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A Situation Analysis of Indigenous Health Education at the Cumming School of Medicine, University of Calgary

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An abstract of

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Abstract

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The history of colonization has resulted in major health disparities and poor health outcomes for Indigenous peoples across Canada. Mandates such as the United Nations Declaration on the Rights of Indigenous Peoples and the Truth and Reconciliation Commission's (TRC) Report emphasize equal rights for Indigenous peoples around the world and encourage institutions to acknowledge and redress the long-term disparities that colonization has caused for Indigenous peoples, respectively.

The TRC Report directly addresses Canadian healthcare education, urging educators to provide Indigenous health training for all healthcare professionals, including "intercultural competency, conflict resolution, human rights and anti-racism." This could start to address the documented cycle of misunderstanding and miscommunication between medical providers and Indigenous patients who access mainstream healthcare. Indigenous people experience systemic racism in the form of stereotyping, and this results in poorer quality of healthcare services. The literature also demonstrates that medical providers recognize and acknowledge the systematic racism in healthcare towards Indigenous people.

The qualitative research of this project draws on eleven in-depth interviews with physicians, educators, medical education experts and program directors at the Cumming School of Medicine (CSM) at the University of Calgary and an Alberta Health Services Cultural Competency Advisor. Data were transcribed, coded with MAXQDA software, and analyzed using thematic data analysis strategies. Findings illustrate current medical education curriculum and indicate that Indigenous health is only sporadically a focus in post-graduate medical education programs at CSM. Champions and allies support and lead Indigenous health initiatives, but piecemeal approaches are not enough to educate and train culturally competent medical providers. The framework in the last chapter of this work details suggested steps for CSM moving forward to provide equitable Indigenous health education and training. These suggestions include steps for ensuring longevity of initiatives, objectives and competencies to consider for Indigenous health, pedagogical approaches from the medical humanities to consider, and the importance of collaboration between physician educators, education experts and Indigenous health content experts to provide evidence-based education that achieves measurable outcomes.

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And finally, to my fellow classmates and friends at Rollins, thank you all for the many opportunities to be inspired, share ideas, work together, grind together and have celebratory beers at each checkpoint. Cheers to the world's newest public health professionals!

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List of Abbreviations and Definitions

U of C	University of Calgary
CSM	Cumming School of Medicine
UME	Undergraduate medical education
PGME	Post-graduate medical education
CME	Continuing medical education
RCPSC	Royal College of Physicians and Surgeons of Canada
CFPC	College of Family Physicians of Canada
OHMES	Office of Health and Medical Education Scholarship
SDOH	Social determinants of health
TRC	Truth and Reconciliation Commission
MH	Medical Humanities

INDIGENOUS PEOPLES

Throughout this thesis the term "Indigenous" is used as a term of inclusion to describe individuals and populations who consider themselves as being related to and/or having historical continuity with people whose civilization is in what is now known as Canada, the United States, the Americas, the Pacific Islands, New Zealand, Australia, Asia and Africa. This term is also used instead of the constitutionally defined Canadian term "Aboriginal." Indigenous Canadians comprise of three distinct groups: First Nations, Inuit and Métis.

HEALTH DISPARITIES/HEALTH INEQUALITIES

Differences in the presence of disease, health outcomes, or access to health care between population groups (Boston Public Health Commission).

HEALTH INEQUITIES

Differences in health that are not only unnecessary and avoidable but, in addition, are considered unfair and unjust. Health inequities are rooted in social injustices that make some population groups more vulnerable to poor health than other groups (Boston Public Health Commission).

List of Tables and Figures

CHAPTER ONE: INTRODUCTION

Introduction and Rationale

In 2017, Prime Minister Justin Trudeau stood before the United Nations General Assembly and recognized that the "failure of successive Canadian governments to respect the rights of Indigenous peoples in Canada is our great shame"(Government of Canada (a), 2017). The Indian Act of 1876 was neither the first piece of legislation nor the last in a long history of attempts to control, oppress and assimilate Indigenous peoples. The most egregious of colonial acts was the implementation of the Residential School System (Bombay et al., 2014). In partnership between the government of Canada and various church denominations, children between the ages of 4 and 16 years were taken from their families with the intentions of assimilating Indigenous Canadians into European culture by isolating them from the influences of their communities and traditions. Over 150,000 children were forced to attend residential schools between 1831 and 1996. Most Canadians know little of the Indigenous side of Canadian history. Those who have learned of it in recent years should also understand that cultural genocide has significantly contributed to the dramatic health inequities that exist for Indigenous people today. A quote that has been adapted to education and environmental health is also appropriate for intergenerational trauma: "You start raising a child not at birth, or even conception, but 100 years before the child is born." The disparities and inequities that have historically challenged Indigenous people will continue to have negative effects on generations to come. The purpose of this thesis is not to belabor the traumatic experiences of Indigenous Canadians. Rather, this study will explore to what extent the current medical education system trains culturally competent medical providers to address the health inequalities that have resulted from the historical trauma of inequities of colonization. Though the Government of Canada

issued a formal apology for its role in the Residential School System in 2008 (Government of Canada, 2008), Prime Minister Trudeau's message nearly a decade later confirms that there remains a lot of work to do in redressing the long history of mistreatment of Indigenous people across Canada.

Studies have documented the Indigenous experience of anticipation and actual poor treatment due to endemic racism in the healthcare system. A cycle of misunderstanding and poor quality of healthcare provision persists for Indigenous patients across Canada. Some Indigenous people delay accessing healthcare due to the anticipation of stereotyping from doctors, so when they finally do seek medical attention their illness may be more advanced. The research of Tang and Browne (2008) investigated how stigma affects the care that Indigenous patients receive. They found that the worries Indigenous people have about stereotypes placed on them are not unfounded paranoia, and they describe being denied treatment or services on the bases that they were drunk or being "troublemakers". Other studies have also shown that medical providers recognize and acknowledge the systemic racism toward Indigenous people by healthcare workers (Wylie & McConkey, 2019). It is well documented that systemic racism creates a significant barrier to and decreases quality of mainstream healthcare for Indigenous populations across Canada (Allan, 2013; Allan & Smylie, 2015; Boyer & Bartlett, 2017; Kurtz et al., 2008). Currently, post graduate medical education programs are charged with the responsibility of educating and training generations of physicians who are firmly grounded in the principles of practicing culturally competent care and committed to the reduction of health care disparities (Casey & Chisholm-Burns, 2019). Medical schools around Canada are increasingly committing to educating and training medical professionals who can go on to provide equitable and quality healthcare to Indigenous populations.

Problem Statement

Indigenous people experience systematic racism when accessing mainstream healthcare in urban centers across Canada. Stereotyping and implicit bias among medical providers lead to poor quality of care and poorer health outcomes for Indigenous populations. Appropriate Indigenous health education and training with objectives to teach medical providers how to become aware of and challenge implicit bias would lead to more culturally competent medical providers who are able to provide quality care for Indigenous people.

Purpose Statement

In the summer of 2019, the University of Calgary (U of C) hosted a Masters student from Emory University's Rollins School of Public Health. Initiatives at the U of C included focuses on Indigenous health. One specific area focused on quality of healthcare and improving Indigenous health outcomes through training more culturally competent medical providers. The methods through which this training was conducted varied from didactic to developing simulation-based techniques. The goal of this project is to develop and suggest a framework for the Cumming School of Medicine (CSM) at the U of C to provide equitable Indigenous health education and training for medical providers that informs quality of care for Indigenous peoples that will remain in curriculum. This plan includes steps for ensuring longevity of initiatives, objectives and competencies to consider for Indigenous health, pedagogical approaches from the medical humanities to consider, and the importance of collaboration between physician educators, education experts and Indigenous health content experts to provide evidence-based education that achieves measurable outcomes. The greatest implication for this study is to suggest institutions such as CSM and the U of C to include commitments to Indigenous health equity in its vision or mission statement as other medical institutions have across the country.

