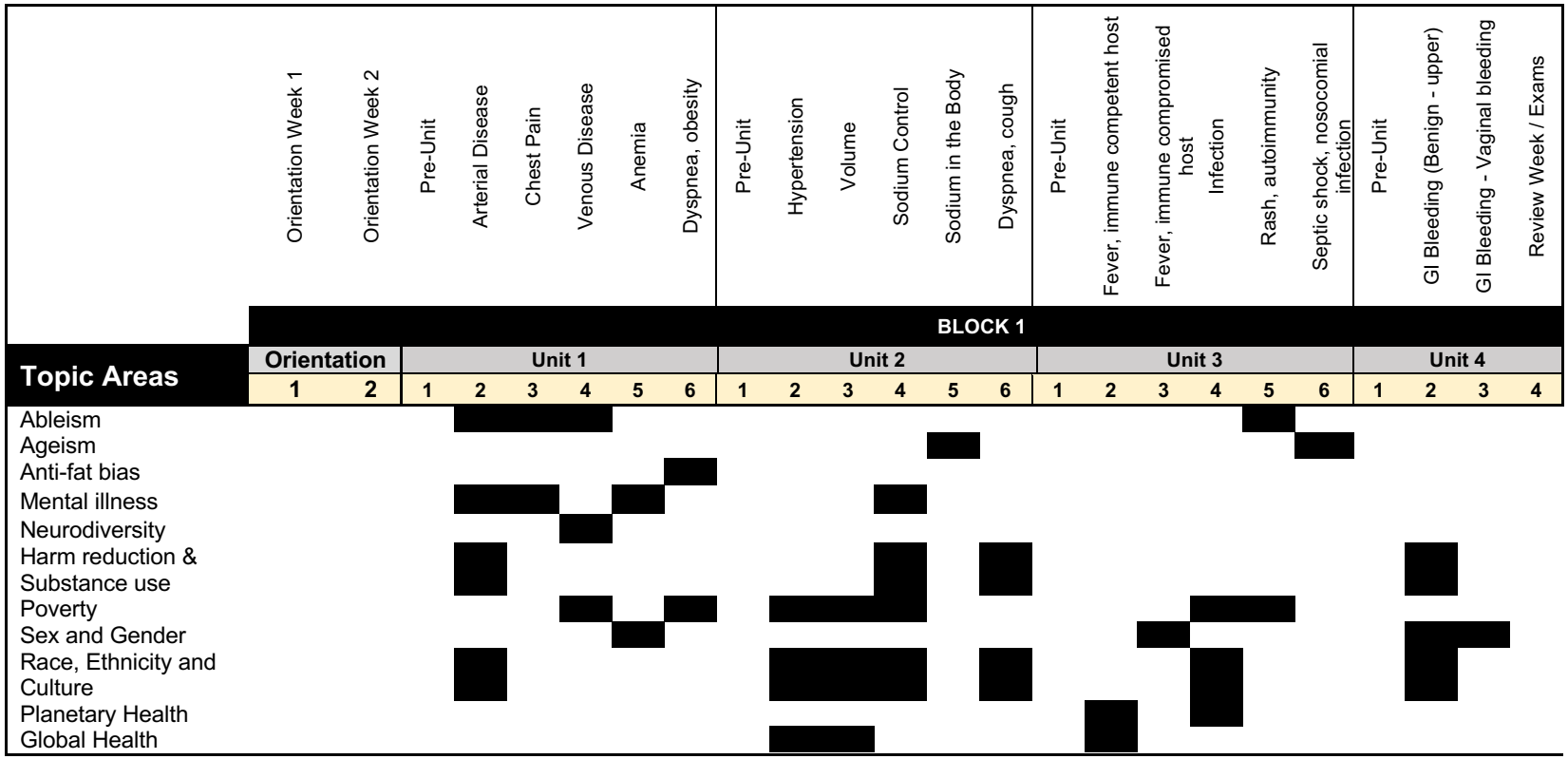


Figure 3 Visual Overview of HE-SC Portfolio Domains and Role of Portfolio Leads

Table 2 Overview of Health Equity and Structural Competency Curriculum Units 1-4[3]



[3] Provided by HE-SC Director, Dr. Amy Gausvik on February 29, 2024. This version does not include some of the HE-SC sessions that occurred during Orientation including sessions dedicated to Indigenous health, privilege and power, and implicit bias.

While the RIME initiative led to substantial changes to all aspects of the pre-clerkship curriculum, it importantly reflects significant efforts to emphasize social justice as a fundamental component of training to prepare future medical doctors to recognize and address the systemic and structural forces at the root of health equity. Based on previous and ongoing teaching efforts, there are increasing concerns about how medical students will resist teaching and learning relating to social justice issues and topics (Shaw et al., 2018). An internal survey of medical students in the Cumming School of Medicine in the Fall of 2021 conducted by Dr. Allison Brown found that 38% of respondents considered lack of student comfort with social justice and EDI issues to be a barrier to learner engagement within the new RIME curriculum. In the survey, one student commented that *"students with more social privilege take a neutral stance towards many issues, and I think they do it because they have the privilege to not advocate."* These findings hinted towards the potential for student resistance in the new curriculum, thus warranting empirical investigation.

1.7 Purpose & Research Question

The purpose of my thesis research was to explore the experiences of and perspectives of individual first-year medical students' who feel or express resistance to social justice education. Through conducting empirical research concurrent to the initial block of the new curriculum, I answer the following research question: **How and why do individual first-year medical students at the Cumming School of Medicine resist social justice-oriented medical education?**

Chapter Two: Methods

2.1 Methodology

Case study research is a mixed methods approach that emerged out of fields such as sociology and anthropology and has become more commonly used in other areas such as medicine, psychology, political science, and law (Hamel et al., 1993). Although quantitative data can be included, case-study research tends to be more qualitative as an approach that seeks to establish "an intrinsic, holistic description and analysis of a bounded phenomenon such as a program, an institution, a person, a process, or a social unit" (Merriam, 1988). A case is defined as a contemporary bounded system, and can be explored using in-depth data collection involving two or more sources of information (Creswell & Poth, 2018). As one source of information is rarely sufficient to build a thorough understanding of a case, these various sources of information may include interviews, observations, surveys, evaluations, reports, and audiovisual material (Creswell & Poth, 2018). Additionally, case study research can vary in scope. For example, the unit of analysis that is being observed may consist of a single case or multiple cases and may centre on a single individual, a small collection of people, or even a sizable institution or organization (Yazan, 2015). The case or multiple cases are then reported using a thick description to demonstrate rigour and trustworthiness (Creswell & Poth, 2018). Numerous approaches to case study research have evolved over recent decades and disciplines, offering flexibility for researchers to select an approach that best aligns with the research question (Merriam, 1988; Stake & Walker, 1996; Yin, 2014).

While various approaches to case study research have been established, I identified Sharan Merriam's 1998 approach as the most appropriate for this research for several reasons (Merriam,

1998). Merriam's conceptualization of a case is aligned with Miles and Huberman's assertion that "the case is a phenomenon of some sort occurring in a bounded context," which is consistent with the research question of attempting to explore resistance in an educational context (Merriam, 1998, p. 27). Furthermore, Merriam conceptualized educational contexts as cases by treating them as individual entities or units of analysis (Merriam, 1988). The case study method allows researchers to explore the unique characteristics, contexts, and dynamics of a particular educational program, paying attention to the local and extra-local factors that influence academic and professional institutions (Merriam, 1988). Merriam's epistemological commitments are grounded in constructivism due to her understanding that qualitative case study research is oriented towards realities that are constructed by how individuals interact with their social worlds (Merriam, 1998). Using Merriam's approach to case study led to a rich, empirical exploration of resistance as an everyday phenomenon that occurs through interactions between individuals and their environments, with varying social factors influencing resistance (Ellaway & Wyatt, 2021). Additionally, to aid in a better understanding of people's experiences and their own constructions of resistance to social justice-oriented medical education, constructivism—a view that knowledge is socially constructed and meant to give meanings to experiences—will be used as a paradigmatic perspective for this research (Colliver, 2002). Although Yin provides adequate guidelines for case study research, Yin's epistemological commitments are grounded in positivism, which does not fare well with the social components of resistance (Yazan, 2015).

Philosophically, this research is rooted in a paradigm of critical inquiry. Since resistance to social justice in medical education is a complex and under-researched phenomenon, an exploratory approach is needed to understand how and why it manifests with attention to the role of power

structures. Critical qualitative inquiry has promising potential to explore and uncover rich descriptions of the accounts and experiences of resistance from first-year medical students who are undergoing a new curriculum that aims to integrate social justice principles into its teaching. Additionally, a characteristic of Merriam's approach to case study research is that it is descriptive as it aims to develop a thick description of the phenomenon being studied (Yazan, 2015).

Later discussed in Chapter 2.4, I leveraged a phenomenographical lens to my analysis to better explore how and why resistance manifests. My choice of phenomenography over phenomenology was deliberate as phenomenography allowed for a nuanced understanding of student resistance in a novel curriculum

2.1.1 Case Definition & Boundaries

Merriam (1998) defines the "case" in case study research as a unit within which there are boundaries around, and this unit can be an individual, a program, a group of people, or a policy. For the purpose of this study, the case is bound by the following parameters: the University of Calgary, the Cumming School of Medicine, Undergraduate Medical Education (UME), the Re-Imagining Medical Education Initiative (RIME), the first cohort of students under the RIME, pre-clerkship, the first block, and the Health Equity and Structural Competency (HE-SC) portion of the curriculum. These defined parameters establish the boundaries within which the study will investigate and analyze the intricacies of resistance within the specified context.

2.2 Methods

Merriam (1998) defined three characteristics of a case study: focusing on a particular phenomenon, program, or event; providing a rich description of the phenomenon being studied; and enhancing the reader's comprehension of the phenomenon being studied. Case study research offers the ability to ask questions about how and why resistance to social justice education might occur in a particular case, and to explore the phenomenon of resistance more in-depth using multiple methods of data collection.

Merriam's approach to case study research outlined three potential qualitative data collection techniques: ethnographic observations, conducting interviews, and analyzing documents (Merriam, 1998). Additionally, Merriam (1998) pointed out the importance of simultaneously collecting and analyzing data. For my research, I conducted semi-structured interviews with two participant groups – students and faculty – to collect empirical data that could deepen my understanding of how, where, and when medical students' resistance to social justice teaching manifests, and, most importantly, why.

2.2.1 Study Participants & Sampling Strategies

For this study, first-year medical students who were part of the inaugural class in the new RIME curriculum were a primary study population. This cohort is nicknamed the 'Lunkaryas'[4] as part of a tradition in the medical school but is more formally known as the Class of 2026 and consists of 160 medical students. In addition to students, faculty were also included as participants given their ability to provide insight into the phenomenon of student resistance based on their role in the new curriculum. Key informants, including students of the Class of 2026, faculty previously involved in the RIME initiative, and individuals in leadership positions within UME assisted in identifying potential participants.

Purposive sampling is used in qualitative inquiry to identify and recruit participants who are more likely to provide useful information relevant to the research question and can effectively describe the case using limited research resources (Palinkas et al., 2015). Purposive sampling can also provide more depth of understanding, as opposed to breadth of understanding (Palinkas et al., 2015). From a phenomenographical standpoint, purposive sampling can be utilized to identify individuals who may showcase variations or differences in perceptions or understanding of the phenomenon (Marton, 1986). To properly identify variations in perceptions and understanding of resistance, it is important to structure the sample group in such a way that the variety in the outcome is maximized (Trigwell, 2006).

[4] Since 1975, each medical school class at the University of Calgary is given an animal name by the previous class; cohorts and students are often referred to by their class animal name

Participants were purposively selected using a combination of criterion, convenience, and snowball sampling methods. Specific criteria were employed to identify suitable participants, such as being a medical student or faculty member at the University of Calgary in the new RIME curriculum. To overcome the potential challenges in recruiting medical students and to ensure the inclusion of relevant participants, snowball sampling was employed in collaboration with key informants. Snowball sampling is particularly useful when identifying participants with specific characteristics is challenging or when accessibility is limited (Fereshteh et al., 2017). At the end of each interview, participants were informed about the use of snowball sampling for recruiting participants for this study and were asked to suggest potential participants who fit the eligibility criteria and could add valuable insights to the study. My sampling strategy for this study was responsive and adaptive to the evolving data and participants were recruited based on emerging insights throughout the process of data collection and analysis. For example, after the initial recruitment, I found that there was a need to increase gender representation among the sample to capture more variation of experiences and perceptions of the phenomenon, which was communicated to participants following their interviews. Both purposive sampling and snowball sampling were advantageous for this research, as they helped to identify participants who could provide valuable insights into their experiences of resistance within the context of social justice-oriented medical education.

To ensure an adequate representation of variation for phenomenography, this study initially aimed to include approximately 10 to 30 interview participants in order to capture a wide range of perspectives and experiences for phenomenographical analysis (Stenfors-Hayes et al.,

2013). Similar to grounded theory (Glaser et al., 1968), phenomenography uses the concept of saturation to determine if and when enough data is collected to answer the research question. Based off this conceptualization, saturation was considered reached when no additional conceptions of the phenomenon were discussed in the interviews.

All prospective research participants were reached out to over email by the lead researcher of the study (AA) between September 28, 2023 and December 3, 2023.

2.3 Data Collection

Interviews are a useful data source for case study research as outlined by Merriam (Merriam, 1988). In addition to using multiple data sources, case study research leverages different groups of informants to deepen the researchers' understanding of the case. I conducted individual semi-structured interviews with first-year medical students and faculty members to collect empirical data surrounding the phenomenon of student resistance to social justice teaching.

An interview guide (Appendix C) was used in each interview and designed to include questions that could collect in-depth and detailed information on the participant's experiences with the new curriculum, their perspectives on social justice education in the medical curriculum, the ways in which they resist or adhere to social justice education, and how it affects their learning and relationships with peers and faculty members. The interview guide underwent modifications both during and between interviews, adapting to the data gathered and emerging insights in alignment with the iterative nature of phenomenographical research (Appendix D) (Akerlind, 2005). The interviews started with an opening question to build rapport, followed by questions on resistance

to social justice education. The interview ended by asking the participant if they would like to add anything to their responses or the transcript and letting them know about the snowball sampling process.

All interviews were conducted over Zoom, a virtual video conference platform, and transcribed using the audio recording of the meeting. Each interview was scheduled for an hour and facilitated by the lead researcher (AA) and occurred between September 29, 2023, to December 12, 2023. Before the interview, all participants were asked to review the Consent to Participate form (Appendix E), and their verbal consent was audio recorded and included in the final transcripts. Recordings of the interviews were securely stored in an institution-approved server approved by the Research Ethics Board, adhering to the University's established data storage and retention policies. A professional transcription service (Rev) was utilized to transcribe the audio recordings of the interviews. In order to ensure anonymity, all data was anonymized before data analysis by using pseudonyms for participants and redacting personal information that can identify participants, such as their names and personal affiliations. Following transcriptions, each participant was sent the anonymized version of their interview transcripts for review, and given an opportunity to redact or modify data from their transcript. Participants were given a week to review their transcripts before each was formally uploaded into the data analysis software, MAXQDA Analytics Pro (24.1.0). As a token of appreciation for their time, participants were given an honorarium based on 15-minute increments of their interview duration, ranging from $25-100. The honorariums were distributed electronically through the University of Calgary's institutionally licensed EverythingCard platform.

Although saturation was considered to have been reached following the fifteenth interview, eight more interviews were conducted to ensure diverse opinions were captured.

2.4 Data Analysis

Merriam considers data analysis as *"the process of making sense out of the data…[which] involves consolidating, reducing, and interpreting what people have said and what the researchers have seen and read – it is the process of making meaning*" (Merriam, 1998, p. 178). In alignment with Merriam's (1998) approach to data analysis for case study research, data were collected and analyzed simultaneously. The data were analyzed to identify ways in which information from different sources, including medical students and faculty members, advances our understanding of the case. As a part of the reflective process, memoing was also used during the duration of data collection and analysis to capture emerging insights, including common findings or 'themes' which became apparent across participants (Creswell & Poth, 2018). Merriam (2009) outlines various steps for data analysis, starting with open coding while also memoing about repeating codes across interviews to start putting codes under themes, which she describes as the process of 'sorting categories'. Worth noting, she argues that the number of categories should be manageable and make it easier to communicate findings to readers (Merriam, 2009). According to Merriam, researchers should reach a level of analysis where they reach an abstract understanding of the phenomenon (Merriam, 2009).

In addition to case study as the methodology for this research, I used phenomenography as an analytical lens for this research. Phenomenography as a qualitative research approach aims to identify variation in experiences, conceptualization, and understanding of a phenomenon within

a sample population (Marton, 1986). It aims to uncover all understandings people have of specific phenomena and categorize them to explain how they are structurally related (Marton, 1986). The outcome of phenomenography is a structured set of logically related categories that describe the variation in how a phenomenon is experienced or understood (Marton, 1986). These categories of description are collectively known as the 'outcome space'(Akerlind, 2005). Additionally, phenomenography adopts a non-dualist ontological perspective as persons and the world are considered inseparable (Stenfors-Hayes et al., 2013). This perspective acknowledges that the way a phenomenon is experienced is a relation between the person and the phenomenon (Stenfors-Hayes et al., 2013).

Applying a phenomenographical approach can allow for an exploration of how individuals make sense of situations, shaping their subsequent actions. In contrast, *phenomenology* seeks to explain the structure and meaning of a phenomenon as experienced by individuals (Giorgi, 1999). While phenomenology emphasizes individual lived experiences, phenomenography allows for a comprehensive analysis of the *differences* in attitudes and reactions among a collective group. Additionally, it was important to closely examine the local features and nuances of resistance within the new curriculum due to the unique circumstances surrounding it.

While there is no singular agreed-upon analytic procedure for phenomenography research (Ashworth & Lucas, 2000), discretion is granted to the researcher surrounding how best to conduct the analysis in a way that unpacks variability (Beaulieu, 2018). However, certain principles must be upheld during phenomenographic data analysis such as iterative analysis, attempting to uncover collective meanings rather than individual meanings, and identifying the

variations and relations between participants (Akerlind, 2005; Bruce, 1999; Han & Ellis, 2019; Yates et al., 2012)

Marton (1992) offers a four-stage approach to phenomenographic data analysis, starting with the identification of data to the phenomenon being described, sorting the data into "pools of meaning", contrasting and categorizing the data, and finally, reliability checking. During the identification stage, the data are identified and described, while being reviewed by the researchers (Marton, 1992).

Early on, my supervisor (AB) and I approached the first stage of the analysis by familiarizing ourselves with the data through close reading and listening through the interview transcripts. This offered a deeper sense of the breadth and depth of the data as it relates to the central phenomenon of interest (Han & Ellis, 2019). This process included iterative reading and re-reading of transcripts to identify similarities and differences in participant responses (Entwistle & Marton, 1994). Following this, a reduced data set of four interview transcripts was used to begin looking for emerging categories and codes through a process of inductive line-by-line open coding. This reduced data set was picked strategically to include interviews that showcased different experiences of the phenomenon. Open coding is a process of inductively creating codes that describe the data by going through it line-by-line or paragraph-by-paragraph. It is important to note that the codes that were developed at this stage were influenced by the context and values of both the participants and the researchers. The data were then sorted into different "pools of meaning" based on similarities, contrasted, and categories were generated with descriptions (Marton,1992). We met frequently to review the codes together, discuss the importance of the

codes to the research question, and how the codes captured the variation of perspectives and experiences within the data. These discussions helped to compare, contrast, re-analyze, and narrow down the codes and develop an initial coding framework to categorize the codes and synthesize the information (Blummer et al., 2013). Once an initial coding framework was developed, it was used to deductively code six interview transcripts, including the initial four transcripts and two additional ones, to assess whether the coding framework would be able to capture the breadth and depth of themes across a diverse range of interviewees' responses. My supervisor and I met again to review and finalize the coding framework. The revised coding framework included codes and subcodes to capture modes of resistance (communication/complaining, and behavioural changes), focus of resistance (personal factors, curriculum structure, and content), triggers of resistance (educational factors, scheduling and timing of HE-SC sessions, triggering content), underlying reasons for resistance (psychological factors, bias and prejudice, content sensitivity, professional identities), and contexts of resistance (social environment, and learning environment). This coding framework was then used to code the remaining seventeen interview transcripts.

Data were further analyzed by the assigned code. Participate quotes were summarized using MAXQDA's Summary Table function. This allowed us to create summaries that reflect the data for each axial code. This process helped distill key insights from the data for further analysis in addition to facilitating a deeper understanding of the data.

Using the MAXQDA's Summary Grid function, meta-summaries were written that would capture the essence of the data, providing a comprehensive overview of the themes and codes

from the earlier stages of analysis. The creation of meta-summaries supported the development of the 'outcome space' described in Chapter 3.9 as one of the key outcomes of phenomenography research and discussed further in the following chapter.

2.5 Strategies to Optimize Reflexivity, Rigour, and Trustworthiness

It is essential to recognize the central role and influence of the researcher on the process and outcomes of inquiry and the importance of reflexivity and positionality as my lived experiences and identities shape this research (Holmes, 2020). My positionality as an immigrant, racialized woman of colour, settler, current graduate student, and future medical student at the University of Calgary significantly influences my research approach and analytical perspective. These intersecting identities have shaped my understanding of advocacy and social justice across various aspects of my life, including my own biases. It is important for me to acknowledge my privilege as a graduate student and researcher, as it plays a crucial role in addressing power dynamics and informing the lens through which I approach my study. Throughout my life, I have encountered and resisted certain ideologies and institutions that conflicted with my commitment to social justice principles and personal beliefs. Consequently, I find it intriguing to explore why and how individuals may resist social justice education, as it stands in direct contrast to my own values and what I deem necessary for inclusion in medical school curricula and society more broadly. To minimize bias, I recognize the significance of remaining aware of my own perspectives throughout the research process. As an aspiring physician and educator, it is essential for me to be prepared to understand and objectively approach diverse viewpoints, including those that differ from my own. Leveraging the formal sociological training I completed

during my undergraduate degree, studying resistance would enable me to apply a social lens to my analysis and deepen my understanding of the subject matter.

At the time of this research, I am a graduate student at the University of Calgary, in the process of completing my Master of Science degree specializing in Medical Education. Having previously applied and offered admission to medical school in Calgary in Spring 2023, I am enrolled in the Leaders in Medicine program, which is a joint degree program that allows students to complete graduate studies alongside a medical degree. At the University of Calgary, I am affiliated with the Office of Health and Medical Education Scholarship (OHMES), which connects me to a network of education scholars from whom I can seek assistance and support.

Prior to starting my graduate degree, I completed a Bachelor of Health Sciences in Health and Society, with a concentration in Sociology at the University of Calgary. This degree allowed me to partake in a number of research initiatives and research-based courses in health sciences, and sociology throughout the course of my studies. My educational background prepared me to understand and address social justice within various contexts, which continues to be a focus of my research to date.

My position as a graduate student, researcher, and future medical student might also influence my research since I am working directly with medical students who may become my future colleagues and mentors. While I am conducting interviews, I am concerned about how students may react or respond while knowing what my research is about. Since I am looking at resistance, I wonder if students will mask their resistance in my presence, which could impact my findings.

Another concern I have is whether people will take me seriously as a new graduate student who has only recently finished their undergraduate studies.

To promote rigour and reliability, I kept a detailed audit trail in MAXDQA to document decisions that were made throughout the data collection and analysis process (Creswell & Poth, 2018; Merriam, 1998; Yazan, 2015). My thesis supervisor (AB) was also active in the research process as an investigator as well, so investigator triangulation would increase reliability and internal validity by discussing and confirming interpretations of the data (Yazan, 2015). Memoing and reflexive activities such as meetings with the thesis committee and my thesis supervisor throughout the data collection and analysis process also promoted reliability (Yazan, 2015). Following each interview, I reflected on the interview, and wrote short entries to make sense of the topics and key points participants would discuss, wrote about my feelings and thoughts throughout the interview, while also synthesizing the key takeaways. Additionally, MAXQDA memo functions were utilized throughout the data familiarization and analysis process, and were referred to across all parts of the analysis.

Since this study involved human participants, it was imperative to conduct this research in accordance with the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2). Ethical approval was required and granted by the University of Calgary's Conjoint Health Research Ethics Board on September 26, 2023 (CHREB 23-0922) (Appendix A). As a part of this study, all participants received an initial e-mail invitation (Appendix B) with the study information and consent form attached (Appendix E). This attachment provided an overview of the objective of the research as well as a comprehensive overview of the rights and

potential risks for participants. Prior to the commencement of each interview, the interviewer (AA) reviewed the purpose of the study, reiterated that participation was voluntary, reviewed the rights, and answered any questions to ensure participants felt fully informed. Participants were reminded that they could choose not to answer any questions, stop the interview at any time, and withdraw from the study up to one week after their interview. Consent was audio recorded and included in the final transcripts. Participants were also offered an optional debrief following the interview once the audio-recording device has been turned off, which provided an additional opportunity to answer any additional questions from participants. To protect participant confidentiality, transcripts were anonymized, and identifying information was removed before analysis. Once the transcripts were anonymized, participants received a copy for review. Within one week of receiving their transcript, participants could notify the research team if there was any content they wished to remove or if they desired to withdraw from the study before transcripts were uploaded to MAXQDA for analysis.

To further ensure participant confidentiality, the results chapter includes quotes that have been reviewed for potential indirect or deductive disclosures of identity. Before uploading the thesis to the University's repository - a public domain - sensitive portions of quotes will be redacted to prevent identification. This measure can further protect participant privacy without affecting the integrity of the findings. The full, unredacted quotes are provided to the thesis examiners for examination purposes.

Chapter Three: Results

This chapter presents the results of a case study examining student resistance to social justice education at the University of Calgary during the inaugural block of its new curriculum. I begin this results chapter by describing the participants of this study and follow this with a narrative description of a specific HE-SC session to showcase the variation of behaviours and reactions during sessions dedicated to social justice-oriented education. The chapter then delves into the various forms of student resistance, exploring underlying reasons, focus, triggers, and contextual factors that influence resistance to social justice education. Overall, the chapter aims to provide insights into the complexities surrounding student engagement and resistance within the context of social justice education.

Throughout the course of the study, I identified a total of 56 individuals through both initial and snowball sampling. Of the 56 individuals, 48 were first-year medical students at the University of Calgary, and 8 were faculty members affiliated with the new pre-clerkship curriculum at the University of Calgary. Among the medical students, 35 were contacted by the research team (initial sampling = 3, snowball sampling = 32), and 19 (initial sampling = 3, snowball sampling = 16) consented to participate in the study. Thirteen students were not invited to participate for two different reasons. Initially, I aimed to capture a diverse range of perspectives, specifically gender representation, which was prompted by an initial imbalance of more women participants. Secondly, data saturation was discussed by the research team after interview eighteen, and the team agreed that no new insights were becoming apparent following the fifteenth interview. Although eight interviews had already been scheduled at that point, sampling and recruitment were discontinued, and subsequent individuals that were identified as prospective participants

were not contacted. From the eight faculty members and educators identified through initial and snowball sampling, all were contacted by the research team (initial sampling = 3, snowball sampling = 5), and four faculty members (initial sampling = 3, snowball sampling = 1) consented to participate in the study. In total, 23 individuals (initial sampling = 6, snowball sampling = 17) consented to this study and participated in a semi-structured interview between September 29, 2023, to December 12, 2024. To promote anonymity, interviewees are referred to only by a letter and number to indicate if they were a student (S) or faculty (F).

This sample of participants represents a diverse cohort in terms of gender identity, racial identity, and lived experiences. Additionally, the sample included both individuals from Alberta and outside of Alberta, reflecting the diverse backgrounds of the medical student population. Following the first two interviews, the original interview guide (Appendix C) was revised to include a question (Appendix D) to ask individuals about their personal backgrounds and lived experiences regarding equity, diversity, and inclusion (EDI). The responses to this question were not central to the analysis, however, I felt it was important to ask to get individuals to reflect on their lived experiences and to better understand their perspectives. The responses to this question are summarized in Appendix G.

The students' roles within the medical school community varied. At the time the interviews took place, some students were actively involved in student leadership positions, extracurricular activities, and advocacy initiatives relating to health equity and social justice. On the other hand, some students had limited exposure to social justice content beyond the RIME curriculum. However, they shared a passion for the field of medicine and a commitment to becoming future

physicians. Additionally, the students also had varying exposure to social justice content before starting medical school. Some had background knowledge or lived experience of the topics covered during HE-SC sessions, whereas others were learning about these concepts for the first time through the curriculum. The range of experience and knowledge of concepts covered in the curriculum among the students allowed for a deep exploration of the various factors influencing student resistance to social justice education during medical school.

The faculty members involved in this study encountered student resistance within their respective educational roles in the new curriculum, offering a different perspective surrounding the student reactions to the HE-SC curriculum compared to the students themselves which enabled further understanding of student resistance to social justice education. Their perspectives were especially valuable in triangulating the situations and instances of resistance to social justice education that were described during interviews with students. Many of these instances of student resistance overlapped during the interviews, indicating certain situations that distinctly stood out to students and faculty as resistance to social justice education.

3.1 Introduction to Case Study Findings

This section will encompass a presentation of case findings to describe the case under investigation, before unpacking the nuances and variability of the phenomenon of interest. Central to this is the identification of commonalities in resistance across different sessions and topics. Participants discussed a range of sessions, including those explicitly focused on social justice topics, as well as others where social justice was interwoven into the sessions. Notably,

sessions that were dedicated solely to social justice education were the focal points of resistance, compared to sessions that had social justice concepts integrated. According to participants, the social justice-focused sessions were primarily large group sessions and covered various topics including weight bias, substance use, addictions, implicit bias, and more (Figure 4 – Topics and Sessions Prompting Student Resistance). Sessions that had social justice concepts integrated typically occurred during small group tutorial sessions or clinical skills/anatomy sessions.

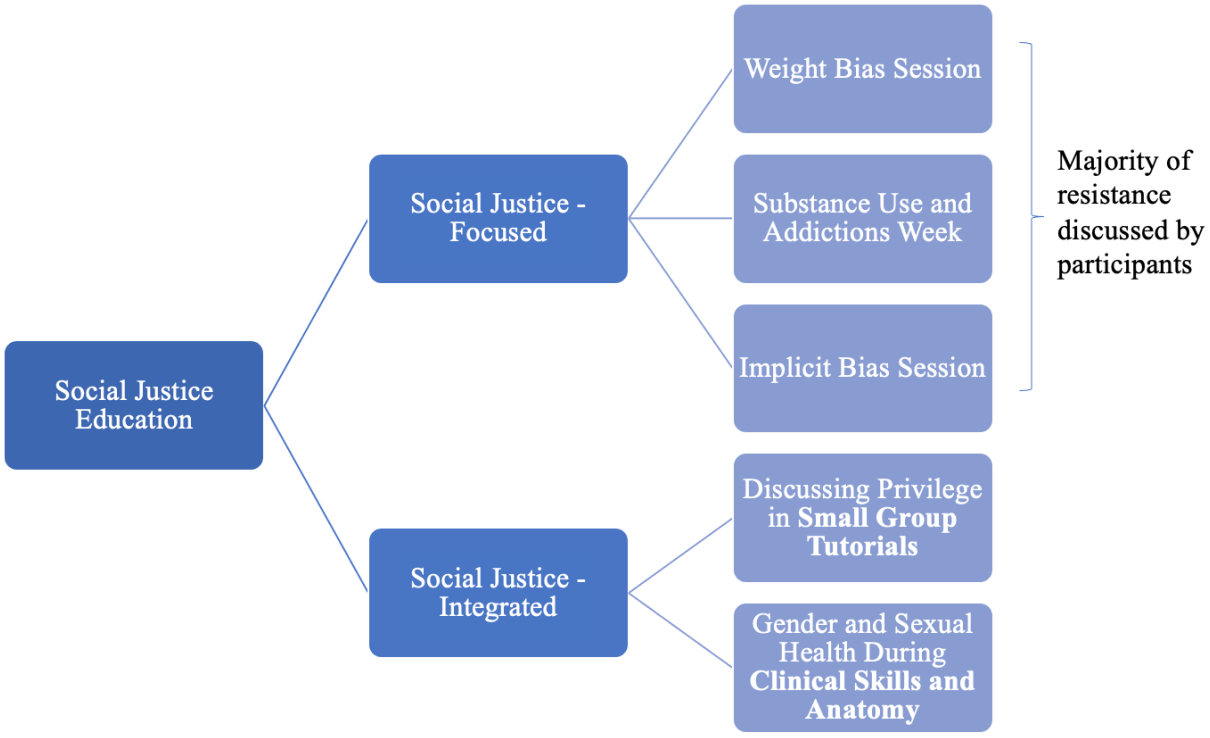


Figure 4 Topics and Sessions Prompting Student Resistance

During sessions that specifically addressed social justice issues, students displayed varying degrees of skepticism, discomfort, and disagreement. Participants mentioned how students would publicly and privately question the legitimacy and relevance of the social justice content, expressing doubts about its applicability to their future careers as healthcare professionals. Participants also suggested how other students would demonstrate more passive resistance by withdrawing and disengaging from discussions during these sessions or choosing not to attend them.

> *"In a large group setting, the big classes that we have, I'm too scared to ask a question or I feel inferior or a little embarrassed that it seems like all my peers understand this topic and I don't understand it. I think I shut down a little bit. I pull out my phone, but I just remove myself from the lecture in that way" (S21).*

Furthermore, students' responses to these sessions were often influenced by their personal ideologies, experiences, relationships with peers and faculty, and wider sociopolitical contexts.

Students' feelings of unease and discomfort were compounded by logistical challenges such as technological constraints and unfamiliarity with the new curriculum, which heightened resistance. Over the course of the study, it became more apparent that resistance was not limited to specific sessions but permeated various elements of the overall learning experience, from large group discussions to social media group chats. Through the synthesis of data, a wide range of factors were identified that influence the presence and nature of resistance, which are delineated below.

3.2 Understanding Variation in Student Engagement with Social Justice Education

Various events unfolded over the course of this study that highlighted the complexities of student resistance. As the analysis used a phenomenographical approach, I will delve into a commonly discussed teaching session on Weight Bias in Medicine to demonstrate the variability and complex nature of student resistance. The original goal of this session was to explore the impact of weight-based discrimination and bias on patient care. During this session, a guest lecturer was invited to raise awareness surrounding the prevalence of weight stigma in healthcare settings and to challenge the existing stereotypes towards patients with obesity. Despite the aim of the session to foster critical reflection among the students, the session and guest lecturer were met with resistance from the students in various ways.

Attendance was mandatory for all in-person sessions, and students were required to sign in to each session for attendance purposes. This set the stage for observed instances of resistance. Student participants described resistance in how their peers challenged the guest speaker and disengaged from the session:

> *"It really challenged their previous idea that obesity equals unhealthy. And some people chose to fight back and verbally engage in the conversation, which was great. But then some people decided like, 'Oh, this doesn't align with my ideas, so I'm just going to start typing on my computer or doing stuff on my laptop unrelated to the content.'" (S05)*

> *"(the) class was empty. People just come in, sign their names and leave…because I don't think that the obesity lecture was very much evidence-based or very well communicated." (S03)*

Resistance was in part attributed to concerns about the legitimacy of the content and presenter. Many felt the presenter *"was just talking about their experience rather than using evidence-based material to present the points"* (S21). Participants recalled how the presenter discussed the validity of Body Mass Index (BMI) as a measure of health claiming there is no science to

support it because BMI was not developed by physicians for medical use. In response to this, participants observed students actively disputing the information. One participant recalled how students in the class voiced that the content was *"inaccurate, it wasn't true, how can you not tell a patient to, 'lose weight'? Some people left the session because they said that this was not true information"* (F19). Another participant felt that the content *"seemed a little manipulative of the data they were trying to show to say that it's not even though there are amounts of literature to say otherwise"* (S22). Moreover, participants recalled how students expressed confusion during the session as the content felt disconnected from what they learned a week prior about the impact of weight on diabetes. Students were also engaging with each other over social media during the session *"sending things about how wrong it was and countering it in the class group chat as the discussion is happening"* (S10). Therefore, some students were actively engaged by challenging the presenter and asking questions, and others resorted to disengaging by leaving the session, or going on their devices.