Research Objectives

Objective 1: To indicate the extent to which medical education includes a focus on Indigenous health at Cumming School of Medicine.

Objective 2: To provide a framework for incorporating Indigenous health education at Cumming School of Medicine.

CHAPTER TWO: LITERATURE REVIEW

Historical background

Indigenous peoples have suffered harmful effects from colonization throughout history. These harms include the introduction of diseases (Waldram et al., 2006), forced displacement, and assimilative policies. Of the 1.2 million Indigenous people across Canada today, a growing number are migrating to urban centers (S. Y. Tang et al., 2015). Indigenous people living off-reserve have planted new roots in urban centers such as Winnipeg, Edmonton, Vancouver, Toronto, and Calgary, to name a few. Regardless of where they live, Indigenous people across the country experience poorer health compared to other Canadians. They have historically experienced higher infant mortality rates, lower life expectancy rates, and a higher burden of cancer and chronic diseases such as diabetes (Ghosh & Spitzer, 2014; Young et al., 2000). In 2011, life expectancy at age one was 81 years for male, non-Indigenous Canadians, 72 years for First Nations, 77 years for Metis, and 70 years for Inuit people (Tjepkema et al., 2019). Among youth, suicide and self-injury has been a leading cause of death in some areas (Turner, 2014). Unemployment rates are also doubled that for the general population (Allan, 2013).

Residential School System

The most egregious act committed towards Indigenous peoples was the implementation of the Residential School System (Bombay et al., 2014). Residential schools were designed to assimilate Indigenous Canadians into European culture by forcefully removing children from their families to isolate them from the influences of their communities and traditions (Jung, 2009). This was executed through partnerships between the Canadian government and churches of various denominations between 1831, when Mohawk Indian Residential School was first opened in Ontario, and 1996 when Gordon Indian Residential School closed in Saskatchewan

(Castellano et al., 2008; Where are the Children, 2001). It is estimated that over 150,000 Indigenous children between the ages of 4 and 16 years attended residential schools during this period (The Union of Ontario Indians, 2013). It was common for children in residential schools to be punished for speaking their own language and practicing their cultural traditions, subjected to sexual and physical abuse and overt racism, and supplied inadequate housing and nutrition and healthcare.

Fragmented relationships

Indigenous patients often interact with doctors who may not recognize or know how to acknowledge the barriers or personal challenges they face when accessing healthcare. Indigenous women identified three key issues that negatively affected their access to health services: racism, discrimination and communication barriers (Kurtz et al., 2008). Systemic racism in the Canadian healthcare system negatively affects the ability of medical providers to adequately serve and provide quality care to Indigenous populations. Studies have described the way in which stereotypes and bias have played a negative role in doctor-patient interactions (Boyer & Bartlett, 2017; Kurtz et al., 2008; SannieY. Tang & Browne, 2008). For example, when accessing healthcare, Indigenous patients have identified being stereotyped as being poor, alcoholic or a troublemaker, and for women that they are unfit mothers (Allan, 2013; Browne et al., 2011). Another example of stereotyping is when medical providers ignore pain experienced by Indigenous patients with the assumption that they are narcotic-seeking (Allan & Smylie, 2015). In urban areas, Indigenous people anticipate doctors identifying them as Indigenous and poor, resulting in doctors stereotyping them and reducing their chances of receiving help (Browne et al., 2011). This is such a common occurrence that, before arriving, Indigenous people often strategize how to manage negative interactions with providers in the emergency department

(Browne et al., 2011). The most incredulous acts of systemic racism include a recent report of Indigenous women being coerced into sterilization (Boyer, 2017). Medical providers also recognized systemic racism as an issue in the Canadian healthcare system (Wylie & McConkey, 2019).

Other existing approaches

It would be remiss to not acknowledge other major target areas at the structural level of the healthcare field that should be a focus to improve Indigenous health from other angles. One area is jurisdictional responsibilities (Lavoie, 2018). The Indian Act of 1876 obligated the federal government of Canada to assume responsibilities for financial support and some healthcare provision for Indigenous health. Then, the Canada Health Act (1985), introducing what most people know today as universal healthcare, gave responsibility to the provincial government for healthcare provision. Federal and provincial law both include jurisdictional responsibilities over Indigenous healthcare, but they are inconsistent and incomplete, leaving healthcare jurisdiction for Indigenous people in an ambiguous space (Cook, 2003). Another area is access to services for Indigenous people living on reservations. Universal healthcare "facilitates reasonable access to health services without financial or other barriers." Amartya Sen stated that for health equity, it cannot be assumed that finances are the only barrier to healthcare access (Sen, 2002), and the most remote places still face challenges to physically accessing healthcare facilities. Lack of indigenous representation in healthcare is another major gap needing addressed (Truth and Reconciliation Commission of Canada, 2015b). Each of these systems levels approach deserve attention and action, but the focus of this thesis is the structure of the medical education system and the inclusion of Indigenous health education.

Truth and Reconciliation Commission

Between 2007 and 2015, as one element of the Indian Residential Schools Settlement Agreement (Fullenwieder & Molnár, 2018), the Truth and Reconciliation Commission of Canada (TRC) conducted a multi-year process of collecting stories from survivors, communities and those affected by the Residential School system in order to inform all Canadians of what took place and the enduring effects on Indigenous peoples today (Truth and Reconciliation Commission of Canada, 2015a). At its conclusion in 2015, the TRC released its report of recommendations to the Government of Canada (Truth and Reconciliation Commission of Canada, 2015b). The TRC report included 94 Calls to Action for Canadian institutions in all sectors (i.e. education, health, child welfare, justice, and language and culture) to acknowledge and redress the long-term disparities that colonization has caused for Indigenous people. Calls 23 and 24 are specifically aimed at healthcare education, urging educators to provide Indigenous health training for all healthcare professionals, including "intercultural competency, conflict resolution, human rights and anti-racism." It has been contended that healthcare setting is not just a clinical space but also a social space in which unequal power relations along the intersecting axes of race and class are negotiated (S. Y. Tang et al., 2015). These two spaces should have equitable attention, and training and education should be a focus for both.

Global health context

There are an estimated 370 million Indigenous people living in 90 countries globally (Sarfati et al., 2018). Indigenous peoples are often faced with health disparities and inequities in terms of access and quality of care when compared to their non-Indigenous counterparts. Notably, higher rates of non-communicable diseases and lower life expectancies are prevalent among Indigenous peoples in high-income countries, such as the United States, Canada,

Australia and New Zealand (Abdolhosseini et al., 2016). Indigenous Australians, on average, have a lower life expectancy of ten years (Brown et al., 2016), and an approximately 30% higher cancer mortality rate due to health outcomes and comorbidities (Zhang et al., 2011). Life expectancy for American Indians and Alaska Natives is, on average, around 7 years lower than their non-Hispanic, white counterparts (Arias et al., 2014; Dankovchik et al., 2015). Extensive research in the United States has shown the relationship between race and health. Evidence demonstrates that people who experience racism also have poorer physical and mental health outcomes (Allan & Smylie, 2015; Blair et al., 2013). A population study published in The Lancet (Anderson et al., 2016) described the health and social status of 28 Indigenous populations from 23 countries relative to benchmarks of their non-Indigenous population. The size and rate difference varied, but the data provided evidence for poorer health outcomes for Indigenous populations in life expectancy at birth, infant mortality, maternal mortality, low birthweight, child malnutrition, adult obesity, education attainment, and economic status.