Some participants were disturbed by the way their peers were reacting to the content, claiming that they felt as if their peers *"seem to take this as a deeply personal attack on their values, and beliefs, and mostly, their internalized hatred of fat people"* (S01). The reactions of their peers led some participants to remain silent during this session because they felt unsafe given their own lived experiences and relationship to the content:

> *"[redacted] and I was just like, I am going to keep shut. I'm just going to sit here. I'm not going to say a word because I know right now that as this conversation is happening, there are multiple people in the class that are vehemently against it… So it's certain things like that where I'm like that, it's just a bit too close to my human to be able to engage with it." (S10)*

One participant noted how the rising tension during this session ultimately *"left some people pretty hurt"* and created a divide in the class because there was *"an us-versus-them dichotomy that happened"* (S22). Participants recalled a student asking a question during the session that some perceived as indicating an implicit bias towards fat people. Reactions to this question varied as some students reacted negatively, while others empathized with the student, claiming that the student asked the question likely because they were unaware, yet *"[redacted] you don't want to be associated with the fat phobic person"* (S03). Observing these strong reactions and opinions that students had during this session appeared to have a ripple effect, as participants described how it made students reluctant to speak or engage in further discussion due to their fear of *"not wanting to speak out of line accidentally"* (S09) and *"saying the wrong thing and getting in trouble"* (S14). Participants were worried about how others would perceive them or how their peers would react if they were to say something that may not necessarily align with the perspectives of their peers. Due to this fear, some participants explained that they would rather keep their opinions to themselves and disengage from the discussion:

> *"I don't want to show that I do have this bias or that I'm not well-versed in this area of social justice. I don't want to expose myself. I think it's a fear of being called out by the rest of the class." (S02)*

Participants also highlighted the positive outcomes of the session, as it made some students more aware of their personal resistance to the content and allowed them to take action by learning more about weight bias in medicine.

> *"It's just taking the time to sit with my discomfort and my resistance to educate myself around it, even though I felt really uncomfortable. I didn't want to necessarily engage at first, but talking to other students and looking at the material again made me educate myself about this issue and progress forward in a really great way. So, I think if the discomfort and the resistance are created in a way where it's not something in which I feel very negative about, it's not something which I feel unsafe about, I think it gives me the space to sit and reflect on my thoughts and educate myself around this issue and overcome the initial resistance that I felt." (S12)*

The narrative accounts of resistance during the Weight Bias in Medicine session were an important focal point during the interviews that participants often discussed, yet this instance alludes to the complexity and variation of student resistance to social justice content. Levels of engagement from students varied during the session. Opinions also varied as some students were skeptical of the content, while others trusted the content and felt the session was well executed. The diverse responses to this session alone showcase the variation in acts of resistance due to student comfort levels, personal beliefs, and lived experiences. Despite these challenges, the session was still successful in engaging some students and allowing critical reflection on one's personal biases.

3.3 How do Students Resist Social Justice Education?

This section will explore the diverse ways students resist social justice education, which include cognitive, emotional, and behavioural dimensions of resistance. These responses offer valuable insights into the nuanced ways in which students engage with and navigate the educational content and pedagogical approaches associated with HE-SC sessions.

3.3.1 Cognitive Responses

In terms of how students think about social justice education, participants described a range of responses that include different viewpoints and critical inquiry. Some participants said that students would question the accuracy of the social justice content, and the biases of the person who is teaching: *"A few students who were calling on some of the speakers' figures, saying that they didn't quite explain the figures, and that they came from a very biased perspective"* (S06). Another participant described how some of the HE-SC sessions were panels of individuals sharing their personal stories, and felt that these sessions were not evidence-based, which leads to their reluctance: *"I think we have a tendency to question a lot of things and if you can back it up by evidence-based, then we'd be less reluctant"* (S21). Conversely, other students actively sought to enrich discussions with alternative viewpoints and did more research on their own, which helped them understand the content better. For example, one participant mentioned how *"listening to the person present, talking to other students around it…and also looking at the papers that the presenter shared"* allowed them to understand those who held different perspectives better (S12). Following the Weight Bias in Medicine session, participants stated that they felt the need to fact-check and research the utility of BMI in clinical care with other educators and their peers. Therefore, there was a more critical engagement with the content that was presented and a desire for a more comprehensive and balanced discussion to address any biases. This variation underscores the multifaceted nature of cognitive resistance, where some students are more skeptical and others a desire for comprehensive discourse. Simultaneously, students may engage in critical dialogue by challenging prevailing narratives both during sessions and through post-class discussions. The participants shared the length that some students were going by sharing articles with one another in group chats that presented evidence to counter the points being made by the presenter during the Weight Bias in Medicine session.

By offering different viewpoints or challenging the information presented, students participated in shaping the discourse, indicating a nuanced approach to resistance.

3.3.2 Emotional Responses and Complaints

Emotional discomfort played a significant role in how students resisted social justice education, which led to a range of emotional responses and complaints. During a HE-SC session dedicated to *Implicit Bias*, students were instructed to use the Harvard Implicit Bias Tool to assess the presence of any implicit biases. Participants noted the emotional unease among students as they navigated the assessment process. Participants noted how students exhibited reluctance to acknowledge their implicit biases while using the tool.

> *"They gave us the survey that I think Harvard made to see if you have an implicit bias and then people would be like, 'Oh yeah, the thing online said, I have this bias, but I definitely don't.' There was definitely I think resistance to being like, 'oh, I do have an implicit bias.' ...I think people are more resistant to addressing their own implicit biases, at least in that workshop." (S02)*

In this scenario, the participant mentions that the students' emotional discomfort regarding taking the exam about implicit bias made them question and complain about the tool. Participants similarly discussed how Mentimeter – an interactive presentation software for polling audiences – was used to garner comments and questions from students during large group sessions, was also met with complaints after being used for HE-SC learning purposes, with students expressing doubts about the value or impact of these interactions:

> *"So I now don't participate in [Mentimeter polls] because I find it useless because I find people just use it to complain and I don't participate. It's not going to improve patient outcomes. It's not going to improve my outcomes. It's not going to improve anything. I'm not going to do it." (S03.*

Some students also described how the HE-SC sessions felt performative because they were only teaching the content at a surface level, or that these topics were only being taught to fulfill the needs of government bodies:

> *"It seems like something they just had to do to please some kind of equity, diversity and inclusion committee, to tell the government, 'Yeah, we're doing the right things. Yeah, we've put them through this, that's fine.' That's what I mean kind of by checking boxes, like you can write out a form, yes, you did this so you can move on to the next step in a greater, whatever the bigger agenda is." (S22)*

Some participants mentioned how they felt they were already well aware of the concepts being taught, leading to feelings of frustration or discontent among students. In response, participants described how students complained to their peers, student representatives, educators, or institutional channels via course feedback or directly *"sending emails to the UME"* (S18), expressing their dissatisfaction with the educational approach or delivery of the HE-SC session. These complaints served as a means for students to voice their concerns and advocate for changes that align more closely with their expectations and needs.

3.3.3 Behavioural Responses

Students also exhibited a variety of behavioural responses that reflected disengagement and defiance. One common behavioural pattern that participants described were varied attendance behaviours, where students may choose not to attend HE-SC sessions or leave early into the session. One participant said how they *"know quite a few people will elect to skip class when they know we have a social justice-based session. Or, they will choose to schedule a shadowing during those sessions instead because they feel that that's not something that's going to benefit their medical education"* (S08). This behaviour was more common approaching exam periods

because students would prioritize studying for assessments rather than attending HE-SC sessions. Participants also mentioned that during HE-SC sessions, students engaged in unrelated activities on their devices, such as sending emails or completing other coursework, reflecting a lack of interest and engagement in the content being presented. Students would also sit in different sections of the class during HE-SC sessions compared to those more focused on biomedical content. For example, they would sit at the front during sessions with a more biomedical focus and sit closer to the back during HE-SC sessions, indicating potential discomfort or disengagement with social justice subject matter. One participant described the actions of their peers who, during Indigenous health sessions, *"opt(ed) to sit in the back of the lecture hall so that they can watch videos on their laptops and do other things. Since we have mandatory attendance, they will check the calendar and say, 'Oh, perfect, I'm going to read. I'll download an e-book' and they do something else"* (S08). The participant clarified that in this specific case, the students were *"not against the sessions themselves, but they just don't have the same willingness to participate"* (S08). It is important to note that students' willingness to engage in the sessions can be influenced by a variety of factors beyond just their personal biases and feelings toward social justice topics.

3.4 Focus of Resistance

In this next section, I describe the focus of student resistance, examining the specific elements that students resist. In unpacking the focal points of resistance, I want to highlight how curriculum structure, and content delivery might contribute to student resistance.

3.4.1 Curriculum Structure

The structure and organization of the curriculum itself was a source of resistance for students, specifically due to issues such as disorganization, and a lack of communication about the curriculum. Participants highlighted the inconsistencies in material delivery, such as a lack of closed captioning on some videos, which led to feelings of frustration and disengagement from the content.

> *"It's insane the amount of tech issues that we've had and closed captioning and stuff on the podcast and the lack of consistency. So, it's more like structural components of building a program that students are actively fighting against." (S05)*

> *"Communication wasn't where I thought it would be. It seemed like not enough was created in advance to be ready to launch a new curriculum. And so you kind of got the feeling at least in the early weeks and still a little bit up to now that they're making things up as they go. They just didn't have enough time to prepare. But they were forced to launch." (S22)*

Misinformation about the curriculum further exacerbated resistance. A participant mentioned how *"everyone had different expectations in terms of what classes were going to look like. What the curriculum was going to look like. What we were covering when. Who was coming in"* (S18). Given the perceived lack of information available about the new curriculum, students *"didn't necessarily trust [the curriculum] because a lot of our actual systems and things like that were clunky and not working all that well, and our communications weren't great. So…there was some collateral damage to some equity stuff"* (F23).

3.4.2 Delivery of HE-SC Sessions

Resistance specifically in response to various Health Equity and Structural Competency (HE-SC) sessions was common, yet often revolved around perceived shortcomings in its delivery and relevance from students' perspective. The lack of alignment between HE-SC and biomedical

content led to feelings of surface-level engagement and irrelevance to future clinical practice. Relevance and contradictions in the formal content further underpinned resistance. For example, Specifically, one participant discussed the Weight Bias session noting:

> *"I was struggling because the week before I just watched a podcast where they said, 'One of the risk factors of heart disease is obesity.' It was like I felt the medical side was teaching us one thing, but the social-justice side was teaching us a different thing, and I was trying to reconcile that in my mind." (S18)*

HE-SC sessions were also critiqued by some participants for creating unclear boundaries for their professional identity, blurring the scope of practice between physicians and social workers. Participants noted instances when biased perspectives from educators or guest speakers during the HE-SC sessions left them feeling unsatisfied with their learning, such as the Weight Bias in Medicine session. Mandatory in-person attendance required for HE-SC sessions, coupled with a perceived lack of practical application, further contributed to resistance.

3.5 Triggers of Resistance to Social Justice Education

This section will highlight the catalysts that intensify students' inclinations to resist social justice education, which included assessments, scheduling and timing of HE-SC sessions, and sensitivity surrounding the social justice content.

3.5.1 Assessment

Resistance to social justice content may also arise due to challenges in assessment and evaluation methods. Participants described feeling demotivated by what they perceived as a lack of proper assessment and reward systems for social justice topics, leading to lower interest in these areas. The primary assessment strategy that was discussed by participants during the course of this

study was *Cards*, a question bank used by the UME program comprising questions that align with the content that they are learning each week. Cards questions are in the form of multiple-choice questions, true and false questions, and select all questions, and the question bank is utilized for both formative and summative assessment. According to participants, the overreliance on multiple-choice questions through Cards and the structure of their examinations failed to fully assess students' understanding and growth in social justice issues, and further exacerbating resistance towards HE-SC content.

> *"I don't think concepts like social equity and determinants of health can be covered in a multiple-choice Card. A lot of the students right now are memorizing the Cards as their way to score a 100% on the exam…I don't think it's hit a lot of us that in reality, Cards are not reflective of one, the medical licensing exam, or two, how patients present. I don't think knowing that 15.9 million people suffer food insecurity in Canada will be useful…but having it be part of the cards, it's just encouraging memorization, rote memorization that negatively impacts student study habits, and motivations to do well in medicine. Because doing well no longer means getting an A, doing well means being able to take care of your patients in 10 years." (S17)*

Participants also claimed that some students would prioritize exam preparation over participation in discussions during HE-SC sessions because the content covered during these sessions was seldom mentioned in exams.

> *"You can see this when we have a health equity or Indigenous health lecture the week of an exam and half the class decides not to go, I think it's just really telling that because this stuff isn't really covered on an exam, the students aren't putting it as a priority in their minds." (S09)*

Ultimately, the minimal extent that HE-SC content was incorporated in Cards, and the examinations that their progression in pre-clerkship hinged on, further undermined students' motivation to engage with HE-SC material.

3.5.2 Scheduling and Timing of HE-SC Sessions

Another trigger for resistance to social justice content included the scheduling and timing of the sessions which foregrounded HE-SC topics within the curriculum. According to participants, poor scheduling and timing of HE-SC sessions overwhelmed students during weeks when they felt there was too much social justice content, and not enough biomedical content. The participants who perceived the integration of these topics within the broader curriculum to be inadequate, particularly during weeks lacking medical content, felt that the curriculum failed to showcase the importance of structural competency alongside traditional clinical content. Lengthy lectures and sessions dedicated solely to HE-SC topics led to disengagement.

> *"A lot of these sessions are very long, and I just can't focus for two and a half hours on something. I feel so bad because I want to be able to give it my attention, and it's a very important topic as I've been saying, but it's just the way that they're delivering the content hinders my ability to concentrate, and actually absorb what they're saying." (S17)*

Participants emphasized that the HE-SC sessions that lasted 3-4 hours were far too long, which made students more prone to skip these sessions, or do other activities on their devices such as play Cards. This was more common during periods approaching assessments that would utilize Cards, such as end of unit exams. Participants further expressed frustration describing how the students who would skip HE-SC sessions to prioritize doing Cards would end up finishing examinations faster than those who would attend and engage in all HE-SC sessions.

3.5.3 Content Sensitivity

Resistance to social justice content also came up when the subject matter was seen as sensitive and overwhelming, especially among students who have previous lived experience in the topic

area. Participants found discussions on sensitive issues like anti-fat bias and harm reduction challenging to engage with due to the emotional toll and discomfort associated with these topics. Similarly, during a week that was dedicated to learning about substance use, many students found it emotionally overwhelming because of their personal connection to the topic:

> *"It's not creating a super-open environment for everyone to go and have these conversations. Sometimes these conversations are quite sensitive and quite tough. Specifically, I'll reference the addictions example. It was an extremely emotional and powerful session but it was, again, done in front of 180 people. Different people are reacting differently." (S18)*

The lack of preparation, debriefing, and warning for such discussions made it even more difficult to engage with sensitive topics, hindering students' ability to engage during the sessions and ultimately absorb the material.

3.6 Underlying Reasons for Resistance to Social Justice Education

This section will explore the underlying reasons for resistance to social justice education among medical students, and describe why students ultimately resist.

3.6.1 Discomfort and Guilt

Students' resistance to social justice education resulted due to feelings of discomfort and guilt based on various factors. These feelings were prevalent for students who felt they lacked knowledge about social justice issues, or for those with preconceptions or assumptions regarding the social justice content that negatively impacted engagement during these sessions. For instance, a participant claimed that they felt uncomfortable engaging with their classmates who they perceived as more aware and passionate about social justice issues:

> *"These people have now taken it upon themselves to be self-proclaimed social justice warriors in the class, they either knowingly or unknowingly will dig themselves into certain holes or create reputation for themselves that, I'll be honest, it's made it harder for me to engage with certain individuals because I don't want to get into a conversation. If you're going to keep bringing it back to certain topics, I don't want to talk to you, I don't care." (S22)*

Participants described struggling with navigating personal privilege and how that related to the content, in addition to unfamiliarity with topics related to EDI, leading to a sense of unease during discussions:

> *"I think another thing that's a general theme throughout all these weeks as opposed to a specific issue, it's my position in society and how I'm not directly affected by pretty much every EDI topic that we talked about. And that makes me a little uncomfortable and to feel guilty…And so that has been uncomfortable in a way to realize how privileged I am in our society and to eventually be in the position of a physician where I'm helping these people, but I don't have that personal experience. I think that is probably the most uncomfortable thing. I know a lot of my classmates come from privileged positions in society, and so learning about people who are less privileged brings a feeling of discomfort and maybe even guilt a lot of the times." (S11)*

Additionally, the challenge of acknowledging personal biases and being wrong further contributed to resistance as one participant said how they *"felt challenged and uncomfortable"* (S11) because their preconception about the social justice topic was different than what they were teaching. Discussing what many perceived as sensitive topics, such as anti-fat bias, substance use, or homelessness was emotionally challenging for some participants and added to feelings of discomfort, especially for those with lived experience. Personal experiences and trauma also play a role in shaping resistance, contributing to discomfort and disengagement from students.

> *"Sometimes it is really triggering material for some people, like substance use was a rough week for a lot of us, just because no matter what class bracket you're in, you're probably going to have someone that you know that has struggled with substance use." (S10)*

3.6.2 Fear of Being Targeted or Called Out

A fear of being targeted or 'called out' for sharing one's thoughts or opinions inhibits student engagement with social justice education and manifests as resistance. Participants described how negative past experiences, such as being shut down or corrected when asking a question or making a comment perceived by their peers to be ill-informed or ignorant, contributed to a lingering fear of judgment by peers. A participant described an instance when a student continuously corrected a preceptor who used incorrect pronouns when referring to a patient, and to see how a peer *"almost attack on a professor, makes you feel uncomfortable to want to share anything because you don't want to offend anybody and you just don't want to be wrong"* (S18). The perceived lack of a safety in large group sessions further intensified this anxiety, as students worried about the repercussions of expressing opinions or challenging prevailing narratives. Participants feared potential repercussions and consequences for speaking out as further deterring them from participating in HE-SC sessions, often referencing 'cancel culture'. Cancel culture is a broader social phenomenon where individuals or groups (including organizations) whose actions or behaviours have been deemed inappropriate or offensive are publicly condemned and social exiled (Traversa et al., 2023). Fear of social ostracism or backlash significantly impacted participants willingness to engage in discussions relating to social issues.

> *"By cancel culture, I just mean sometimes people, myself included, can be apprehensive about sharing their views because they're worried that the large group, the mass of the people are going to attack them. And I know attack is a strong word, but cancel them in the sense that not only does it completely write off your idea, but they're assuming because you have this idea that you inherently are a bad person. So it's the combination of social anxiety with not wanting to say the wrong thing, not wanting to offend people, but at the same time wanting to express your opinion." (S05)*

While small group settings offered a greater perceived sense of safety compared to large group settings, the anxiety surrounding being targeted or called out persisted, leading to a reluctance to engage and reinforcing existing beliefs.

3.6.3 Anxiety Surrounding Medical Knowledge and Clinical Competence

Anxiety about medical knowledge and clinical competence was identified as contributor to resistance among students engaging with social justice education. Many participants expressed concerns that the emphasis on health equity and structural competency may detract from their medical training, leading to fears of being unprepared for clerkship and ready to pursue their future role as a physician:

> *"I feel that that anxiety over not having enough of the medical knowledge is what's causing an impact on the social justice sessions, because I feel people do value the social justice sessions, but I feel that the anxiety and the anxious, the worry over not knowing enough is what is preventing people from actually sitting and participating." (S08)*

The apprehension students felt regarding their perceived lack of medical knowledge further fueled reluctance to engage in discussions about health equity and social justice, as participants mentioned it makes them prioritize traditional medical education over social justice education by spending the time during these sessions studying other content. Additionally, anxiety surrounding negative bias from preceptors, attendings, and physicians further exacerbated resistance, as students worried about being perceived negatively for advocating for social justice within the medical field and being the first cohort in a new curriculum that emphasizes such issues.

> *"Some preceptors didn't quite agree with the premises of RIME, and that there was some resistance to RIME and its integration of social and health equity. And that some people might think that we're getting a so-called lesser education because we're spending more time focusing on different social determinants of health, or health equity and stigma and bias, versus focusing on pure medicine." (S06)*

3.6.4 Bias and Prejudice

Resistance to social justice education could also be due to an individual's bias, prejudice, and intolerance of diverse opinions within the learning environment. Participants described their resistance to engaging with the social justice material due to a reluctance to challenge their existing beliefs or confront their own biases: *"You don't want to acknowledge that you have bias, even though we all have bias. So I think it's a little bit of different levels of discomfort among peers with acknowledging privilege and acknowledging discomfort"* (S11). Hostile learning environments, characterized by a lack of understanding of different opinions and intolerance of them, perpetuate a cycle of resistance. One participant said they *"have peers who claim truly to be like they are on top of their social justice things, but they refuse to listen. They refuse to incorporate any other perspective. They refuse to admit that they are wrong or there are things that they are unaware of"* (S03). Differences in lived experiences and perspectives, further exacerbated a perceived "*us-versus-them dichotomy*" (S22), hindering productive dialogue and understanding among the cohort and between peers.

3.7 Contextual Factors Influencing Student Resistance to Social Justice Education

In the following section, the elements embedded within the broader social environment and learning environment that exert influence on student resistance are explored.

3.7.1 Social Media

The contemporary use of social media, both personally and professionally, appears to underlie a lingering fear around the aforementioned ‘cancel culture’, impacting students' willingness to engage with discussions related to social justice. While social media heightens awareness surrounding social issues, it also causes concern about potential consequences due to cancel culture.

> *“We are in this era of social media and cancel culture, and we see that all the time. And we see the implications, I've seen situations where someone asked a stupid question or they did something that they didn't know was offensive, but was absolutely offensive. And the ramifications of that, go back to the, just Google influencer apology video…We were raised in a generation of technology and social media, where every single dumb thing that you ask or say can be recorded and used against you for the rest of your life. I think for me, that's where it stems from, because that's what I've seen.” (S04)*

Participants described how their fear of repercussions from ‘cancel culture’ was exacerbated by external incidents such as the formal suspension of a resident at another University in Canada due to a series of posts made on their personal social media advocating for Palestinians following the October 2023 attacks (White-Crummey, 2023).

> *“There was a medical resident at the University of Ottawa who was suspended for some post he made on social media. I think that fear exists in people in this discipline because they're worried they're going to lose the opportunity they've got, or their reputation's going to be damaged and they won't match with the right program through CaRMS and everything like that. I think it's in medicine and other professions to be scared of building a bad reputation.” (S14)*

Instances of professionals facing consequences for social media posts due to their personal views on social issues instill fear among students about expressing their own opinions, as they navigate the external pressures on professional conduct. According to participants, tension in the class were heightened due to the ongoing war in Gaza including the growing tensions on social media.

One participant mentioned how *"On Instagram, where a lot of this is playing out in people's stories, it's straight up vilifying the other group"* (S10). This observation indicates the importance of online discourse in shaping the way students respond to online pressures.

Social media was a platform used for student group chats, and were frequently used to continue discussions that were started during HE-SC sessions. Participants mentioned how some students would share resources about social justice content covered in class in order to support those who were finding it difficult to come to terms with the content. They also described how students comfort one another, debate, or even apologize for their actions over social media.

> *"If there is tension in the class, it will get up. It will be brought up in our Facebook Messenger group chat. Somebody will send some sort of paragraph, somebody will send a resource to help with understanding more about the social justice topic or somebody will send a resource and be like, if you want to talk about it, let me know. Or somebody will even send an apology and be like, I'm sorry for creating tension or whatever in the class." (S07)*

Therefore, social media can serve as a platform for further polarization, and even resolution, which reflects the diversity of experiences and attitudes toward social justice content within peer interactions.

3.7.2 Sociocultural Climate

Sociocultural factors also play a pivotal role in shaping resistance to social justice content, with ongoing societal issues like the Israel-Palestine conflict influencing student interactions and perceptions. A participant discussed how students are fearful of the implications of the rising tensions between students given this conflict to the point where they brought up their concerns to

the UME. One participant said how they felt *"individual politics can really override anything that's coming in social justice"* (S10). Tensions arising due to different perspectives on social justice topics showcase the complexity of navigating diverse viewpoints within the cohort. Despite institutional efforts to address these tensions, the persistence of unresolved conflicts underscores the diverse range of experiences and attitudes toward social justice content within the student body.

3.7.3 Role of Educators

Educators have considerable influence over the learning environment, shaping students' overall engagement with social justice content. Additionally, nuanced findings emerged regarding their role in either exacerbating, enabling, or mitigating resistance. S10 mentioned that if there was a preceptor *"that is of the opinion that social justice is garbage, they'll say as much and they'll encourage those harmful discussions, which is really hard."* According to participants, *"faculty models the attitudes and behaviours of what students see a physician should be, and so faculty resistance is exceptionally powerful in allowing students to also resist"* (F15). When educators exhibit overt or covert resistance to certain topics or teaching methods, students interpret this reluctance as a signal that the content is not valued or relevant, enabling student resistance.

> *"[…] faculty preceptors telling students it's not that important that you have to confirm how your patient wants their gender referred to in the communications course. And that then signals to students that, yeah, this isn't that important." (F15)*

Conversely, participants also mentioned instances where faculty were actively engaging with student resistance and effectively addressing and mitigating it when necessary. For example,

participants described instances where faculty facilitated open and inclusive dialogue, or offered guidance to navigate discussions.

3.7.4 Classroom Dynamics

The dynamics within the classroom play an important role in shaping student resistance to social justice content. Students' interactions, perceptions of safety, and sense of belonging are deeply influenced by the atmosphere created during HE-SC sessions.

> *"I don't feel safe in med school, and it's led from me trying to make friends and trying to engage with my peers to just being rather hostile to everyone unless I already feel comfortable with them. Because a lot of them are just really catty and cruel, and they play politics so much. There isn't a sense of good cohesion amongst the class at all. I feel unsafe." (S10)*

Classroom dynamics can also impact interpersonal relationships, as participants mentioned that when discussions become polarized or biased towards a particular viewpoint, it can create hostility that lingers beyond the session itself and creates perceived divisions within the class. During classroom discussions, some students tend to dominate the discussions while others feel marginalized or silenced. This imbalance does not allow for diverse perspectives to be shared.

> *"When people are on different ends of how they think the medical curriculum should be run, there's definitely tension. And again, the loudest voices are the 10% on each end of the spectrum, and those are the people who talk in large group setting. And so, these heated debates, I think that's the source of them. And that leads to a generalized decrease in camaraderie and probably interpersonal problems too." (S11)*

3.7.5 Engaging in Small Group vs Large Group

The format of group discussions significantly influences students' experiences and levels of resistance to social justice content. According to participants, small groups are experienced by some as being a more intimate setting where they feel comfortable sharing their thoughts and engaging in dialogue.

> *"I'm much more willing to discuss my opinion and questions in an environment that I feel more safe in because I know the people more and it's a smaller group. So yeah, I think maybe I painted a picture before where people don't say anything in the large group because there's this hostile environment, and I think there's an element of that. But I do also think it's just this human characteristic where we're more comfortable speaking with people we're comfortable with and in front of less people." (S11)*

Small groups were often seen as a good environment for rapport-building and trust to be established, allowing for deeper exploration of sensitive topics and reflection on personal biases. However, resistance might still occur if certain students dominate discussions or if preceptors fail to address harmful behaviours effectively.

Many participants recognized how large group sessions present unique challenges, such as limited anonymity and difficulties in managing conflicts or diverse opinions. In these settings, students may feel more hesitant to speak up or express dissenting views, fearing judgment from peers. Moreover, the size of the group can lead to disengagement or passive participation, especially if sessions lack structure or fail to capture students' interests.

3.7.6 Distinction between Classmates

Student resistance to social justice education is also influenced by the diverse backgrounds, experiences, and expectations within the cohort. Personality differences, varying levels of

exposure to social justice issues, and differing attitudes toward advocacy and activism may contribute to the nuance of resistance among students. Some participants described how the liberal and socially conscious nature of the class made them feel unfamiliar or uncomfortable. According to the participants, those with a background in advocacy or social justice may appreciate the curriculum more than others as it aligns with their personal values and beliefs, and view it as essential to their future roles as healthcare professionals. Furthermore, participants felt that there were differences in privilege and lived experiences which could shape students' perceptions, and attitudes toward social justice education. While some students may recognize and acknowledge their privilege, others may feel resistant to confronting their biases or engaging with such topics. Additionally, expectations regarding the depth and relevance of social justice content seemed to vary widely among students, with some advocating for an even more comprehensive approach while others would rather prioritize biomedical knowledge at this stage of their learning. Bridging these differences requires educators to acknowledge and address the diverse needs and perspectives within the class.

Table 3 Participant Quotations Based on Sub-Codes

Category	Subcategories and Quotes	
Modes of Resistance (How do Students Resist?)	Cognitive Responses	[Described weight stigma session] “Many of my peers seem to take this as a deeply personal attack on their values, and beliefs, and mostly, their internalized hatred of fat people, and were raising their hands, challenging her, telling her they didn't believe her, that they didn't think the science was right, that it was inherently wrong to support this lifestyle of our patients. Basically attacking a woman who is in a larger body, who is self-proclaimed as a fat woman, right? People messaging in our group chat studies that show the opposite thing, which meant that the lecturer couldn't engage at all. They were going above and beyond the lecture to be like, "No, this is wrong." (S01)
	Emotional Responses & Complaints	“Yeah, I think it is very detrimental, especially in learning environments because when people get defensive or they're scared of being policed, then a lot of times they get more reserved and they don't interact with the material as much. They feel uncomfortable. Not a good kind of discomfort, where it's a discomfort of learning new facts, but a discomfort where it seems like people are out to get them. Where they're being judged for what they believe. And with that sort of discomfort, again they become more grounded in how they think about things and how they approach things by getting these labels.” (S12)
	Behavioural Responses	“The day before our first exam, we had a four-hour obesity lecture, but it wasn't the medical side of obesity was the social aspect of obesity, which that whole session is also its own can of worms, but it's the day before our exam so more than 60 people were skipping. The class was empty. People just come in, sign their name and leave. So I think that's how people are dealing with, I guess, the overload of topics or I guess the overload of the time spent. Because I don't think that obesity lecture was very much evidence-based or very well communicated.” (S03)
Focus of Resistance (What are Students Resisting?)	Curriculum Structure	“I'm sure there were other external factors going into it, but I remember distinctly that I sat in class and there was a social-justice topic. I wasn't disengaged, but I remember sitting there being like, "I wish we were talking about this content right now." Because I felt like we weren't. The time for that just wasn't there. And so I think that could also be a reason that people aren't engaged, is because I feel like some weeks the medical content just hasn't even been touched upon or not touched upon very well. And so then there's this frustration with the curriculum of at the end of the day, we still need to get the medical content because we're still expected to know it, and that can't just be brushed aside. I think that's also been a reason why maybe people disengage.” (S18)

	Delivery of HE-SC Content	“I think the line is much different for the curriculum makers and I don't think that line that they make reflects what happens in real life. I understand it'd be nice if they could move real-life line closer to their line somewhat, hopefully be in the middle, like a nice balance. But what's happening out there is so radically different from the environment in here that because they're so different, you're like, is this really effective? Is this a good use of anybody's time? Is this an excuse for some people to have a job, frankly? How much is this adding? What's the value add here? I'm not seeing it. I'm not witnessing it. I'm not taking part of it.” (S22)
Triggers of Resistance (When are students resisting?)	Assessment	“It's a lot harder to test for the equity and diversity-type questions. Oftentimes, the practice questions we get for those are the easiest practice questions, where the more complicated ones are interpreting lab values and exam findings and whatever it might be. I think part of the issue is people want to know what will help them pass the test. Oftentimes, I think that's why they overlook those components and those topics specifically. I don't know if it's necessarily that people are starved for medical content, and so they take it out by wanting to ignore the more social justice-type content. I think a lot of people that I've met just want to succeed on the tests, and they know that the medicine is what's going to be, and they can worry about the other stuff a little bit less. That would be my best guess.” (S14)
	Scheduling & Timing of HE-SC Content	“I think, again, I feel like it just is the fact that there might be weeks where we just have a whole bunch of sessions that are focusing on that. And I feel like there might be engagement on the first day, but then since we're like, okay, it's happening over and over again, not that it has less value, but I think that might affect the way that people engage. So I think that might be a personal thing where I might be more engaged in the first session as opposed to if it happens every day. Because then it might make me think that, oh, I might be able to share that tomorrow if we're talking about it again. So something like that.” (S20)
	Content Sensitivity	“But I only know what we've been told about it, which is not much because kind of just been showing up every week and we're like, "Okay, what are we doing this week?" And I know it's been a big issue for a lot of people because people come from a wide variety of backgrounds and so you show up to class and you don't know what you're going to be triggered by, which has really brought up a lot of issues. And even interpersonal, I want to say, tension because people are getting emotional and worked up in class when they had no idea what was going to happen.” (S03)
Contexts of Resistance (In What Contexts	Social Media	“We are in this era of social media and cancel culture, and we see that all the time. And we see the implications of someone, I've seen situations where someone asked a stupid question or they did something that they didn't know was offensive, but was absolutely offensive. And the ramifications of that, go back to the, just Google influencer apology video. And that's what we really, we were raised in a generation of technology and social media, where

do students resist?)		every single dumb thing that you ask or say can be recorded and used against you for the rest of your life. I think for me, that's where it stems from, because that's what I've seen." (S04)
	Sociocultural Climate	"Well, I think we need to do more about improving the tolerance between students and watching out for the ways in which student on student sort of intolerance kind of creates difficulties. I mean, I'm not sure if you've heard about the recent thing with the Palestinian students statement and the show that came out that, and a lot of that wasn't from what happened in the lecture theaters. It's from the social media and hallway conversations and things that had been going on for a few weeks prior to that that sort of set that all up for ugliness. But that kind of thing is just not the actual... I mean, what actually happened in the lecture theater would be easy to sort of address and take a part, but the way it sort played out, what happened before and all that kind of stuff. So I think the school has to be a little bit more open to the idea that we might have a place in terms of acknowledging or helping students figure that out." (F23)
	Role of Educators	"In the communications course, one of the early teachings on how to take a history from a patient was to find out what name does the patient want you to call them and what pronouns do they want you to use or how do they want their gender referred to? And one [faculty] member had had a couple experiences, one where some students were coming to her saying, 'Yeah, my preceptor is saying this isn't that important. I don't have to do it.' Also, some of the standardized patients were saying, 'What is this about? Why are the students asking this? This is dumb. I don't want to do it, or I don't want to say what my pronouns are." (F15)
	Classroom Dynamics	"Yeah. I've had conversations with other peers in my class that where we're not the ones talking in class. And we'll say to each other, 'Oh, do you think the whole class felt that way or do we think it's just that one person's opinion?' It almost makes you think that the whole class feels like that because that's constantly what you're hearing. You're not hearing from other people who feel differently. And so I feel like it almost biases. I mean, it biases me to think that the class is all thinking one certain way, even though in reality that's probably not true. But I feel like because that's what I'm constantly hearing every day when I'm in class, I've just now formed an own opinion and bias in my mind that, oh, the majority of people probably think that, just because there's not really debate happening in lecture. It's not like we have two people battling back and forth so we're hearing both sides. It's usually one or two people reiterating the same opinions." (S18)
	Small group vs Large Group	"I think maybe what I didn't really expect was the way that it would actually play out in the room. And I think it's hard. One of the things with RIME that is a little bit unique is the really, really big emphasis on collaboration and group learning, whether that be in tutorial groups, or whether that be in large groups. And what that inadvertently does is gives a voice to people who are either early on in their learning process, who are trying to understand these