Disparities and inequities exist for Indigenous peoples all around the world. This has led to important global initiatives that seek reconciliation and attempts to close these gaps. The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (UN General Assembly, 2007) was an instrument adopted by the United Nations General Assembly in 2007 that speaks to the fundamental importance of accessing culture, traditions and reaffirming cultural identity as the foundation for Indigenous people's autonomy and equity. The declaration also speaks to an Indigenous right to health in social justice terms through the need for equitable access to social resources and by elimination of any systemic barriers. Accepted by majority of countries in 2007, Canada, the United States, Australia and New Zealand were four countries of note that voted against. Canada eventually changed its vote in 2016 with a shift in government

(APTN National News, 2016). Indigenous health issues are global health issues and working to remove systematic threats and reducing health inequalities is essential for strengthening health care systems and striving for global health equity.

Art and humanities in medical education

According to Heath (2016), "evidence-based medicine tempts us to try to describe people in terms of data from biomedical science: these are not and will never be, enough. Such evidence is essential but always insufficient for the care of patients. It gives us an alphabet but as clinicians, we remain unsure of the language." This begs the question, "to what extent does a physician need expertise in understanding medicine versus having apt social skills when caring for a patient?" Pellegrino (1984) believed that medicine requires both objectivity and compassion, and "it sits between the sciences and the humanities being exclusively neither one nor the other but having some of the qualities of both." Methods in the arts and humanities are increasingly being explored in medical education to develop core elements for physicians such as forming deeper connections with patients, maintaining joy and meaning in medicine, and developing empathy and resilience (Mann, 2017). Medical humanities (MH) can be defined as an interdisciplinary field that adapts the arts into education and training endeavors in the pursuit of achieving an educational goal or competency. These methods support the development of essential skills such as communication, professionalism, self-awareness, and reflective practices (Mann, 2017; Wald et al., 2015). It has been suggested that the inclusion of MH and its various methods into medical education can increase quality of care for patients and optimize wellbeing of medical providers (Wald et al., 2018). A meta-analysis of twenty-six systematic reviews supports this claim with findings that show interactive techniques are the most effective at simultaneously changing physician care and patient outcomes (Bloom, 2005). Bloom (2005) also

showed that didactic presentations and distributing printed information has little or no beneficial effect in changing physician practice. It is for this reason that this study advocates for the improvement of medical education to increase Indigenous health outcomes, and the MH and the arts to be explored as a method.

CHAPTER THREE: STUDY METHODS

Introduction

The purpose of this study was to explore to what extent current medical education at the Cumming School of Medicine at the University of Calgary focuses on Indigenous health, and to develop and suggest a framework incorporate Indigenous health into medical education.

Recruitment

Participants at the University of Calgary and Cumming School of Medicine were first recruited by newsletter postings which invited them to reach out to the interviewer. Newsletter entries were submitted to 1) The Pulse, a monthly newsletter received by Program Directors, with information about the study, inclusion criteria of roles in medical education or curricular development and the interviewer's contact information; and 2) The PG Post, a monthly newsletter received by medical residents, with information about the study and the interviewer's contact information. A token of appreciation was offered to each participant in the form of a $15 gift card. The first three interviews were conducted after participants replied to The Pulse. After the first three interviews, IRB was amended to included snowball sampling so that suggestions from participants of other participants who could contribute valuable insights to the study could be pursued. The participants could now reach out to others using the project flyer and invitation letter via email allowing new participants to contact the interviewer if they were interested in participating. As data collection progressed, this study employed iterative purposive sampling by seeking experts in medical education, simulation, or curriculum development at the University of Calgary.

No medical residents responded to The PG Pulse and it was decided to no longer seek this population. The original intent was to gain insight into what medical residents were taught

about Indigenous health, but it was decided that program directors and others who were involved with curriculum would meet this objective without needing to pursue medical residents.

All participants provided written consent for interviews to be recorded. Verbal informed consent to record was again obtained prior to the start of each interview. Interviews were digitally recorded and transcribed verbatim by a certified third party. Two interview guides were created for 1. Program Directors and Curricular Developers and 2. Simulation and medical education experts. The Interview guide used open-ended questions to explore current medical education and training and its focus on Indigenous health, the potential methods to be used and recommendations for how to implement curricular changes.

Research design and procedures

Between December 2019 and February 2020, eleven in-depth, approximately 60-minute interviews were conducted. All interviews were conducted in English by the author. The overarching goal of the interviews used a cross-sectional design to explore Indigenous health content in current medical education at the U of C and to understand the processes of how curriculum and medical training is implemented and updated to inform recommendations. Each participant had a position at the university or was affiliated with CSM. I interviewed program directors and those in position to influence curricular changes were asked to provide their perspectives on who and what roles to engage in order to make education and training improvements happen. Simulation experts and education researchers were interviewed to elicit their insights on the theoretical foundations of medical education and appropriate approaches to make changes that are effective through proper planning, implementation and evaluation strategies.

Plans for data analysis

A provisional codebook was developed with deductive codes, definitions drawing on the interview guide. Inductive codes were added subsequently. The accuracy of each transcription was verified against its respective recording by the author, and then each segment of data was coded. Notes taken during and following each interview were not coded but were saved as reference data. The interviews were coded using MAXQDA software. Comparative and descriptive data analysis was conducted across descriptive variables found in Table 1. Detailed descriptions and titles are avoided to ensure confidentiality.

Variable	Description Options
Gender	Male, Female
Indigeneity	Indigenous, non-Indigenous
Title	Physician, Program Director, Adviser, Educator
Specialty/expertise	Family medicine, Emergency medicine, Rheumatology, Cultural competency, Simulation, Population health, Psychiatry, Oncology, Geriatric medicine, Critical care medicine, Anesthesiology
Role in curriculum development	Yes, No
Continuously works in Indigenous communities	Yes, No
Works in which level of medical education	UME, PGME, CME
Other positions	Royal College, College of Family Physicians

Table 1: Interview Participant Variables

Codes were used to inform data collection as they were developed iteratively. Codes began to fit together in categories that helped form the narrative to address the research objectives. Memoing is a method of taking note of ideas and important developments as data is analyzed. Memos served as breadcrumbs throughout the data that highlighted connections in the data that would later inform the development of themes.

Ethical considerations

This project was declared exempt from human subjects research by Emory IRB as it consisted of a needs assessment at the request of the host organization.

For research undertaken by University of Calgary faculty, staff or students, or using University of Calgary resources, approval was necessary from the Principal Investigator's Department Head. Signed approval was obtained from the department head of Family Medicine at the University of Calgary and the Director of Advocacy and Accountability within post-graduate medical education at the Cumming School of Medicine. This study was approved by the University of Calgary Conjoint Health Research Ethics Board (REB19-1481) under title: Anti-racism education for improving Indigenous health outcomes.

Limitations and delimitations

Limitations existed in this study. Snowball sampling could have introduced bias as previous interview participants were more likely to recommend someone who was a proponent of Indigenous health education. This method allowed for rapid and efficient recruitment of participants with expertise. This study was conducted specifically at the U of C and generalizability is not possible to other medical programs that may have different environments to consider. This study did not involve Indigenous participants for the purpose of hearing personal stories or experiences related to healthcare or systemic racism. The literature review provided evidence and documentation that already exists for this purpose. This limits the perspective of necessary objectives to include in medical education. One last limitation of this study is that of data saturation. Even as this thesis is being written Indigenous health initiatives are developing and changing. Reaching saturation may be futile as time passes and no minimum level of Indigenous education exists.