		concepts for maybe the first time, and also those who think that this is stupid, and this isn't medicine, and this isn't why we're here. And that can have benefits, and it can have pretty significant drawbacks." (S01)
	Distinction Between Classmates	"But someone had said how disgusted they felt that they were some of the only poor kids in the class. And I eventually found those people through going through a group chat through the class. But it was a huge fight. And for days afterwards [redacted] Our normal is different." (S10)
Underlying Reasons for Resistance (Why do Students Resist?)	Discomfort & Guilt	"I think just with anyone, it's your own personal perspective or the way you are brought up that you maybe are more readily interacting with certain things than others. For example, and this is an example anywhere, not even just with my peers, but people who are raised very, very religious are maybe more hesitant to interact with discussions on LGBTQ issues or advocacy. Again, this isn't necessarily from a place of bigotry or anything, but it is something that maybe they have never had exposure to throughout their life or don't have close friends or anything like that where their first interaction with it is through an academic space. I can see why that would limit someone's ability to interact. Ability is not the right word. I feel someone's readiness to interact. I can see, definitely the way that you're brought up directs how willing or comfortable you are with these things and that's just not an issue. That's an issue in everything, not just within my peer group." (S16)
	Fear of Being Targeted or Called Out	"I think when there's sessions that talk about implicit bias, for example, somebody came in to talk about fat bias in healthcare, and not a lot of people asked questions or commented because when there's sensitive topics or topics related to bias, I think people don't want to ask a question they might have because they very appropriately are afraid of being canceled by the class [redacted]. And people were not happy that he asked that question...But I think that's where people don't want to ask questions if they do have one because they're like, oh, I don't want to show that I do have this bias or that I'm not well-versed in this area of social justice. I don't want to expose myself. I think it's fear of being called out by the rest of the class." (S02)
	Anxiety Surrounding Medical Knowledge/Clinical Competence	"I think with those sessions, I think it's that anxiety that they're not going to learn enough, that makes people not able to give their full attention to those sessions. Because if we have one of those sessions every week, maybe every two weeks, people will say, 'Oh, this is two, four hours of my day that I need to feel that I'm going to be a good doctor.' Versus the social justice aspect, they'd rather take it and focus on the medicine, because I feel that a lot of people believe they're not learning enough medicine to be good doctors and without learning the medicine, which is their priority, they can't focus on learning the social justice aspect. I feel that that anxiety over not having enough of the medical knowledge is what's causing an impact on the social justice sessions, because I feel people do value the social justice sessions, but I feel that the anxiety and the

		anxious, the worry over not knowing enough is what is preventing people from actually sitting and participating." (S08)
	Bias & Prejudice	"This could reveal a potential personal bias of mine. But I guess that's okay. We had one lecture and it was on this whole obesity bias in healthcare issue. And I understand that there's a bias there, but they tried to make it in a way of disregarding the fact that obesity is even a thing and that it does contribute to a lot of these health conditions. And they were trying to... it seemed a little manipulative of the data they were trying to show to say that it's not even though there's amounts of literature to say otherwise. And I feel like the presenter wasn't exactly well versed in the biostatistics and the study design that went into these topics to really be able to speak at that level to the things. Because there were some things she presented that were complete, but I just think we're wrong. You could blatantly see it." (S22)

3.8 Mapping the Range of Student Responses to Social Justice Education

The variation and complexity of student resistance to social justice education became more evident when considering the range of reactions and responses to HE-SC topics and sessions. Figure 5 illustrates the spectrum of student reactions to social justice education within the RIME curriculum, using quotations from a participant to showcase how these reactions differ and vary from one another. Specifically, this diagram depicts students' attitudes towards social justice topics (sensitivity) whether that be positive or negative, and their awareness of these topics depending on their lived experiences, academic background, or overall familiarity with topics covered during HE-SC sessions. Through the analysis, two key variables were identified akin to axes along this spectrum: *sensitivity* - the degree of perceived relevance of social justice education (Y-axis) - and individual *awareness* or personal proximity to social justice topics (X-axis). These variables create theoretical quadrants that reflect different kinds of student resistance, which can shift over time depending on different factors.

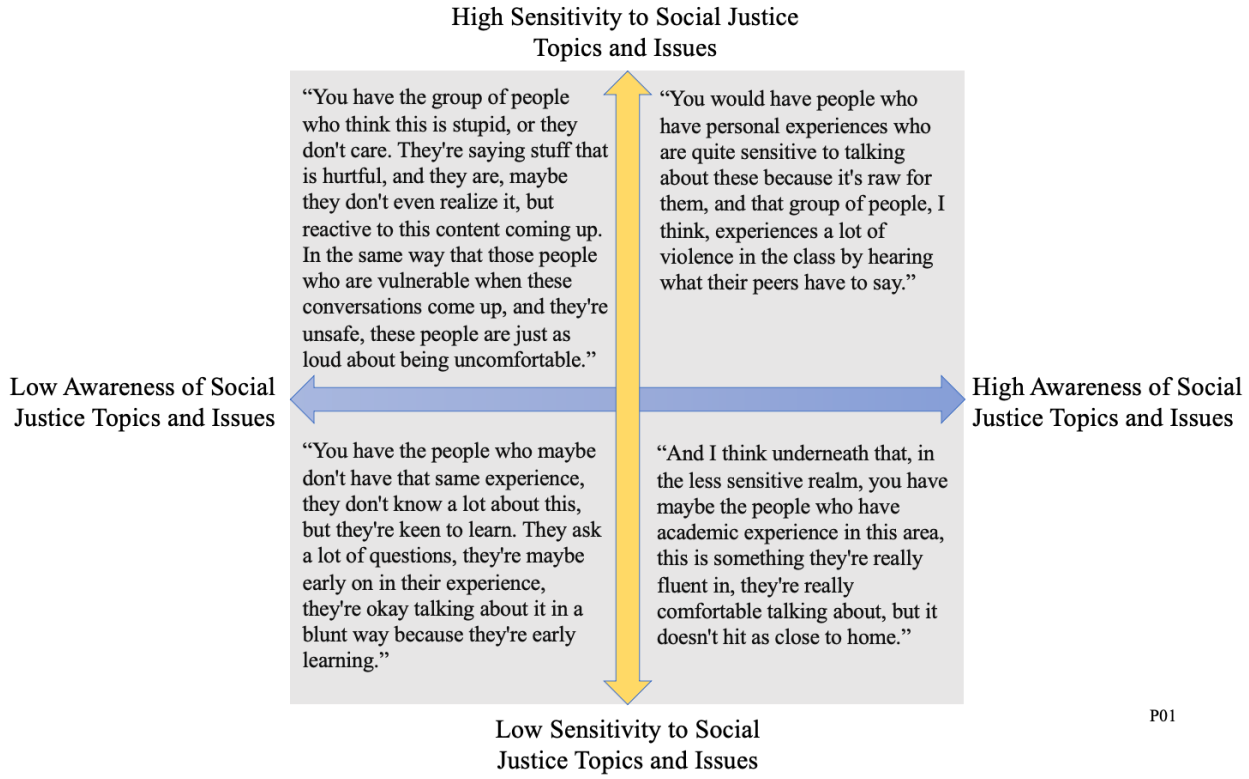


Figure 5 Variation of Student Reactions to Social Justice Education Based on Sensitivity and Awareness

Note*: The descriptions provided in this chart are summarized from the perspective of one participant (P01). However, the observations provided these quotations capture the range of student reactions, as demonstrated by accompanying examples.*

Factors like lived experience, academic background, and awareness of social justice topics were important considerations because participants would refer to deeply ingrained personal factors when discussing their resistance to social justice education.

> *"The way that you grew up and the way that you were kind of conditioned in childhood, in early adolescence, it just shapes your brain and it shapes your values, and might make it harder to break the mold, and break the biases that you know. Then not only do you have to consider yourself and your own biases, it's extremely hard when your family and your surrounding circle is all in that mindset." (S17)*

Participants recognized how lived experiences may create an appreciation for social justice education, but can also lead to resistance when the content fails to explore the depth and breadth of the issues. Resistance also emerged from a fear of being wrong due to limited exposure to social justice topics or issues before starting medical school. This variation in resistance highlights the complex interplay between personal backgrounds and attitudes toward social justice education.

Before delving into the intricacies of student reactions to social justice education, it is important to note that student resistance can vary across different sessions. Resistance among students can fluctuate depending on the topic of discussion or the session itself. However, by considering the axes of the diagram as spectra that intersect, we can better understand how and why resistance manifests in different ways.

High Sensitivity, Low Awareness: Students in the top left quadrant have a high sensitivity to the social justice topics discussed during HE-SC sessions but lack a deep awareness of these issues. Since these students are more sensitive to these topics and feel rather uncomfortable, they may react strongly during discussions even if their awareness of the social justice concepts in the broader context is limited. These students are vulnerable to experiencing heightened emotional responses and resistance, potentially leading to discomfort or withdrawal from class discussions. An example of this is when students who have not personally experienced weight bias or discrimination reacted strongly during the session by leaving the session without fully understanding the systemic nature of the issue.

High Sensitivity, High Awareness: In contrast, students in the top right quadrant have high sensitivity to the social justice topics and issues, and a high awareness of these issues due to their lived experiences, and academic backgrounds. Their heightened emotional sensitivity could lead to challenges in the classroom environment. These students may experience emotional distress due to remarks that their peers make, particularly if they perceive them as insensitive or hurtful. Additionally, they may struggle with classmates who do not have a similar level of awareness of social justice topics and issues or have viewpoints that they find offensive or dismissive of their experiences. Therefore, they may be more vulnerable and potentially harmed during interactions and will be more likely to resist by disengaging from the content to *"protect their peace"* (S10). For example, S10 referred to the environment during the weight bias and stigma session as *"harmful"* as someone with lived experience dealing with weight discrimination and felt the need to disengage and remain silent during the session because it felt *"just a bit too close to my human to be able to engage with it."*

Low Sensitivity, High Awareness: In the bottom right quadrant, students have a low sensitivity and a high awareness of social justice topics. These students are eager to learn and demonstrate a strong academic foundation of social justice topics and are also more aware of the nuances of various social justice issues. However, they exhibit limited emotional sensitivity, allowing them to approach discussions with a more detached and analytical perspective. While they may ask blunt questions or express curiosity, they are less affected by the emotional aspects of the discussions and have a better toolkit for navigating discussions on these topics. These students tend to be open to exploring and engaging with the material and may be less likely to resist social

justice education given their previous knowledge of the material. For example, students who have a public health background felt comfortable discussing the social determinants of health. Additionally, students approached discussions during the weight bias in medicine session with a focus on empirical evidence and research rather than personal anecdotes.

Low Sensitivity, Low Awareness: Finally, in the bottom left quadrant, these students have a low sensitivity and a low awareness of the social justice topics during HE-SC sessions. These individuals are described as students who may be early into their learning on topics regarding social justice, so they do not have the same level of awareness as students who lean more toward a high understanding of HE-SC for various reasons. Given that these students are often early learners or without significant emotional or academic connections to the topics, they may be less likely to experience emotional distress during class discussions or interactions. However, they are the students who could ask questions in a blunt way, which may cause reactions from other students in the classroom environment. For example, the student who asked a question during the Weight Bias in Medicine session that indicated the presence of implicit bias (according to the participants) garnered negative reactions from peers. Consequently, when these students are *"shut down"* by their peers or educators for asking a question, participants describe that these students are left in a*" situation where they don't want to engage with the content…and now know this isn't a safe thing to learn about and engage with"* (S01).

Exploring student resistance to social justice education in the context of a new undergraduate medical curriculum reveals a multitude of different reactions and experiences. While some students are ready to engage, regardless of their depth of knowledge on social justice topics,

other students may experience more challenges due to their sensitivity to the content, which can lead to resistance. By understanding the nuances of student resistance, educators can be better prepared to navigate resistance and create a better learning environment for all students where they feel safe and comfortable engaging in critical reflection and discussing social justice topics.

3.9 The Outcome Space: A Phenomenographic Lens on Student Resistance

Through leveraging a phenomenographical lens, I have visualized the results of this research through the outcome space for understanding medical student resistance toward social justice education (Table 4). As previously discussed in Chapter 2, an outcome space is used in phenomenography to organize a structured set of logically related categories that describe the variation in how a phenomenon is experienced or understood (Marton, 1986). The outcome space I present herein depicts the multifaceted and complex nature of medical students' resistance to social justice education. This outcome space offers a thorough framework for explaining the nuances of resistance and provides insight into the underlying factors influencing students' interest and engagement in social justice education.

Table 4 Outcome Space

Understanding and Perceptions of Resistance	Description	Key Factors	Example
Resistance in relation to self	Resistance originates from personal beliefs or expectations	Discomfort with personal biases or assumptions challenged by HE-SC content	Substance use session hit "too close to home" due to lived experience or student proximity to substance use amongst their family or friends; students disengaged because the session was emotionally overwhelming Students will feel uncomfortable discussing sensitive topics like substance use when they struggle to relate to the content
Resistance in relation to self and professional identity as MD	Resistance arising from the intersection of personal identity and professional identity as a future physician	Relying on personal beliefs or values when evaluating the relevance of HE-SC content	Students believe that the HE-SC content is better suited for social workers
		Perceived irrelevance to future career or clinical practice	Too much time is being spent discussing substance use for something that is not too relevant because what a physician needs to know is clinical medicine
Resistance based on perceived utility and applications to clinical practice/future profession	Resistance stems from whether students see the issues as legitimate or applicable to the actual work or things they need to know and do as a medical student/resident/MD	Two sub-categories 1) HE-SC is important, SDOH are real, but the teaching content isn't deep enough or feels superficial and not useful for patient care 2) HE-SC is not important, SDOH are not real, and not the job of an MD, it is irrelevant for what students will need to do as an MD	Commitment to advocating for structural change and health equity within healthcare systems, but students don't feel they are being taught to do this Social justice is not applicable because physicians don't do this, and it is not helpful or useful at all Resistance to community organization because students felt it was not helpful to be a good clinician
Resistance due to social dynamics and social implications	Resistance arising from social dynamics within the educational environment, including interactions with peers and faculty	Recognition of the influence of social norms or peer pressure on resistance	Students will not raise their hand in class, or ask questions because they worry about how their peers or faculty may react to their question or comment
		Fear of judgment or conflict for expressing different opinions due to cancel culture	

First, resistance often stems from deeply held personal beliefs or expectations. For instance, when confronted with HE-SC content that challenges their biases or assumptions, participants described how students may exhibit discomfort. During the session addressing substance use, for students with lived experiences, the discussion was emotionally overwhelming, which according to participants, led to disengagement as a coping mechanism. This showcases how resistance can be deeply intertwined with one's sense of self and lived experiences.

Resistance may also arise at the intersection of personal and professional identities, especially among those training to be future physicians. Students may resist social justice education by juxtaposing it with their envisioned roles in medicine. Some participants mentioned how they or their classmates perceive such social justice content as more relevant to social workers or other health professionals, failing to see its connection to their future practice. Therefore, there is a tension between their personal beliefs and the professional identity they believe is needed as a future physician.

Resistance can also be rooted in students' perceptions of the utility and applicability of social justice issues and concepts to their future careers as physicians. Some participants acknowledged the importance of concepts like health equity and social determinants of health but found the teaching content lacking depth or relevance to patient care. Conversely, some students dismissed social justice as irrelevant to their roles as physicians, questioning the necessity of the HE-SC curriculum and sessions. Contrasting perspectives emphasize the complexity of student resistance and the diverse ways in which it can manifest.

Finally, social dynamics within the learning environment play an important role in shaping resistance. Peer interactions and social norms can heavily influence students' willingness to engage with social justice education. For instance, fear of judgment may deter students from voicing dissenting opinions or participating actively in discussions, as described by participants. This fear reflects the immense impact of social pressures, including concerns about being subjected to cancel culture or facing backlash from peers.

The outcome space of student resistance to social justice education offers insights into the multifaceted nature of this phenomenon. Student resistance can manifest in various ways due to the personal beliefs and professional identities held by students, as well as perceptions of the utility and at times relevance of social justice content and the presence of social dynamics. Therefore, a variety of factors intersect to shape students' resistance experiences.

Chapter Four: Discussion

4.1 Summary of Findings: How and Why Students Resist Social Justice Education

In addressing the question of how and why medical students might resist social justice medical education, this study has explored student reactions, and the contextual factors that underpin student resistance. Student reactions and responses to social justice education were described based on their levels of understanding of the topics and concepts covered during HE-SC sessions, and their sensitivity to the topics. Additionally, contextual factors played a vital role in shaping student resistance to social justice medical education. Some of these factors include curriculum design, educator-student dynamics, and broader societal influences. Students' perceptions of the relevance, legitimacy, and applicability of social justice concepts to their future roles as physicians are deeply intertwined with these contextual factors.