CHAPTER FOUR: FINDINGS

Context and setting

This subject of this study was Cumming School of Medicine at the University of Calgary in Alberta, Canada. Alberta is organized into five geographic zones. Calgary is situated within the Calgary zone and serves 1.5 million people. CSM currently has 2,550 students and 511 full time faculty. This study involved eleven participants who knew and understood the medical education curriculum at CSM. Ten participants are employed at the U of C or CSM as a program director, educator, researcher or consultant. One study participant is a senior advisor for Alberta Health Services. Nine participants were female and two were male. Six participants mentioned steadily working in Indigenous communities around Calgary, and one participant self-identified as Indigenous. Participants held positions in UME, PGME, CME and sometimes with varying degrees in multiple levels of education.

Current medical education

Indigenous health content is sparse throughout undergraduate medical education (UME) and post-graduate medical education (PGME) at the University of Calgary (U of C). The UME curriculum is developed and implemented by the Cumming School of Medicine (CSM). PGME is also under CSM, but specific education requirements are dictated by one of the 16 specialty programs a resident could be in for 2-5 years (family, emergency, anesthesiology, internal, etc), in addition to a resident's corresponding governing body (the College of Family Physicians of Canada or the Royal College of Physicians and Surgeons of Canada). In the post-graduate phase, resident physicians are also employees of Alberta Health Services (AHS), along with all fully licensed physicians, and are subject to AHS education requirements. Collectively, the interviews conducted for this study provided insight into where and how Indigenous health topics are

currently taught in medical education. The focus of this research was PGME, but other levels of education were mentioned and are included here to provide more context.

Undergraduate medical education

UME has a Global Health stream for up to 150 medical students. A medical educator explained that in 2019, an initiative was piloted for first-year students in this stream that included a half-day lecture on Indigenous health where the history of forced sterilization among Indigenous women in Canada is a main topic area. This course is taught by a small team of experts, including a Blackfoot family physician who draws focus to population health questions. The Well Physician Course is a separate longitudinal course in pre-clerkship (years 1 and 2 of medical school) where there is a day of teaching around implicit bias. The course arose from concerns about unprofessional behavior exhibited by some medical students previously that was potentially tied to professional burnout. It was explained that this course is undergoing revision and may serve as an opportunity to incorporate Indigenous health education in the future. CSM's website lists its top 10 graduation education objectives (UME Curriculum Committee, 2020) and the competencies to achieve these objectives. There is no mention of Indigenous health, but listed under the competency for being a health advocate is: "ability to identify determinants of health and barriers to health care access, especially for vulnerable/marginalized populations." During an interview with an Associate Dean, it was said that there are distinctions between vulnerable populations and Indigenous populations. A Program Director explained further that there can be some crossover between the two, but some competencies that exist around vulnerable, underserved populations do not address Indigenous health necessarily.

Post-graduate medical education

Education for post-graduate residents streams from two sources: the PGME specialty program that any resident is in and AHS provincial requirements. Each makes an attempt at inclusion of Indigenous health topics through didactic and experiential learnig as well as simulation methods, but there is no standardization across specialty areas, and Indigneous health education is irregular and varied across medical specialty programs. After all interviews were conducted, it was evident that medical residents across medical specialties could have completely different levels of exposure to Indigenous health, very little of it being mandatory if the resident chose to do none of it. Table 2 is a non-exhaustive list of options where a resident might be exposed to Indigenous health topics.

Method of exposure	Specialty program (if mentioned in interview)
Biannual conference that includes Indigenous health topics	Family Medicine
Rural rotation	Family Medicine
Experiential day in a town that serves a large Indigenous population	Family Medicine
One day session on Indigenous mental health	Psychology
Education for Equity	Phsychology and Rheumatology
Indigenous standardized patients	Multiple
Calgary Cambridge guide for communication	Multiple
Grand rounds	Multiple
Ad hoc simulations	Multiple
Social determinants of health	Multiple
Seminars	Multiple
Alberta Health Services online modules*	All

Table 2: Current methods for Indigenous health exposure
*Mandatory for all AHS employees

All AHS employees, including all medical residents, are required to complete a set of online modules on Indigenous health each year. A PGME Program Director stated, “the modules are superficial and not particularly high quality.” Other physician educators and a different Program Director who consistently work in Indigenous communities agreed with this opinion.

Several of these interviewed physicians expressed belief that the modules are not highly valued by most other physicians, serving simply as a checkbox that must be completed by a deadline each year. One physician who expressed her ongoing interest in Indigenous health education admitted that even she was unenthusiastic about and reluctant to do the modules. Interview participants who do not consistently work in Indigenous communities thought highly of the online modules and felt that they "just highlighted what I didn't know,"as one physician added who is a former Program Director with a formal background in education administration. Previously consisting of one video and quiz, several interview participants mentioned that the online module have recently been updated and expanded to include more modules.

After asking an AHS Senior Advisor in Cultural Competency about the quality of the material, it was explained that the modules must cater to all AHS employees, including custodians, physicians, nurses, administrators, etc.—a collective network of over 100,000 employees. "Participants can click through a video", the AHS advisor explained, "and take the multiple-choice quiz at the end over and over until they get all the answers right and complete everything in a third of the time." This participant also explained that AHS currently has no system of evaluation in place for the e-learning modules.

Where the gaps are in current medical education

No formal focus on Indigenous health

A current Program Director explained that Indigenous health education is partly about learning the facts of Indigenous history in Canada, but also a matter of gaining a deeper understanding and perspective that Indigeneity itself is a determinant of health. He goes on to say that a medical provider's better understanding of Indigeneity and its role in health will create the

opportunity for medical education to develop specific skills around advocacy for the provider to advocate for the patient and for himself.

Every interview participant who was affiliated with CSM stated that there were no clear competencies for Indigenous health in current medical education. A Senior Advisor for the Indigenous Health Program explained that content and competencies in medical education have yet to include Indigenous perspectives.

Sociocultural focus instead of biological focus

Every interview participant was asked what medical education were needs in the area of Indigenous health. While each answer varied, they all incorporated the need to learn about the history of colonization and intergenerational trauma. One question on the interview guide was designed to explore where the knowledge needs were perceived to lie: biological (i.e. anatomy, physiology) or socio-cultural (i.e. SDOH, environment). Participants felt similarly about biological aspects being more universal and the need being more related to socio-cultural aspects. One physician, highlighting the need for more focus on socio-cultural aspects stated, "a human body is a human body whether you are from Africa, Central America or Canada." An interview participant with a PhD in Medical Education explained that the focus of medicine is shifting and there is much more focus on the social context than previously. Another physician who is a former Associate Dean expressed how important it was for her to learn about colonization and its part in Canadian history—how recently, for instance, coerced sterilization has taken place, realizing that several generations of Indigenous people have parents or grandparents who attended residential schools, and the ongoing stress passed down through generations.

Where are the challenges

At the outset of this study, simulation was the target teaching method to be explored for Indigenous health training in medical education. During interviews, other methods were described as appropriate and possible options for Indigenous health education and training. Collectively, interview participants mentioned online modules, didactic methods, simulation methods, and experiential exposure through rotations and volunteer opportunities. Non-medical interview participants with backgrounds in medical education and curriculum development explained that many methods could be used to teach learners, but that the learning objective must be developed and adapted to the most appropriate teaching method. Another interview participant stated, "the TRC Calls to Action are poignant and a great compass, but it can leave organizations scratching their heads at how to actually enact this and put these changes into motion." This section will present what interview participants expressed as possible challenges that could inhibit the methods used for improving medical education and training around Indigenous health.