Utilizing a phenomenographical lens as part of this case study, unpacked the variability of student resistance in this context. While some students actively engaged with the content, others expressed varying degrees of resistance. This resistance included cognitive, emotional, and behavioural expressions of resistance, reflected in the skepticism towards the relevance and efficacy of certain instructional methods, discomfort with social justice topics, and disengagement during sessions. Cognitive responses to social justice content included skepticism regarding the relevance and accuracy of social justice content, including perceived biases present in the HE-SC sessions or the absence of diverse perspectives among presenters and speakers. Emotional resistance manifested as discomfort, discontent, or skepticism towards social justice education, which led students to complain about its relevance or effectiveness. Finally,

behavioural responses to the social justice content were reflected in the attendance patterns among students, disengagement during sessions, and reluctance to participate in discussions related to social justice content. Together, these findings highlight the complexity of medical students' responses to social justice education, emphasizing the necessity of nuanced approaches to curriculum design and engagement strategies.

To understand why medical students exhibit these forms of resistance, it is worth considering various influencing factors that span individual, interpersonal, professional, and societal dimensions. At the individual level, resistance stemmed from students' personal biases regarding certain social justice topics, and from differences between personal beliefs or values and the content being taught, which led students to feel a sense of discomfort in engaging with the material. Interpersonal dynamics, including peer influence and fear of judgment by others, contributed to resistance behaviours, shaping students' willingness to engage with social justice content. It is important to note that these findings align with literature highlighting the role of guilt and fear in influencing students' willingness to acknowledge uncomfortable realities about privilege and systemic injustices (Johnson and Vinding, 2023). Specifically, Johnson and Vinding (2023) claim that when guilt is used negatively, it can cause individuals to avoid situations or look for instant comfort, which undermines opportunities for critical engagement. Additionally, when students feel 'attacked', it can further hinder their ability to engage, especially when unpacking uncomfortable truths about privilege and systemic injustice (Johnson and Vinding, 2023). Professional factors, such as anxiety surrounding preparedness for clinical rotations also played a role in student resistance. Societal influences, including broader socio-cultural narratives and prevailing discourses on social media, further shaped students' attitudes

and perceptions towards social justice education. Understanding the underlying motivations and mechanisms driving student resistance is crucial for designing effective interventions and fostering a more inclusive and equitable learning environment within medical education.

Furthermore, contextual factors can play an important role in shaping how students resisted this content. Within the boundaries of this case study, some of these contextual factors included engaging in small groups versus large groups and the influence of educators on students within the learning environment. It is important to acknowledge how the local context of this case study introduced nuances that may have driven or exacerbated resistance. The Class of 2026 of undergraduate medical students was the first cohort of students to undergo this new curriculum. Being the first group to navigate a substantially different pre-clerkship curriculum introduced perceived unknowns and uncertainties among the students, which may have heightened their feelings of anxiety. Given that this was the first year of the new curriculum, students and faculty also had to navigate several logistical difficulties during the implementation of the curriculum. Participants had highlighted how the lack of communication about the curriculum - in general as well as the HE-SC component - led to misinformation to be spread about the curriculum. Additionally, the evolving nature of this curriculum meant that the HE-SC content was being built as the new curriculum was being implemented, which also might have introduced additional challenges for students. For example, participants mentioned they were not informed about HE-SC sessions well in advance, and there were technical issues with closed captioning on the podcast episodes that contained the content they needed to learn. There was also a new group of preceptors involved in the new curriculum, many of whom had no formal training in education or awareness of HE-SC. Furthermore, assessment methods underpinned resistance. At the time of

this study taking place, students had only been formally assessed using Cards, and this appeared to influence students' priorities and engagement. For example, students prioritized doing Cards instead of attending and engaging in HE-SC sessions.

Beyond the local context, the broader sociopolitical context - particularly the influence of social media - played a role in shaping student resistance to social justice education. Societal attitudes and debates surrounding social justice issues at the national and global level during the time of this study heightened tensions among students. These tensions were recognized by students as creating divisions that adversely impacted their interpersonal relationships and overall sense of camaraderie within the class. Social media applications served as platforms for discourse on social justice issues, more easily revealing student beliefs, values, and narratives on these topics. Additionally, the rapid spread of information and opinions through these platforms may also have contributed to heightened emotions and increased polarization among students.

Sensitivity to these contextual nuances is important for designing effective teaching and learning interventions and fostering a more inclusive and equitable learning environment. Insights from this research visualized across intersecting axes that represent sensitivity and awareness point to specific challenges and barriers faced by students in engaging with social justice education. Appreciating the varied levels of comfort and comprehension regarding HE-SC content may be beneficial for educators to adapt educational efforts to address the diverse needs of learners.

In summary, the findings of this case study point to the complex interplay of cognitive, emotional, and behavioral factors underlying medical students' resistance to social justice education. By and considering the diverse contextual influences at play, educators and institutions can develop more effective strategies for promoting engagement and fostering a culture of social justice within medical education.

4.2 Power Dynamics and Privilege

As Foucault once claimed: “where there is power, there is resistance” (Foucault, 1978). In medical institutions, power dynamics are increasingly recognized as playing a critical role in shaping student experiences and behaviours (Rees et al., 2013; Shaw et al., 2018; Vanstone & Grierson, 2022). This study underscores the importance of understanding power dynamics as key factors that influence students’ resistance to social justice education. Power, according to Foucault, is not a contrast between those who have power and those who do not, but rather power is enacted in interactions where both parties can act, but the superordinate may constrain the actions of the subordinate (Foucault, 1982). It became increasingly evident throughout this study that students felt constrained by power as they often felt inhibited in expressing their thoughts and asking questions, perceiving themselves as being in subordinate positions compared to the faculty preceptors who held more authority in the learning environment. Perceived power imbalances led students to fear potential repercussions, resulting in difficulties in voicing their concerns and dissenting opinions about the social justice content. These experiences align with previous literature indicating that such power dynamics operate as a barrier to medical student engagement (Rees & Monrouxe, 2010).

In the context of medical education, medical students often have to navigate the complex power dynamics in their interactions with educators and medical professionals. This study revealed a spectrum of resistance, from subtle acts of disengagement to more overt skepticism and non-participation. Students would selectively attend or disengage from HE-SC oriented sessions. For instance, some students would sign in for mandatory HE-SC sessions and leave immediately afterward. Recognizing how power dynamics constrain student agency, many students utilized more subtle acts of resistance by accommodating the resources and opportunities available to them in order to avoid anticipated confrontations and consequences (Shaw et al., 2018). These actions, though seemingly minor, signified student strategies for navigating power imbalances innate to medical education while also expressing their dissent towards certain aspects of social justice education.

Behavioural strategies used by medical students to resist social justice education could be further understood through the notion of "Everyday Resistance" introduced by Scott in 1985. Scott's concept of everyday resistance was used to describe instances of resistance that were different from the commonly known riots and rebellions, and were more quiet, dispersed, and hidden, which Scott called "Infrapolitics" (Scott, 1985). Scott argued that some of behaviours such as foot-dragging, escape, passivity, and avoidance could also be classified as resistance as these were used to assert agency and undermine power when rebellion was challenging (Scott, 1985). Building on Scott's insights, Kerkvliet highlighted the nuances in determining whether an act of everyday resistance can be interpreted as such. Kerkvliet suggests that some actions might appear as acts of everyday resistance, but are actually how individuals attempt to navigate established political systems (Kerkvliet, 2009). Specifically, these actions "convey indifference

to rules and processes regarding production, distribution, and use of resources. They are typically things people do while trying to 'cut corners' so as to get by" (Tria Kerkvliet, 2009, pg. 237). Furthermore, Kerkvliet differentiated such acts from resistance by suggesting that these individuals do not target those in superior positions, or voice opposition to their interests (Tria Kerkvliet, 2009). However, they could target and harm individuals who are in similar positions (Tria Kerkvliet, 2009). Vinthagen and Johansson (2013) argued that these actions which Kerkvliet claims to be "cutting corners" (Tria Kerkvliet, 2009, pg. 237) would still be considered acts of resistance if these acts were at odds with the interest of those in superior positions, regardless of whether it was intended or not.

Further parallels could be drawn between the behaviours exhibited by students uncovered through this research with the subtle acts of resistance described by Scott and Kerkvliet (James, 1989; Kerkvliet, 2009) . Analogous to how subordinate groups might navigate power dynamics through tactics such as of foot-dragging and avoidance to assert agency, medical students may utilize similar strategies to express dissent towards social justice education. For example, the selective attendance and disengagement during sessions, as observed and often described by participants in this study, can be interpreted as manifestations of everyday resistance within the learning environment.

Furthermore, Kerkvliet's distinction between acts of resistance and actions that are aimed to navigate political systems provides further insight into the motivations behind student behaviours. While some may view these actions as attempts to cut corners, they can also be seen as more subtle forms of resistance against the structures of power in the learning environment.

By looking at these behaviours within the context of student resistance to social justice education, we can consider the importance of agency and intentionality in understanding student resistance. Therefore, whether these actions are perceived as resistance depends on their alignment with the interests and power dynamics of those in superior positions. This emphasizes the complexity of resistance as an interplay between power and agency.

Finally, it is important to recognize that the behavioural tactics employed by medical students to resist social justice education can be underpinned by a variety of rationales, reflecting the complexity of their motivations. Some students may engage in acts of resistance because they devalue the importance of social justice and are disinclined to engage with the content. Others may resist as a form of self-protection, particularly if they have personal proximity or lived experiences related to the subject matter that make engagement painful or challenging. Additionally, resistance could arise from perceptions that the sessions are superficial or tokenistic, leading students to question the authenticity and effectiveness of the education being provided. Recognizing and understanding the diversity of underlying reasons for resistance is important for comprehensively addressing the nuances of resistance within medical education.

4.2.1 Privilege

It is worth considering the nature and role of privilege in medicine, particularly how it shapes the composition of medical professions and student cohorts, influences dynamics within the learning environment, and potentially drives resistance to social justice education. Although medical schools receive thousands of applications every year from diverse and highly competitive

candidates, the issue of privilege and socioeconomic diversity among those admitted persists. Research from nearly two decades ago highlighted that medical students in Canada hailed from families with higher average incomes, higher parental education levels, and predominantly urban regions compared to the general population (Dhalla et al., 2002). More recent studies confirm this trend, as medical students continue to come from privileged demographic groups and affluent backgrounds (Khan et al., 2020; Pitre et al., 2020). It is important to highlight the barriers that students from lower socioeconomic backgrounds often face in higher education, including factors like needing to take time off from school, or attending school part-time due to family or financial constraints (Goldrick-Rab, 2006; Roksa & Velez, 2012). In addition to these barriers, students from certain backgrounds have been traditionally underrepresented in medicine in Canada, including Indigenous, Black, and Filipino ethnicities (Ayub et al., 2017; Dhalla et al., 2002; Leduc et al., 2021; Young et al., 2012). Given these barriers, and how admissions is recognized as a barrier to diversity in the matriculant pool, the presence of affluence and privilege becomes more apparent among medical students.

The composition of medical school cohorts and subsequent educators often lacks diversity in identities and lived experiences, which holds significant implications for reforming curricula. Socioeconomic privilege influences medical students' perceptions and level of engagement with social justice education. Johnson and Vinding (2023) suggested that students who come from privileged backgrounds often lack sufficient experience to fully understand the concept of privilege, and tend to solely equate the notion of privilege with wealth and power rather than the absence of identity-based systemic and structural barriers. This misperception then leads students with more privilege to resist acknowledging their privilege, especially among students from

middle to lower-middle-class backgrounds who have encountered barriers themselves (Johnson and Vinding, 2023). Furthermore, varied language used by students to discuss concepts of power, privilege, and oppression may stem from a lack of formal education on these topics and shared terminology. This points to a knowledge gap that, if addressed, could foster greater understanding and empathy to mitigate potential resistance within educational settings.

In addressing the systemic and structural challenges inherent in medicine, educators may be tasked with educating privileged students about the realities of systemic oppression. To provide students with more opportunities to learn about differences of privilege in real-life contexts, Johnson and Vinding (2023) suggested project-based learning experiences where students help community partner organizations and support them in creating solutions to challenges faced by diverse clients. In medical school, this could look like community-based volunteer or extracurricular placements that allow students to engage with a wide variety of people. In this way, students can learn about differential treatment and experiences of discrimination. The new RIME curriculum has indeed incorporated community-engaged learning opportunities for students, ensuring dedicated time for students to engage with community organizations through the Professional Roles curriculum. Encouraging students to be intentional with selecting opportunities to engage with different communities that align with their personal goals and interests may enhance the impact of these experience. Additionally, these opportunities could be designed so students can directly engage with diverse communities. By employing educational initiatives that are sensitive to the lack of experiences and potential biases of students, programs can facilitate more meaningful learning experiences.

In summary, the lack of diversity and pervasive prevalence of privilege in medicine can be considered underlying factors contributing to resistance against social justice teaching. This resistance may stem from a variety of sources, including students' unfamiliarity with lived experiences of oppression or a rejection of the philosophical value of social justice in medical training. Acknowledging these complexities is essential for developing targeted strategies to address resistance and promote a more inclusive and socially conscious medical education environment.

4.3 Sociotemporal Considerations of Resistance

It is important to unpack the broader contextual factors driving student resistance, including social media use and ongoing discourse on social media platforms, as well as current events on student resistance to social justice education. Medical students and educators often leverage technology and applications such as X, Facebook, Google, WhatsApp, and YouTube to varying degrees and purposes (Nicolai et al., 2017). Through these applications, students can join special virtual groups or chatrooms with other members that share common interests or goals. They can also share and listen to content and resources with others. Since the COVID-19 pandemic, more students are using social media applications and web tools to learn (Nisar et al., 2022).

The use of social media in medical education is supported by learning theories such as communities of practice and connectivism (D'Souza et al., 2021; Flynn et al., 2015). Communities of practice involve individuals with a shared interest in collaborating and learning together (Flynn et al., 2015). In communities of practice, learners play a pivotal role in teaching,

in contrast with more traditional educational settings where knowledge transfer is more unidirectional. Participants in this study described how they would use social media group chats to find similar-minded individuals whom they would connect with and form a small community to share notes and information with. Connectivism is based on learning through networks, which can be facilitated by technology and being on social media (Flynn et al., 2015). This can look like sharing or receiving resources and knowledge within a large network, which can highlight diverse perspectives and also enable critical thinking (D'Souza et al., 2021). Participants in this study also revealed that they would use social media platforms and group chats to continue conversations following HE-SC sessions and would share resources and articles with one another using the group chats as well that would at times emphasize alternative perspectives on the social justice topics. Therefore, utilizing social media can allow students who use it to be exposed to different perspectives and engage in critical thinking on the social justice topics covered during sessions. Learning theories such as communities of practice and connectivism provide insight into how social media and peer interactions can influence resistance.

This study highlights the profound yet arguably overlooked invisible role of social media in shaping medical student resistance. While social media platforms indeed offer avenues to increase awareness of social injustices, they also appear to have created a lingering fear surrounding potential conflict and "cancel culture". Constant exposure to such content on social media appears to also make some students reluctant to engage as they might become more dismissive and passive to social justice education as they feel they are already well aware of social issues and subject matter. Along with heightened awareness, there was a general sentiment of concern about the potential repercussions of engaging in sensitive discourse online among the

participants. These feelings became more prominent following the suspension of a medical resident at the University of Ottawa in November 2023 after they made a series of posts on their personal social media about the Israel-Palestine conflict – arguably a reflection of how professionalism can become weaponized against learners and a stark manifestation of cancel culture (White-Crummey, 2023). Participants mentioned how instances like this - where medical professionals are implicated for their actions on social media - make them more aware of their own social media presence and of the professional implications of engaging in discourse surrounding social justice issues, such as professional reputation and CaRMS match. The impact of this situation may have further exacerbated student resistance during this study.

The escalating tensions surrounding the ongoing Israel-Palestine conflict, is an important sociopolitical context for this study. During the time of the interviews, growing tensions among students manifested in interpersonal interactions initially on social media. These tensions exacerbated any existing divisions among students, prompting concerns about the potential consequences of this divide given the lack of correspondence or guidance from the administration in addressing the rising tensions among students. This situation underscores the influence of social media on student interactions and dynamics, thereby hindering constructive engagement with social justice content in the formal learning environments. Ultimately, medical schools should recognize the broader sociopolitical context in which resistance can emerge, and take proactive measures to address underlying tensions that, if neglected, can further manifest as resistance.

4.4 Implications for Medical Education

In this section, I will explore the implications of the findings from this study on health professions education, specifically regarding curriculum development, pedagogical approaches to teaching about social justice in medicine, the importance of faculty development, and assessment. By understanding how all of these elements can be used to create safer and more inclusive learning environments, medical programs can be better prepared to facilitate social justice teaching and learning. It is important to note that these implications are drawn from the findings of this case study which were constrained by the specific context and boundaries of the case. Therefore, generalizations to other contexts should be approached with caution and careful consideration.

4.4.1 Social Justice in Undergraduate Medical Curricula

The successful integration of social justice topics into medical curricula is important in managing student resistance to these topics, while also preparing students to recognize and address systemic and structural determinants of health inequities. As some individuals may be resistant to social justice education, some may also be resistant to change in general. In the higher education, resistance to change can manifest for several reasons including strong existing traditions, individuals not understanding the need for change, and misinformation early on in training (Lane, 2007; Malik & Malik, 2021). In this specific case, introducing an entirely new curriculum alongside a heightened integration and emphasis on social justice warrants careful considerations of potential resistance. Participants mentioned the lack of clear communication on the integration of social justice education within the curriculum, which led to a lot of misinformation being spread about the curriculum in the early stages of their training. Building and sustaining trust and confidence among students necessitates thorough preparation and ensuring consistency of the quality of social justice-oriented sessions. Furthermore, careful management of the timing and

frequency of these sessions is crucial to prevent student overwhelm and foster sustained engagement. Ultimately, this points to the importance of finding a delicate equilibrium, balancing social justice and biomedical content, as both students and faculty may be acutely aware of the relative proportionality of each within the curriculum.