Hierarchy

Interview participants explained the ways in which hierarchy is deeply entrenched in the culture of healthcare. According to interviews with physicians, the hierarchical nature of medicine is most apparent during the PGME phase. A former program director explained that medical residents are assumed to have power from a patient or community member's perspective since they have the authority to sign prescriptions and write orders, but within the healthcare system they hold very little power in relation to staff physicians. Residents rely on performance evaluations and supportive reference letters from attending physicians they work with in order to progress through their training and acquire employment after residency. Many interview

participants explained how this could put residents in a challenging position when it comes to advocating on behalf of themselves or their Indigenous patients due to an extreme power differential. Medical educators mentioned that residents might feel better protected if there was an anonymous reporting system for witnessed or experienced events of racism.

Is there a specific medical specialty to prioritize?

A physician and PGME Program Director explained that it would be difficult to try to get all learners an equitable exposure to Indigenous health education and training. He went on to explain how different medical specialties spend different amounts of time with patients. Family physicians, he went on to explain, might have an advantage since they spend much more time with a patient over time. Other specialties will get less time with patients, meaning they have less time to build rapport or establish trust and a relationship. Consequently, it was pointed out, medical providers in these specialties need to be better prepared. Other interview participants said all medical specialties are in equal need of Indigenous health education and training, but after deeper questioning many of them said that family medicine was the gateway to Canada's healthcare system, so it may be most appropriate to prioritize a focus to that specialty. It was mentioned by other physicians that family and emergency medicine physicians have the most day-to-day interactions with patients, and these two specialties, if priorities had to be set, would have the highest impact on Indigenous health.

Which level of education to target

Many interview participants pointed out the fact that fully licensed physicians who have been practicing for many years are assumed to have all the necessary knowledge and skills required. One medical educator explained that while older physicians do have experience

through decades of interactions with Indigenous patients, there is a gap in foundational knowledge of Indigenous health issues that they were not exposed to when they were in PGME. It was further explained by an Associate Dean that a barrier would be older physicians not understanding the TRC recommendations and why they are needed because many of them may have never worked in an Indigenous community. She asserted, "If [older attending physicians] are dismissing it, then it would be very difficult for a resident to not do the same." This participant went on to explain that being an older doctor usually comes with the benefit of having more experience and knowledge, but in the case of Indigenous health, being older does not translate into more knowledge and skills unless this person had a unique interest and sought it out. A psychiatrist and educator described the changing of times where "younger learners bring their own lived experiences and are often more socially conscious and have more cultural awareness than those who were trained decades ago." Many interview participants agreed that unintentional or unrecognized bias may be a challenge with a top-down approach aimed at faculty development through CME. In an interview with a physician who has been a practicing for more than 30 years and has only become more knowledgeable of Indigenous history in recent years said, "Non-Indigenous doctors might fear getting it wrong and as a result avoid this stuff altogether". Some may also feel helpless and freeze at the thought of how they as an individual can change this.

If you add something, you must take away something

It was said by multiple participants in almost exactly the same way: "If you add something, you must take away something." A physician who works with UME and PGME explained, "In medical school the emphasis is on the clinical side, so there is pushback when this content is threatened, because the focus at this stage is so narrow on how the heart beats and how

to control hypertension." She went on to explain that medical education in PGME has a broader focus, but the challenge is similar. An interview participant explained that in an era that prioritizes mental well-being so highly, it can be a challenge for medical providers to add one more thing on the list of things to dedicate energy to. "This sparse energy is a reason updates and changes are only added every couple of years when someone has the time to really push for it," she explained further.

Challenges for Alberta Health Services:

A senior adviser for AHS's Indigenous Health Program shared his view that Indigenous health education should happen earlier in medical school or post-secondary so that when they enter a larger organization like AHS they do not have to retrain or be educated on something they already know. There are over 7,700 physicians in the AHS system, and physicians in Alberta have the highest salaries in Canada. He explained that if AHS required just a few additional hours of Indigenous health training per doctor per year, this would be millions of dollars spent on education and away from patient care. He finally noted that it would be much less expensive to frontload this education and ensure physicians receive adequate Indigenous health education and training while in medical school and residency.

Where are the supports

This section will present what interview participants expressed as supports for improving medical education and training to have a focus on Indigenous health.

Interest around U of C:

Within many specialty programs in medical education there are initiatives that introduce Indigenous health or at least attempt to incorporate an Indigenous lens into curriculum. For

example, there is development of videos and simulation to promote discussion and dialogue around antiracism in the Psychiatry program. There are discussions to do the same in the Family medicine program. Throughout interviews, individuals who had a role in teaching knew of others who had methods for introducing Indigenous health into a course or who would invite residents to work in Indigenous communities during a rotation. There were many mentions of general interest at U of C to produce a video, develop a simulation, or create a course to cover Indigenous topics. Several physicians explained the Education for Equity (E4E) Framework that was developed by U of C faculty to address social elements for Indigenous patients with type 2 diabetes and how it is being adapted to Rheumatology. There is evidence from each interview that the interest exists, and efforts are being made to incorporate Indigenous health into medical education but competing priorities and various other reasons delay or inhibit efforts from becoming incorporated long-term.

Support in key positions and roles at U of C:

Those who actively support and lead initiatives around Indigenous health were described as "champions" by interview participants. Many explained that champions are oftentimes experts on subject matter who can facilitate trainings or learning sessions on Indigenous health topics. Champions were described as important figures to rely on, especially ones in positions of power to influence change. At the U of C, many champions were identified as current Program Directors, Vice Chairs, Associate Deans, Administrators, and other roles and positions. Several physicians described burnout among champions as a common worry as they are often intensely tapped into for workshops, lectures, etc. Three Program Directors explained the link between Champions and allies as a crucial one that helps spread the work and reduce the likelihood of burnout.

One Program Director mentioned that a colleague at CSM who is on a board with the Royal College of Physicians and Surgeons. She went on to explain that individuals at the U of C or CSM who have positions or appointments with a medical governing body should be seen as a valuable resource that can be effectively leveraged.

Support from AHS:

One way AHS extends support to Indigenous health education is through the Indigenous Health Program (IHP). A senior adviser from IHP explained that their focus on and support of reconcili-*action* with partners—assisting communities and organizations in their efforts to develop an action plan. Doctors and professionals at Peter Lougheed Emergency Department reached out to their Simulation Department, and the Indigenous Health Program at AHS are currently supporting and working with them to develop simulations with the purpose of improving quality of care for Indigenous patients. This may look different depending on the location, zone and needs of an organization, but AHS and the IHP can serve as a huge support. Admittedly, AHS may not always have the time, fiscal dollars, or fiscal responsibility since their scope is so large, but this leaves opportunity for a phased approach over time.

TRC as guideline for Indigenous health

When asked about the TRC Calls to Action, every interview participant agreed that institutions and organizations should strive to incorporate the TRC into medical education. One former Program Director and champion for Indigenous health stated that the calls to action should not merely be suggestions, but that they should be made mandatory, and all institutions should have objectives and goals around Indigenous health. There was not consensus on how to approach Indigenous health education and training, but one interview participant summed it up

nicely by acknowledging that efforts can look very differently across provinces and even across programs within one medical school: “When it comes to these specialized and niche areas, there must be interprofessional collaboration between content, education experts and medical providers to have evidence-based teaching that is appropriately adapted to medicine and that achieves measurable competencies.”

Interview participants who are educators or have knowledge of CSM curriculum believe that efforts for inclusion of Indigenous health are not too often met with resistance or pushback and that its importance is valued. In fact, they have found that senior leaders and faculty are very open, interested and willing to introduce Indigenous health into medical education. An attending physician and educator explained that some are even embarrassed when they are convinced of the need for Indigenous health and the fact that it does not already exist in medical education. The reason Indigenous health education exists only in isolation and is sparse is because of already packed curricula that make it difficult to find the space to fit in more and challenges with the coordination of efforts even within the same department. This has led some to “focus on some low-hanging fruit just to get some momentum with things moving,” as one non-physician program director explained. One example of a low-hanging fruit exists in the Community Health Science program where all new graduate students were required to take a one-week, mandatory course. In this course was a session that covered an historical overview of colonization and social determinants of health. It was pointed out by the participant that one could argue that a two-hour session is not enough exposure to become an expert on the topic. The participant agreed but added that it was at least a good place to start. After a few years of the one-week course, interest grew among learners and faculty, and two instructors took the lead and designed and implemented a full spring course that was introduced in 2019.

Support within governing bodies

An interview participant explained the importance of the Royal College supporting Indigenous health initiative. The Royal College of Physicians and Surgeons of Canada (RCPSC) is the association that sets the national standards for medical education and continuing professional development for all medical specialties across Canada except for family medicine. In 2019, the RCPSC published the Indigenous Health Primer with the purpose of providing key approaches, ideas and background knowledge for health care providers, learners and educators in caring for Indigenous Peoples (The Indigenous Health Writing Group of the Royal College, 2019). Mandates and important documents developed by governing bodies indicates a certain level of prioritization and push for education institutions to follow.

Simulation

One of the research objectives of this study was to identify what role simulation could serve for Indigenous health in medical education. Sometimes simulation is used for biomedical purposes, such as high-fidelity mannequins, and other times simulation consists of lower fidelity methods, such as standardized patient interactions or role-playing. Throughout interviews, participants described various uses and objectives for simulation for Indigenous health, including safety, raising cultural awareness, challenging personal biases, building the capacity to anticipate various scenarios, communicating with hierarchically neutral language, and being committed to the community one serves by speaking up against anti-Indigenous attitudes, speech and behavior.

Used for safety

Each interview participant was asked how simulation methods could serve as a tool for Indigenous health. Multiple physicians said that simulation should be used by learners to practice

skills prior to patient engagement to reduce negative impacts on the patients and communities in which this is meant to serve. It was explained that simulation allows for learner safety, too, because these can be intimidating skills to learn when they are not yet experts in the medical piece, yet there is also an additional cultural layer to consider. One physician who is also a program director said his concern is about being "mindful and respectful of the population we are talking about and what it is that the patient can sustain as well as what the practitioner is capable of providing, otherwise burnout can result both from the patient and provider."

Used to better anticipate scenarios

One physician with no role medical education explained that one of the objectives of simulation could be to increase cultural awareness and decrease bias. An example scenario that was given was understanding why an Indigenous patient may not have shown up for their appointment the past two times. The assumption of a doctor may be that the patient is uninterested in coming to their appointment. Instead, there may be barriers for the patient, such as transportation or only having phone data to send text messages and not minutes for a phone call. The interview participant shared a personal experience of speaking with one of her female patients whose two siblings had died of opioid overdose. After some encouragement, the patient reluctantly told her that her brother did not die from opioid overuse, but that it was an evil spirit. The participants described feeling stuck and not knowing what to say. If this were a simulation, the participant explained, then she would have been able to think through the situation better and be more prepared for something like this in the future. Several physicians did not specifically say that simulated cases could be used to increase awareness, but that it could build the capacity to anticipate a scenario before a learner truly encounters it.

Challenging bias and stereotypes

An Indigenous, non-physician participant who is an adviser for AHS highlighted the importance of realizing how the Indigenous person is represented in simulation. He asked, “Is the patient presented as a middle-class professional or as an unkempt, intoxicated person?” It was mentioned to also consider language at the same time since Indigenous names could be a possible trigger for provider bias. This participant urged for stereotypes and personal bias to be challenged by representing the full spectrum of Indigeneity in simulation. It was further explained that this must include familial support of the patient too. He explained that family members and loved ones who are present to support the patient will also reside somewhere on the broad spectrums of stereotypes, health and wellbeing, and with all these things to consider, a medical provider must decide how to best proceed to provide appropriate care for patients and family members.

Inappropriate use of simulation

Gap in educator knowledge

In an interview with a lead research scientist in simulation, it was explained that it is often wrongly assumed that a preceptor has the base knowledge to conduct a simulation for learners. A physician may have the clinical expertise required to develop a simulation, the participant explained, but for softer skills like communication and advocacy for Indigenous health, or simulation evaluation, co-collaboration should be considered with experts in these areas. The participant went on to explain that preceptors will sometimes have individuals from Community Health Sciences didactically teach Indigenous health topics to learners but then will not continue their involvement during the applied simulation. She suggested that experts in population health and Indigenous health first teach faculty the content to fill any gaps in their knowledge, and then they co-collaborate to develop content for medical learners. This way,

faculty will be in better position to co-teach the material instead of depending fully on and then when simulation is used afterwards learners are in a better position to achieve the learning objectives. She went to say that if this faculty development is not possible, then a content expert in population or Indigenous health should be a part of the debrief and you have two content experts, both the clinician and someone who specializes in Indigenous health.

Gap in learner knowledge

It was explained by the simulation expert that preceptors will sometimes simulate cases or events at inappropriate times for learners, without considering other avenues that may be used or knowing when other methods are necessary prior to simulation to ensure highest yield. Another participant with a professional background in medical education explained the appropriate use of simulation in terms of Bloom's taxonomy. A learner must have base knowledge, she explained, before simulation is appropriate to use. She went on to say that the knowledge and the application pieces are often separated in medical education and that there should be more continuity to the development of education material. You should be able to learn where the potential gaps are from the debrief, and this should inform and feed into the development of future teaching material.

The Debrief

"When used correctly, simulation can be highly effective", a simulation expert explained in an interview, "and the key element of simulation is the debrief. That's where all the pearls are, and the knowledge happens." The debrief ensures a learner understand the objective of the simulation, and it allows time to address the emotions and content knowledge learned in the simulation. A critical care physician explained that through the debrief a variety of guiding

questions allow for development and self-exploration around bias and ways of practicing. People are not always aware of the impact of their actions, words or how they come across to others. It is critical, she explained, that facilitators of a debrief are very well trained to be able to pick up on these things and integrate them into a constructive debrief to contribute to behavior change. It was said that video review is sometimes used during simulation to allow a learner to not only learn from recall but to see how they interacted with a patient and develop more insight and self-awareness.

Current medical education at CSM has only sporadic examples of Indigenous health education at the UME or PGME levels. The need for an equitable focus on Indigenous health education is great and is highlighted by mandates such as the TRC Report and the Indigenous Health Primer. Support for these initiatives exists through many avenues at the U of C including individuals in leadership roles and positions at the university, the RCPSC and AHS. There are many challenges leaders and champions will have to overcome to ensure an equitable focus on Indigenous health in medical education. Methods such as simulation can be effective in teaching Indigenous health, but it must be done correctly, as interview participants explained. Each of these challenges will be addressed in the next chapter and recommendation will be made for how they can be overcome.

CHAPTER FIVE: DISCUSSION

Summary of results

The findings of this study, presented in the previous chapter, detailed participants' descriptions of current medical education at CSM and the gaps within, identified where the challenges and supports exist for changes, and proposed teaching methods to consider using. This chapter will discuss some necessary steps for the U of C and CSM to take to address systemic racism within the healthcare system and improve quality of care and health outcomes for Indigenous people who access mainstream healthcare services. First, university leaders should understand that this is a need and be willing to make the necessary change. Next, objectives and competencies specific to Indigenous health should be made and decided where to incorporate into curriculum, taking into account the hierarchy of medicine and the differences in individual levels of knowledge. Finally, for evidence-based teaching and measurable outcomes to occur, the importance of deliberate and sustained collaboration between content experts, education experts and medical experts should not be undervalued.