When teaching social justice content, the choice of pedagogical approaches can influence student resistance. Evidence-based strategies emphasize creating positive interactions between learners and members of marginalized groups, increasing knowledge on social justice topics, and addressing and dispelling myths have proven to reduce prejudice and discomfort among students (Johnson and Vinding, 2023). In learning environments that are teaching social justice content, contact interventions, such as the inclusion of speaker panels that allow students to listen and learn from individuals with lived experiences, have been effective in lowering prejudice and improving attitudes of learners (McMillian-Bohler et al., 2022). While some participants skipped the HE-SC sessions, community panels were often the exclusion as they felt they always added valuable insight in the way lived experiences impact health outcomes and patient care. Strategies aimed at presenting knowledge and dispelling certain myths on social justice topics by correcting misinformation have also been useful in engaging students (Case & Stewart, 2013).

Educational settings may be further leveraged to foster dialogue and discussion, particularly the benefits and limitations of group-based sessions. Generally, small group sessions were preferred by most participants due to a greater perceive sense of safety, as speaking up in large groups sessions came with a fear of being judged by their peers. Given that there are fewer people in small groups, these environments can feel less intimidating allowing for more meaningful

discussions. While this was the case for most participants, some small group environments felt more hostile due to tension and negative peer relationships based on differences in personalities, opinions, and values. Fostering a safe and inclusive learning environment is important for any learning environment, especially when it involves difficult discussions which some students might be sensitive to for various reasons (Kumagai et al., 2017).

Learning theories can be further leveraged to optimize teaching of social justice in medical education. Mezirow defines transformative learning as "an orientation which holds that the way learners interpret and reinterpret their sense experience is central to meaning making and hence learning" (Kitchenham, 2008). Transformative learning practices are important in medical education as they establish social change agents and equip medical students with the tools to address health inequities (Frenk et al., 2010). Central to transformative learning is the creation of space for reflection and dialogue so that learners are able to understand the social and human dimensions of medicine (Kumagai & Naidu, 2015). It may be beneficial to involve medical students in conversations that encourage ongoing introspection on their academic and personal experiences. Through these reflections, students may be able to recognize the biases and presumptions they have about the subjects covered in class. Students might benefit from being encouraged to reflect on their experiences by creating safe learning environments, discussing privilege and power disparities, and fostering reflective spaces (Kumagai & Naidu, 2015). To guide discussions that allow learners to feel safe and included, it is important that all educators receive adequate training to establish skills and tools necessary in facilitating safe and inclusive discussions amongst medical learners.

A finding specific to this case study was that faculty members and educators who interact with students and inform important decisions on social justice education can also play an important role in shaping student resistance. With the introduction of a new undergraduate medical curriculum, a new group of preceptors and faculty were also introduced, many of whom were confused about the curriculum. Compared to the previous curriculum where faculty played a more active role in small groups in teaching material, the RIME curriculum requires faculty to play a more facilitative role during small group sessions. Since this curriculum was being newly implemented, faculty development sessions were delivered between January-June 2022 in two areas: Fundamentals of Health Equity and Structural Competency, and Inclusive Teaching Practices. However, participants mentioned how these sessions were not required or attended by all faculty in the new curriculum, which may have allowed resistance to manifest and worsen, and expressed that mandatory faculty development was needed in order to promote inclusive learning environments. Faculty development requires additional funding from the medical program and institution, which can be a barrier. However, the long-term benefits of faculty development could contribute to improved academic performance of students, in addition to faculty knowledge and professional competence (Bilal et al., 2019).

As discussed previously, faculty must also navigate power dynamics carefully, stepping in to manage conflicts without imposing their own biases or perspectives on students. Failing to do so can leave students feeling even more frustrated and disregarded, which could lead to resistance. Importantly, faculty development needs to not just focus on teaching content, but skills for diffusing conflict and navigating tensions so that faculty understand how to balance dialogue and when to allow opposing viewpoints. As participants pointed out, faculty reactions to the social

justice content influence student reactions to the content. This highlights the role that faculty can play in shaping student perspectives and level of engagement with social justice content.

Assessment and other strategies in evaluating academic progress are also important in evaluating learning outcomes regarding social justice education. The primary assessment strategy discussed by participants at the time of this study which spanned the first block of the new curriculum was Cards, a quiz bank of multiple-choice questions created by the pool of educators based on the content that they are learning each week. A primary complaint from participants was that Cards inadequately assessed their learning on social justice education. Given that Cards are typically multiple-choice style questions, Cards on social justice topics would mainly cover statistics or factual information and neglected a deeper exploration of complex issues like HE-SC content. An example of a type of question that might come up would be a scenario that describes an individual experiencing racism, and the question would ask the type of racism that is being presented, addressing what many could consider a superficial understanding of racism rather than the depth needed for structural competency. The disconnect between assessment methods and aim of social justice education emphasizes the need for more diverse assessment strategies that can evaluate students on their learning and growth pertaining to social justice topics.

As previously discussed, reflection could be an option in assessing students on topics related to social justice education. While reflection has become an important discourse in assessment within medical education (Hodges, 2006), curriculum designers should be cautious in relying on reflection alone as a way to assess students on skills that are not easily quantifiable using traditional assessment approaches (Ng et al., 2015). The use of reflection purely as a method of

documenting learning and self-assessment strays away from the original philosophical underpinnings of reflection as a practice, according to Ng et al (2015). Instead, the use of reflection should aim to allow students to critically examine systemic issues that influence health disparities and health outcomes, while also trying to stay consistent with the theoretical foundations of reflection.

Objective Structured Clinical Examinations, also known as OSCEs, is a form of simulation, practice-based assessment that allows students to be assessed in an environment that mimics real life clinical encounters (Khan et al., 2013). Students also undergo Objective Structured Clinical Examinations (OSCEs) during pre-clerkship, but had not yet done so at the time of this study. Compared to reflection, OSCEs require more resources, and require more time to organize. Additionally, studies have shown that OSCEs lend their utility in assessing students' communication skills, and cultural competence (Altshuler & Kachur, 2001; Piumatti et al., 2021). OSCEs could be utilized to see whether students are proficient in integrating social justice considerations into clinical interactions.

The findings from this study have implications for medical education, specifically in regards to curriculum development, pedagogical approaches, faculty development, and assessment. By meaningfully integrating social justice content into curricula, using inclusive pedagogical strategies, offering faculty development opportunities, and implementing diverse assessment strategies, medical schools can be better prepared for potential resistance from students. In the next section, I will explore some recommendations for addressing student resistance.

4.4.2 Recommendations & Considerations to Address Student Resistance

Addressing student resistance to social justice education requires the development of effective strategies aimed at fostering safer learning environments and potentially overcoming this resistance. While the parameters of this case study situated the findings within the contexts of a new pre-clerkship curriculum at the University of Calgary and did not focus on gathering recommendations to potentially mitigate student resistance elsewhere, strategies were identified that could mitigate student resistance. Summarized comments have been compiled into a table (Appendix F) that will be presented to the UME at the University of Calgary with the aim of implementing the recommendations provided by the participants.

One of the most important things to consider when teaching and learning on topics pertaining to social justice is the power dynamic present between a learner and educator. Conceptualizing resistance as a phenomenon typically targeted towards a person, program, or institution of power (Mumby et al., 2017), it would be important to consider strategies for potentially reducing the presence of power dynamics in the learning environment, while also maintaining the social justice content. A study conducted at the University of Hawai'i demonstrated the effectiveness of a student-driven social justice program that supplemented the biomedical content (Ambrose et al., 2014). This program allowed students to gain hands-on experience in collaborative program development while also familiarizing themselves with different components of social justice in medicine (Ambrose et al., 2014). By allowing students to be involved in the process of program development, and in running the program as well, the program was specifically organized to

meet the interests and needs of medical students (Ambrose et al., 2014). This aligns with the Friere's notion of "co-intentionality" (Freire & Ramos, 2009) as knowledge and ownership of the learning is shared between students and educators, which helps with reducing the power dynamics usually inherent between an instructor and student (Ambrose et al., 2014; Heidemann et al., 2010). Problem-posing is the process of asking thought-provoking questions, and allowing students to ask their own questions as well, allowing students to feel more ownership over their learning and education (DasGupta et al., 2006; Freire, 1974). This allows educators and students to develop mutual intentions and for knowledge to be mutually owned (DasGupta et a., 2006). Therefore, allowing students to be more involved in the process of developing and refining social justice content may be useful in mitigating resistance. This might involve asking students what social justice topics they are interested in learning about to incorporate these into program outlines and getting regular feedback from the students on the social justice-related sessions.

The perceived importance and relevance of social justice to medical students' envisioned clinical careers can also play a role in their engagement. Expectancy Value Theory suggests that individuals will be more engaged and put more effort into their work and activities that they both perceive to have value and expect to succeed (Wigfield & Eccles, 2000). The theory depends on individuals' perceived value and likelihood of success in specific endeavours, comprising three key elements: expectancy, value, and cost (Cooper et al., 2017; Wigfield & Eccles, 2000). Expectancy pertains to one's overall confidence in their ability to excel in a given area, often gauged by their self-efficacy within that domain (Wigfield & Eccles, 2000). Value encompasses various factors such as the significance attached to task performance (attainment value), the inherent pleasure derived from the task (intrinsic value), and its relevance to personal or future

objectives (utility value) (Wigfield & Eccles, 2000). Conversely, cost refers to the adverse outcomes associated with task engagement, encompassing both direct repercussions and opportunity losses resulting from time allocation to the task (Wigfield & Eccles, 2000). A study looking at resistance to active learning among first-year biology students found that the Expectancy Value Theory can be used to better understand student resistance to active learning, and be used to help improve student engagement in active learning (Cooper et al., 2017).

Extending this theory to consider medical student resistance to social justice could be similarly beneficial. For instance, if Expectancy Value Theory suggests that individuals are more likely to engage and invest effort in tasks they perceive as valuable and expect to succeed in, then students' perceptions of the importance and relevance of social justice to their future careers as physicians are crucial. Expectancy, which is the first component of the theory, relates to students' confidence in their ability to excel and do well in social justice education. If students believe they have the skills and knowledge to succeed in these topics, they are more likely to actively participate and engage with the material. Value encompasses various factors influencing students' motivation. For instance, attainment value reflects the personal importance students have towards excelling in social justice education, considering how it aligns with their identity as future healthcare professionals. Intrinsic value refers to the enjoyment students derive from learning about social justice topics, which can enhance their motivation to participate. Additionally, utility value reflects the perceived relevance of social justice education to students' goals to become physicians. The third component, cost, represents the negative consequences associated with engaging in social justice education. This could include things like the time and effort required to understand complex social justice concepts, as well as opportunity costs, such as sacrificing time that could be spent on other academic pursuits, or studying for exams.

By considering these components of Expectancy Value Theory, educators can tailor their approach to social justice education to enhance student engagement and mitigate resistance. For example, highlighting the practical applications of social justice principles in healthcare settings can increase the utility value for students, making the content more relevant to their future careers. Additionally, creating a more supportive learning environment where students feel confident in their ability to add to discussions and activities related to social justice could boost their expectancy and intrinsic value, and could improve their motivation to participate.

4.5 Further Research

There are several areas that could benefit from future research to deepen our understanding of student resistance to social justice education. Empirical investigations are needed to further understand this phenomenon, specifically to explore and define the manifestations of student resistance, considering factors such as power dynamics, institutional culture, pedagogical strategies, and the influence of peer networks. Rigorous empirical studies in this area can allow researchers and educators to learn more about the complex dynamics at play to better inform strategies in addressing student resistance in this context.

While this study focused on student resistance over a three-month period during the onset of undergraduate medical training in a new curriculum, a longitudinal approach to investigating student resistance would be beneficial in exploring how resistance might change over time. Longitudinal research could track changes in resistance throughout different stages of training to

identify how certain aspects of the formal and informal curriculum shape resistance towards the inclusion of social justice in medical training and practice. In doing so, this could identify time periods where resistance is exacerbated and social justice values may become eroded in order to intervene. Additionally, further research is needed to investigate whether resistance to social justice education impacts the development of relevant skills necessary in clinical practice, such as how structural competency is enacted during patient interactions.

Another potential area of research could include investigating student resistance to social justice education across different cohorts of students and comparing them to better discern patterns of behaviours or characteristics that may not be evident by looking at a single group. This could also include exploring student resistance to social justice education across different institutions, or among different health professions such as nursing, social work, physical therapy, and occupational therapy. By looking at groups across different contexts and settings, researchers could better understand the impact of different factors on student resistance such as institutional policies, and cultural differences as these might vary across contexts.

4.6 Strengths and Limitations

A strength of this research study was my use of case study as an overarching methodology as it allowed for an in-depth exploration of a complex phenomenon within its real-life context. Utilizing a case study approach allowed this inquiry to be attentive to the local factors (specific to the RIME curriculum and the University of Calgary) as well as the extra-local factors influencing student resistance. By following the best practices of case study research, I was able

to better structure the investigation, ensuring that data collection methods were aligned with the research objectives and that the process of inquiry remained close to the data. The use of case study research also allowed for a more nuanced approach to understanding the complexity of student resistance by providing flexibility to the data collection strategies given that both students and faculty members were selected as participants. This approach allowed the research team to delve into the experiences, perceptions, and behaviours of students, offering detailed descriptions of their resistance. Additionally, the use of phenomenography as an analytic lens offered depth to this inquiry, allowing for the variation of student experiences and perceptions to be unpacked.

There were also limitations identified with this study. During the early stages of this study, the intention of the research team was to use semi-structured interviews and in-person observations as data collection methods given that case study research provides flexibility in data collection methods. However, due to the barriers that presented themselves during the process of institutional and research ethics board (REB) approval, in-person observations were not permitted to the study team by the UME and REB. The lack of observations presented as a limitation of this study because witnessing accounts of student resistance first-hand might have added richness to the descriptions. Given that the study was focused on student resistance to social justice education within one specific institutional context, some of the findings of the study may lack generalizability to other contexts and institutions. Specifically, the curriculum structure in this institution and participant demographics may have influenced student resistance. Additionally, the duration of the study was short due to time constraints, which may have limited the accounts of student resistance as it evolved. The use of snowball sampling could have

introduced sampling bias as participants may have recommended students based on their own perceptions of resistance, or those they felt comfortable recommending if they were in each other's close circle of peers. Finally, since the study also relied on self-reported data from medical students and faculty members, it introduces the potential for response bias and social desirability bias. Therefore, participants may have provided responses that they felt were as socially desirable or potentially underreported instances of student resistance.

Chapter Five: Conclusion

This case study offers empirical insight into the complex nature and intricate dynamics of medical student resistance to social justice education during the inaugural block of the new pre-clerkship curriculum implemented at the University of Calgary. Contextual factors were identified specific to the implementation of the new curriculum influenced the nature and extent of student resistance. This included the extent that pedagogical uncertainties and logistical challenges impacted student engagement and receptivity to the new curriculum. Furthermore, the broader sociopolitical climate and pervasive influence of social media also played significant roles in shaping student resistance to social justice content in the new curriculum.

Through an exploration of the cognitive, emotional, and behavioural dimensions of resistance, this study has highlighted the various ways in which medical students navigate and respond to social justice education in medicine. Their reactions and responses varied from skepticism towards the relevance of social justice content to discomfort with sensitive topics and disengagement during sessions. Students' reasons for resisting were shaped by different individual, interpersonal, professional, and societal factors.

It is important to recognize the importance of different approaches to curriculum design and engagement strategies that could address the diverse needs and perspectives of medical students. Cultivating a supportive, safe, and inclusive learning environment that encourages critical thinking, intellectual inquiry, and respectful debate and dialogue is important for meaningfully engaging students with social justice topics. Ultimately, by embracing an understanding of

student resistance and using interventions informed by theory and empirical evidence, undergraduate medical programs can take steps toward better integrating social justice and equity teaching and learning within their programs.

As little was known about how and why resistance occurs in medical school, this research is timely considering the increasing emphasis on social change and equity throughout society at large but particularly important in anticipation of a new national competency framework being released in 2025 which is expected to emphasize such areas in contemporary physician training. Through developing a richer understanding of resistance to social justice teaching and learning, health professions education programs may be better prepared and positioned to navigate these oppositional behaviours in practice.

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Appendix A: Ethics Certificate

Conjoint Health Research Ethics Board
Research Services Office
2500 University Drive, NW
Calgary AB T2N 1N4
Telephone: (403) 220-2297
chreb@ucalgary.ca

CERTIFICATION OF INSTITUTIONAL ETHICS APPROVAL

The Conjoint Health Research Ethics Board (CHREB), University of Calgary has reviewed and approved the following research protocol:

Ethics ID:	REB23-0922
Principal Investigator:	Allison Brown
Co-Investigator(s):	Rachel Ellaway Rabiya Jalil
Student Co-Investigator(s):	Adibba Adel
Study Title:	Exploring Medical Students' Experiences with a Novel Medical School Curriculum Component
Sponsor:	

Effective: 26-Sep-2023 **Expires:** 26-Sep-2024

The following documents have been approved for use:

- Recruitment Poster, 1, July 16, 2023
- Revision Recruitment Email for Interviews Clean Version 2, 2, September 25, 2023
- Implied Consent Form, 1, July 16, 2023
- Interview Guide, 1, July 16, 2023
- Thesis Proposal, 1, September 12, 2023

The CHREB is constituted and operates in accordance with the current version of the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (TCPS); International Conference on Harmonization E6: Good Clinical Practice Guidelines (ICH-GCP); Part C, Division 5 of the Food and Drug regulations, Part 4 of the Natural Health Product Regulations and the Medical Device Regulations of Health Canada; Alberta's Health Information Act, RSA 2000 cH-5; and US Federal Regulations 45 CFR part 46, 21 CFR part 50 and 56.

You and your co-investigators are not members of the CHREB and did not participate in review or voting on this study.