The need should be understood by leadership

First, to ensure longevity of progress, it is important for all involved parties—learners at all levels of medical education, course chairs, faculty and program directors who are involved in implementation—to buy in and understand the need for medical education to purposefully have an equitable focus on Indigenous health. This may happen in steps where learners may not have a choice at first if this education is mandatory. It may take time, but it is important that those in leadership and supporting roles build a relationship that values and prioritizes these efforts. It was mentioned time and again in interviews that efforts were initiated and would fizzle out over time. Institutional-level leadership and infrastructure would allow these initiatives and efforts to

sustain. Accountability from Indigenous faculty, teaching mandates, and champions in the field would ensure accountability of moving forward in an ethical way.

Learning objectives and competencies

Second, champions and leadership around CSM should plan and prioritize learning objectives and competencies to achieve Indigenous health equity. It has been contended that the healthcare setting is not just a clinical space but also a social space in which unequal power relations along the intersecting axes of race and class are negotiated (Tang et al, 2015). These two spaces should have equitable attention, and training and education should be a focus for both. As the TRC Report is not merely suggestions to consider, healthcare professionals should learn new skills to better serve Indigenous patients to close disparities between Indigenous and non-Indigenous Canadians. Research evidence underscores the need for change in systemic attitudes and perceptions of clinicians who work in the Indigenous context. The history of colonization in Canada and its legacy of effects, cultural competency, cultural humility and advocacy are all topics and skills to consider including that have been incorporated elsewhere (Brett-MacLean et al., 2012; Singh et al., 2017; Wald et al., 2018).

Cultural competence is a learned process that one can practice in order to better understand a patient's values and perspective. For a medical provider to become more culturally competent, they must first become self-aware, discovering their own biases and stereotypes. Cultural competence is recognized as an important quality for healthcare providers working with diverse populations. There is no one correct way to teach cultural competence, although frameworks for teaching and learning related skills have been suggested (O'Connor, 1996). Culture is every non-biological aspect that is inherited from one generation to the next. It offers a repertoire of values and perspectives of individuals belonging to a particular culture. Important

aspects of cultural competency are the realization that diversity exists *within* culture as much as it does *across* culture, and that culture is not identical with race or ethnicity. There should be a balance between standardized and patient-centered care. As cultural competency increases for a medical provider, each patient encounter will be easier and more natural to evaluate the two sets of information and knowledge: their own professional/technical knowledge and ideas about treatment, and the patient's own experiential knowledge and ways of being. Non-medical specialists—social scientists, members of Indigenous cultures, traditional healers, elders, etc.—will also become important potential consultants as this skill increases.

Cultural humility is a lifelong process of self-reflection and self-critique that overtly addresses power inequities (Miller, 2009; Tervalon & Murray-García, 1998). Compared to cultural competency, there is no level of mastery that can be achieved in cultural humility. Like empathy, cultural humility is not a skill that one can learn in one session or ultimately achieve. Together, cultural competency, cultural humility and empathy are competencies that if aimed for by all medical professionals, more equitable healthcare would be provided to Indigenous peoples. A program director explained in an interview, "There are a lot of ways to help people understand what the issues are, but it's not enough just knowing what the issues are without giving people the tools to advocate and know how to upset the system to the advantage of patients." The University of Toronto offers the Indigenous Health Enhanced Skills Program (University of Toronto, 2017) that highlights the ability to advocate for and with Indigenous peoples. Learning objectives and competencies for Indigenous health education should strive to improve the knowledge, skills and attitudes of medical providers with respect to health status, historical determinants of health and concepts of ways of knowing and being specific to Indigenous populations.

Lastly, the aforementioned objectives and competencies should be noted as not the ultimate measures of health equity, but as initial considerations at the interpersonal level. Additional levels to consider are the institutional and structural levels. Examples of these include policies, admission and retention of Indigenous students, recruitment and development of Indigenous staff and faculty, and relationship building between institutions and Indigenous communities. These approaches have been outlined by The Association of Faculties of Medicine of Canada's Joint Commitment to Action on Indigenous Health (The Association of Faculties of Medicine of Canada, 2019). As culture and Indigenous identity can be as various as culture itself, approaches for improving Indigenous health and quality of care should be approached from different angles, at the individual levels and structural levels. Metzl and Hansen (2014) challenge and propose changes for medical education to infuse clinical training with a structural focus to champion for the interests of individuals, communities and infrastructures to which medicine owes its mission.

"If you add something, you have to take away something"

One participant described how medical education is a system of competing demands—time, money, and human resources—that has been designed in a way that resists drastic change. Each participant was asked about the process for curricular changes in medical education. In response, multiple participants said in almost exactly the same words: "If you add something, you must take away something." Medical education does not have to pause and be completely overhauled to address disparities in Indigenous health. In fact, Indigenous health can be incorporated in the current curriculum. For example, the Calgary Cambridge Model of patient communication is a focus during medical education that teaches learners appropriate skills to communicate with a patient. This existing model could be adapted to incorporate an Indigenous health focus. In

another example, a physician and professor explained that knowledge has been developed more based on the middle aged, white male standardized patient. Therefore, purposefully incorporating more Indigenous representation in standardized patients could be an initial step to reducing stigma and stereotyping. Another example of incorporating an Indigenous lens to a module that already exists would be when learners simulate how to break bad news. This would include breaking bad news to both a patient and a patient's family member. In both scenarios a medical provider should be equipped with knowledge and skills to appropriately respond to a scenario similar to one mentioned in Chapter 4, where a medical provider was told by a patient that an evil spirit caused her brother's death, and not an opioid overdose as she was being told. There is no correct response to a remark like this one, but a medical provider who is more culturally competent would be able to communicate more empathetically with this patient's loved one.

Teaching methods

Didactic methods, media and online learning, rural rotations, simulation and role playing were among the many methods mentioned during interviews for Indigenous health training. At the outset of this research, simulation methods were a specific area of interest to explore. It was quickly made apparent that simulation has a time and a place in education. Indigenous health education and training for medical providers would be more effective if mapped onto the model of Bloom's Taxonomy and making sure learners are properly moving up from one level to the next. This is a crucial point in knowledge translation where without having a safe space to practice and learn from mistakes it would be much more difficult, if not impossible, to have a deeper understanding of Indigenous point of view. Only after seeing different outcomes in simulation and analyzing them more deeply might a provider understand, support and provide culturally competent medical advice to the Indigenous patient. A learner should be at a certain

level of learning before simulation is appropriate, and the simulation should include elements that align with the objective, and most importantly, the debrief should be conducted by a facilitator trained on the subject matter and who can guide potentially harmful conversation into constructive and thought-provoking dialogue. It was learned from interview participants that preceptors and educators create their own simulations and that there are thousands in the PGME simulation bank. It might be useful for CSM to create a fresh, more standardized bank of simulations that address specific objectives for Indigenous health. The importance of collaboration between experts is crucial for this.

Medical humanities (MH) is a broad area of pedagogical approaches that can be used for many learning objectives (Shapiro, 2012). The nature of MH is interdisciplinary and interprofessional as methods are not used in traditional medical education programs. Mediums for MH may include reading poetry, short stories, reflective writings, video, theatre, drawing and games. MH is used around the world in medical education to teach end-of-life care through readings on stage (Lorenz et al., 2004), communication through role-play (Nestel & Tierney, 2007), compassion for those suffering through poetry (Coulehan, 2009), cultural competency through narrative (Arjmand, 2012), professionalism through forum theatre (Brett-MacLean et al., 2012), and empathy and how to be a change agent through Theatre of the Oppressed (Love, 2012; Reilly et al., 2012). The latter two examples—forum theatre and Theater of the Oppressed—have alignments to simulation in ways that conventional medical simulation can be expanded to explore outcomes such as disruption normative behavior and questioning personal biases. If any, or all, of these methods were implemented in collaboration with education design experts to ensure measurable objectives, population health experts to facilitate Indigenous health content and medical experts to ensure proper medical adaptation, these methods could be popular

and effective at teaching softer skills to medical providers who go on to practice culturally sensitive medicine.