Restrictions:

This Certification is subject to the following conditions:

1. Approval is granted only for the research and purposes described in the application.
2. Any modification to the approved research must be submitted to the CHREB for approval.
3. Reportable events (SAE's, new safety information, protocol deviations, audit findings, privacy breaches, and participant complaints) are to be submitted in accordance with the Board's reporting requirements.
4. An annual application for renewal of ethics certification must be submitted and approved by the above expiry date.
5. A closure request must be sent to the CHREB when the research is complete or terminated.

Approval by the REB does not necessarily constitute authorization to initiate the conduct of this research. The Principal Investigator is responsible for ensuring required approvals from other involved organizations (e.g., Alberta Health Services, community organizations, school boards) are obtained.

Approved By: **Date:**

Stacey A. Page, PhD, Chair, CHREB 26-Sep-2023 8:47 AM

Note: This correspondence includes an electronic signature (validation and approval via an online system).

Appendix B: Letter of Initial Contact

Subject Line: Invitation to Participate in a Research Study Seeking to Understand Student Perceptions of the New RIME Curriculum

Dear [name],

You have been identified as a potential participant for an ongoing research study. The purpose of this study is to broadly explore and understand the range of student reactions and buy-in to some of the changes to the pre-clerkship curriculum in the CSM as part of the "Re-Imagining Medical Education" (RIME) initiative.

We would like to invite you to participate in a semi-structured interview to explore your perceptions towards the new pre-clerkship curriculum, particularly the inclusion of teaching relating to the concepts of structural competency, health equity, and social justice. Participation in this study is entirely voluntary. The interview will be led by a graduate student. The interview would be conducted via Zoom, be audio-recorded, take approximately 60 minutes, and can be scheduled at a time that is convenient to your based on your own preference and availability. Participants will be offered an e-gift card for their study at a rate of $25 for every 15 minutes, up to $100 for a one-hour interview.

This study has been approved by the University of Calgary Conjoint Health Research Ethics Board (REB23-0922). If you are interested in learning more, please see the attached document that provides a comprehensive overview of the study and your rights as a participant. To discuss this study further and/or arrange a time to conduct the interview, please respond to this email with some potential dates and times that you may have availability for an interview.

Sincerely,

Adibba Adel, Dr. Allison Brown
Study Investigators
University of Calgary - Cumming School of Medicine
Contact Email: adibba.adel1@ucalgary.ca

Appendix C: Initial Interview Guide

Version Date: September 29, 2023

Interviewer Preamble

Thank you for your interest in being part of our study. As outlined in the study information and consent form, the purpose of this study is to broadly explore and understand the broader forces at the roots of student reactions to changes to the pre-clerkship curriculum in the CSM. We want this to be a safe and supportive space for you to freely express your genuine thoughts and feelings about these topics. As a reminder, you are not obligated to answer any questions you do not wish to answer, and you are free to end the interview at any moment. This interview will be audio-recorded so that it may be transcribed and analyzed. To promote anonymity and confidentiality, any identifying information, such as your name, will be erased moving forward, as specified in the consent form.

Before I begin the audio recording to capture your verbal consent and proceed with the formal interview, do you have any questions?

START AUDIO RECORDING

Verbal Consent to Participate: For the record, do you consent to participate in this study?

1. **Opening Questions**
    a. (Student) What was your initial reaction when you first heard about the new pre-clerkship curriculum that is part of the "Re-Imagining Medical Education" or RIME initiative?
    b. (Faculty) Can you briefly tell me a little bit about your current roles and responsibilities within the Undergraduate Medical Education or UME program here in Calgary, such as what courses or sessions you have taught in the traditional curriculum?
2. **Intermediate Questions: Reactions to Curriculum Changes**
    a. (Student) How much do you know about the health equity and structural competency portion of the new curriculum?
    b. (Student) How do you feel about the integration of social justice topics within the curriculum thus far?
    c. (Student) What were your expectations in terms of social justice education within the curriculum and how have they changed?

d. (Faculty) How did the students you have engaged with initially react to the health equity and structural competency component of the curriculum?
e. (Faculty) What are some of the main factors/topics that influence student reactions to curriculum changes?
f. (Faculty) Can you describe any notable reactions or responses from students regarding the health equity and structural competency components of the curriculum?

3. **Intermediate Questions: General resistance**
    a. (Student) Can you describe any instances where you felt hesitant or resistant towards social justice education in the curriculum?
    b. (Student) Are there any specific classroom or learning activities related to social justice education that you have found particularly challenging or uncomfortable?
    c. (Student) Can you share any personal experiences or stories where you witnessed or participated in acts of resistance or hesitancy towards social justice education?
    d. (Faculty) What do you think might make students your peers in general, reluctant or perhaps hesitant to be involved in learning activities regarding health equity or social justice topics?
    e. (Faculty) How do you think resistance from students impacts learner engagement and learning outcomes?
    f. (Faculty) In your experience, what are some common ways that students display acts of resistance or hesitancy towards social justice education in the curriculum?
    g. (Both) Reflecting on your experiences, what do you think are the potential consequences or implications of students' resistance or hesitancy towards social justice education in terms of their future practice as healthcare professionals?
4. **Ongoing prompts:**
    a. Can you give an example?
    b. How did that experience make you feel?
    c. You mentioned ____, can you describe that in more detail for me?
5. **Closing Questions**
    a. Is there something else you might not have thought about before that occurred to you during this interview?
    b. For this study we are using a snowball sampling method. The inclusion criteria are first-year medical students at the University of Calgary or faculty who can share insights on students' perceptions of the new curriculum. Whom would you recommend that I interview next for this study?

Appendix D: Final Interview Guide

Version Date: October 12, 2023

Interviewer Preamble

Thank you for your interest in being part of our study. As outlined in the study information and consent form, the purpose of this study is to broadly explore and understand the broader forces at the roots of student reactions to changes to the pre-clerkship curriculum in the CSM, specifically about the longitudinal integration of health equity, structural competency, and social justice in the curriculum. We want this to be a safe and supportive space for you to freely express your genuine thoughts and feelings. As a reminder, you are not obligated to answer any questions you do not wish to answer, and you are free to end the interview at any moment. This interview will be audio-recorded so that it may be transcribed and analyzed. To promote anonymity and confidentiality, any identifying information, such as your name, will be erased moving forward, as specified in the consent form.

Before I begin the audio recording to capture your verbal consent and proceed with the formal interview, do you have any questions?

START AUDIO RECORDING

Verbal Consent to Participate: For the record, do you consent to participate in this study?

1. **Opening Questions**
    a. (Student) How do you think your personal background, including factors like upbringing, educational background, training, cultural influences, or life experiences, shapes your perspective on equity, diversity, and inclusion?
    b. (Student) What was your initial reaction when you first heard about the new pre-clerkship curriculum that is part of the "Re-Imagining Medical Education" or RIME initiative?
    c. (Faculty) Can you briefly tell me a little bit about your current roles and responsibilities within the Undergraduate Medical Education or UME program here in Calgary, such as what courses or sessions you have taught in the traditional curriculum?
2. **Intermediate Questions: Reactions to Curriculum Changes**

a. (Student) How much do you know about the health equity and structural competency portion of the new curriculum?-might need to revise this question to make it a bit clearer

If unaware: The "health equity and structural competency" component of the curriculum aims to integrate teaching surrounding issues around the social and structural forces that shape health and ultimately underpin health disparities. The new curriculum will have a more routine incorporation of this kind of content into every week rather than in the current peripheral courses where some of this content may be taught, like the current Public Health or Global Health courses. This also means deeper dialogue surrounding health inequities and, ultimately, social justice.

By "structural forces", we mean the range of broader systems and institutions that operate at a macro level in ways that impact societies, such as racism, capitalism, and colonialism. This shifts our attention away from the more well-known "social determinants of health" towards the structural determinants of health. For example, rather than teaching that race is a social determinant, we would consider teaching about how systemic racism manifests in our social structures.

b. (Student) How do you feel about the integration of social justice topics within the curriculum thus far?
c. (Student) What were your expectations in terms of social justice education within the curriculum and how have they changed?
d. (Faculty) How did the students you have engaged with initially react to the health equity and structural competency component of the curriculum?
e. (Faculty) What are some of the main factors/topics that influence student reactions to curriculum changes?
f. (Faculty) Can you describe any notable reactions or responses from students regarding the health equity and structural competency components of the curriculum?

3. Intermediate Questions: General resistance

a. In general, if you're thinking about your peers in your class, what do you think might make folks more reluctant to be engage in discussions relating to health equity, structural competency, and social justice?
b. (Student) Can you describe any instances where you felt hesitant/reluctant or resistant towards social justice education in the curriculum?
c. (Student) Are there any specific classroom or learning activities related to social justice education that you have found particularly challenging or uncomfortable?
d. (Student) Can you share any personal experiences or stories where you witnessed or participated in acts of resistance or hesitancy towards social justice education?

e. (Student) How do you think differing expectations among students might impact the overall reception and effectiveness of the curriculum?
f. (Student) How do you conceptualize or define any boundaries between what you see as needs to be taught in medical school and then where social justice content fits in the curriculum?
g. (Faculty) What do you think might make students in general, reluctant or perhaps hesitant to be involved in learning activities regarding health equity or social justice topics?
h. (Faculty) How do you think resistance from students impacts learner engagement and learning outcomes?
i. (Faculty) In your experience, what are some common ways that students display acts of resistance or hesitancy towards social justice education in the curriculum?
j. (Both) Reflecting on your experiences, what do you think are the potential consequences or implications of students' resistance or hesitancy towards social justice education in terms of their future practice as healthcare professionals?

4. **Ongoing prompts:**
    a. Can you give an example?
    b. How did that experience make you feel?
    c. You mentioned ____, can you describe that in more detail for me?
5. **Closing Questions**
    a. Is there something else you might not have thought about before that occurred to you during this interview?
    b. For this study we are using a snowball sampling method. The inclusion criteria are first-year medical students at the University of Calgary or faculty who can share insights on students' perceptions of the new curriculum. Whom would you recommend that I interview next for this study?

STOP RECORDING

Appendix E: Consent to Participate in Research

UNIVERSITY OF CALGARY
CONSENT TO PARTICIPATE IN RESEARCH

Study Title: Exploring Medical Students' Experiences with a Novel Medical School Curriculum Component
Sponsor: The University of Calgary
Investigators: Adibba Adel, Allison Brown

Contact Information:
Adibba Adel, BHSc
Lead Student Investigator
Graduate Student, University of Calgary
Cumming School of Medicine
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Dr. Allison Brown, PhD
Principal Investigator
Assistant Professor in the Department of Medicine
University of Calgary - Cumming School of Medicine
Email: allison.brown@ucalgary.ca

Introduction
A research team in the Cumming School of Medicine at the University of Calgary are conducting a study.

This consent form is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, please ask. Take the time to read this carefully and to understand any accompanying information. You will receive a copy of this form for your records.

You were identified as a possible participant in this study because you are currently a first-year medical student or faculty member at the University of Calgary. It is important for you to know that your participation in this research study is voluntary.

Why is this study being done? The purpose of this study is to explore and understand the broader forces at the roots of student reactions to the pre-clerkship curriculum in the CSM, such as the inclusion of teaching and learning relating to the concepts of structural competency, health equity, and social justice.

How many people will participate? Between 2023-2024 we anticipate interviewing upwards of 20 medical students and faculty members.

What will happen if I take part in this study? If you volunteer to participate in this study, you will complete a semi-structured interview. All interviews will be conducted by the lead student investigator of this study, Adibba Adel. The interview may last approximately 60 minutes in duration depending on your responses and will involve asking a set of pre-defined questions first to facilitate a casual dialogue between you and the interviewers.

It is important to know that you do not have to answer any questions you do not wish to answer throughout the interview. Each interview will be scheduled at a time that is convenient for you and will be conducted virtually through Zoom.

The interview will be audio-recorded and transcribed. Transcripts will be reviewed by a member of our study team to ensure accuracy and remove any identifying variables, such as your name, prior to analysis. Once this is completed, you will then receive a copy of your interview transcript for review. Within one week of receiving this transcript, you can notify the research team if there is any content in the transcript you wish to remove from your data or if you wish to withdraw from the study. Transcripts will then be analyzed by a research team using qualitative research methods.

How long will I be in this study? Individuals who elect to participate in this research can expect the interview to last approximately 60 minutes in duration on a date and time of their choosing.

Are there any potential risks or discomforts that I can expect from this study? Deductive disclosure, or internal confidentiality, may be a risk to participants in this study. Deductive disclosure occurs when participants are identifiable due to traits or attributes that are described in the study data, even when data has been de-identified. Deductive disclosure may be a risk for initial participants, when the participant pool is a small sample size. There is a possible minimal risk given the sample size throughout this study (N=20 students and faculty).

Participants who elect to participate in an interview may experience discomfort or anxiety when prompted to share their perceptions and beliefs about the new curriculum, or dialogue exploring why students might be reluctant or hesitant towards certain elements of the new curriculum such as the inclusion of structural competency, health equity, and social justice. Participants may feel that these topics are sensitive subjects and may be worried about how they are perceived by the interviewer or how their responses may be shared and linked to them upon dissemination. To

mitigate these potential risks, participants can choose which interview questions they answer, stop the interview at any time, and withdraw from the study up to one week after the date of their interview. The interviewer will also offer participants an optional debrief following the interview, once the audio-recording device has been turned off.

Are there any potential benefits if I participate? While there are no direct benefits to participants, the benefits to the scientific and education community may indirectly benefit participants and stakeholders of medical education.

What other choices do I have if I choose not to participate? There is no alternative to participating in this study if you do not wish to participate in an individual semi-structured interview. You are free to choose to not participate in this study and there are no consequences to you if you choose to not participate in this study.

Can I stop being in this study? Participants can decide to withdraw their data from this study up until one week after the date of their interview. If you wish to withdraw from the study, simply notify any member of the research team you are thinking about stopping or wish to withdraw completely.

Withdrawal of Study Data Participants can withdraw from this study up until one week after their interview, as after this point data will be incorporated into the analysis and will be impossible to extract without implicating the overall findings of the study.

Will I be paid for participating, or do I have to pay for anything? Study participants will be offered an e-gift card for their study at a rate of $25 for every 15 minutes, up to $100 for a one-hour interview. E-gift cards will be sent to you through a service called ‘EverythingCard’ which allows you to select a vendor of your choice.

Will information about me and my participation be kept confidential? The study investigators will do their absolute best to make sure that your private information is kept confidential. Information about you will be handled as confidentially as possible, but there is always the potential for an unintended breach of privacy. Direct information will include your name and email, collected to correspond with you throughout this study and ensure you receive the e-gift card following your interview. Indirectly identifying information includes the explicit naming of individuals or places throughout the interview, which will be de-identified in the transcripts during data cleaning but remain in the raw audio file.

The results and all material related to this study will be stored in a secure password protected drive on the University of Calgary server. This server will only be accessible to the members of the study team. Interviews will be conducted over Zoom using a meeting scheduled through the University of Calgary's institutional license. All virtual interviews on Zoom will be password protected. Interviews will be audio-recorded, and all audio files will be stored securely on a University of Calgary server OneDrive folder that only members of the team will have access to. All files, including participant lists and transcripts, will be safely stored on this University of Calgary server OneDrive folder.

How long will information from the study be kept? Data will be retained for 5 years following the completion of the study as per the University of Calgary's Data Retention Policy. There are no plans to share the data from this study with other researchers. Any future use of this research data is required to undergo review by a Research Ethics Board.

Whom may I contact if I have questions about this study? You may contact any member of the research team if you have questions about this study. Primary points of contact include the primary student investigator, Adibba Adel (adibba.adel1@ucalgary.ca) and the faculty Principal Investigator, Dr. Allison Brown (allison.brown@ucalgary.ca).

Conjoint Health Research Ethics Board (CHREB): If you have any questions concerning your rights as a possible participant in this research, please contact the Chair, Conjoint Health Research Ethics Board, University of Calgary at 403-220-7990.

How can I find out about the study results? Study results will be submitted for publication in a peer reviewed journal after the study concludes in 2024.

What are my rights if I take part in this study? Taking part in this study is entirely your choice. You can choose whether you want to participate. Whatever decision you make, there will be no penalty to you. You have a right to have your questions answered before deciding whether to take part. If you decide to take part, you do not have to answer any questions you do not want to. You may leave the study at any time up until one week after your interview.

How do I indicate my agreement to participate? If you agree to participate, please arrange an interview time with a member of the research team. At the start of the interview once the audio recording has begun you will be asked if you agree to participate. By answering affirmatively, you indicate that you have understood to your satisfaction the information regarding your participation in the research project and agree to take part in the study. In no way does this waive your legal rights nor release the investigators or involved institutions from their legal and professional responsibilities.

Appendix F: Summary of Feedback for UME to Optimize HE-SC Curriculum

Category of Feedback	**Summary**
Curriculum Organization and Integration	HE-SC sessions can be improved with time limits suggested for focus and organization. Some propose integration of social justice topics with pathophysiology discussions for balance
Transformational Topics Lead to Overall Curriculum Satisfaction	Call for more sessions addressing transformational topics like anti-fat bias and gender-affirming care, expressing overall satisfaction with curriculum implementation
Instructor Diversity and Facilitation of Discussions	Improving facilitation of discussions on social justice content could look like increasing instructor diversity and handling conflicts effectively
Patient Interaction	Desire for real-world patient perspectives alongside theoretical knowledge
Anonymous Feedback Mechanisms	Some prefer using polls and asking session facilitators question anonymously
Incorporation of Diverse Perspectives	Importance of incorporating diverse perspectives in panels and presentations

Appendix G: Participant Demographic Information

Gender Identity

Woman	**13**
Man	**5**
Did not Specify	**5**

Racial Identity

Racialized	**9**
Indigenous	**[redacted]**
White	**4**
Did not Specify	**8**

Indigeneity

Indigenous	**[redacted]**
Settler	**10**
Did not Specify	**11**