Culture of medicine

The hierarchy between resident physicians and attending physicians—and again between newer and senior attending physicians—is another factor to consider in the clinical setting. Alleviating challenges related to the hierarchy of medicine will be an arduous battle because, as a physician active in Indigenous communities explained, "Attending physicians often become just another brick in the wall that perpetuate the system and culture of medicine." Attending physicians are often preceptors and instructors to resident physicians and may feel they have earned their position at the top of the pecking order. This hierarchy would inhibit knowledge transfer up if Indigenous education were aimed solely at PGME, as attending physicians may be closed off to new knowledge coming from those below them. Instead, if education and training were aimed at senior attending physicians and preceptors through Continuing Medical Education (CME) and disseminated down, knowledge and skills may have a better chance of being received at lower levels as the hierarchy is already in place for knowledge to flow in this direction. Figure 1 diagrams these two scenarios.

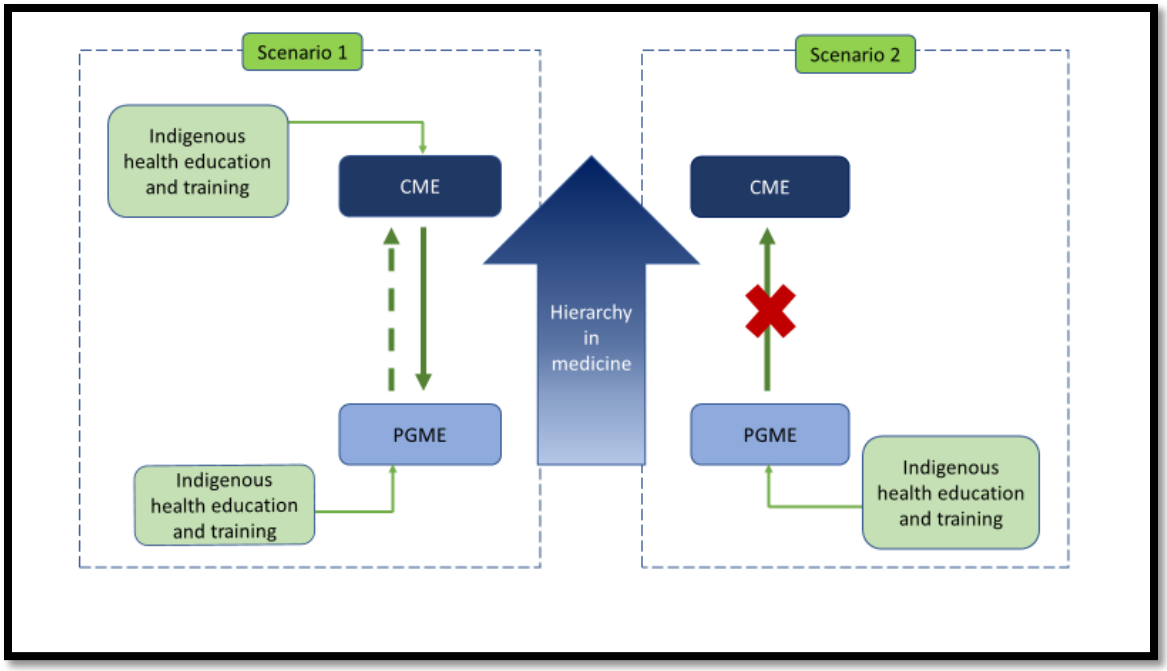

Figure 1: The effect of hierarchy on the flow of Indigenous health education between PGME and CME levels

A top-down approach that focuses on faculty development will be necessary to ensure equitable knowledge gain. Teaching methods should account for leaders as learners and keep the two education pathways separate to ensure the vulnerabilities of preceptors are not exposed to their trainees. If education is aimed at faculty and behavior change occurs, then it is likely to trickle down to resident physicians through their preceptorship. Some physicians will not be on board in the beginning, and neither will some medical specialty programs, but as this movement gains traction over the years and decades, those slower to change will eventually be in the minority. The speed this happens would also depend on whether Indigenous health education and training is voluntary or mandatory. There was not consensus among interview participants on this point. Some said it should remain voluntary because imperatives tend to stir resistance. Other pondered if it could be mandated by the medical governing bodies. The middle ground could be incorporating Indigenous health where appropriate to ensure a minimum amount of training and the have additional workshops or engagements for those interested. There could also

be incentive for doing these sorts of things (certificates or favor when applying for attending positions). The medical system has previously shown the capacity and willingness to expand and incorporate social aspects that may impact a population's health, such as when there were shifts to better support women's health or transgender health. Indigenous health education and training should still be included in PGME. Adding it at the CME level as well would, however, ensure that progress is not stifled within the higher levels of the medical education system. This double-barreled approach would require more resources and support from CSM and U of C, but it would ensure a higher likelihood of positive measurable outcomes for Indigenous health.

Learners at different levels

In the interviews, several examples were given of how one medical provider may be at a different level of understanding of Indigenous health compared to another. One example was that future doctors could have been raised in different environments where their grade-school education covered very little about Indigenous history. Another example is the proportion of medical trainees who have rural placements and rotations in Indigenous communities compared to those who do not. The TRC report and calls to action did not exist until 2015 and some medical providers were simply never exposed to or encouraged to learn about historically disadvantaged populations and Indigenous health. Medical providers who come to Canada later in their lives may know very little about the history of colonization and residential schools in Canada or may have different knowledge of or experiences with Indigenous health from their home country. There are naturally a host of reasons why some medical providers are more interested in Indigenous health and motivated to provide better care for Indigenous populations. Each learner within medical education may be at a different level of knowledge and understanding, therefore education and training should appropriately reflect these different

needs. Education methods should be developed in a way that learners can engage with positively. This does not mean it has to be unique or groundbreaking, but people come into medicine from different backgrounds and lived experiences, so it does need to be longitudinal, experiential and account for different learning styles. Solutions need to be guided by the TRC and aimed at training providers how to a) effectively understand social determinants of health and Indigenous perspectives, b) become aware of and question personal biases in order to change attitudes towards Indigenous patients, c) distinguish and identify the subtly of systemic racism in healthcare (as opposed to a personal prejudice), and d) make space and create an opportunity for the Indigenous patient to advocate for themselves. The veins of systemic racism run deep across the country and as physicians are people too, they are not immune to its structural effects on the system. In fact, positioned at the interface between the scientific and lay cultures, medical providers and the training they receive are part of the structure of the system, and this is precisely why the focus on medical education is important.

The importance of collaboration

Once leadership and those highest in the medical hierarchy understand the need for Indigenous health education and training and are committed to making the necessary changes, interprofessional collaboration should take place across the U of C (Maldonado et al., 2014). Interviews for this thesis included medical education experts who were not physicians but had a deep understanding of how and when to apply the appropriate learning techniques. One expert mentioned that physicians obviously know the clinical knowledge and skills but can teach the material in a way that is not the most effective for the learners. The U of C has consultants in the Office of Health and Medical Education Scholarship (OHMES) who focus on simulation based medical education, competency based medical education, and health advocacy. OHMES is a

resource that CSM should use to effectively implement Indigenous health into medical education and training. As it is not inherent that these consultants themselves have expertise or competency around Indigenous health and anti-racism, their skills and knowledge should be complimented with individuals with expertise in this area. In fact, many interview participants stressed the importance of working with experts in population health through all processes of Indigenous health education. Education experts and others mentioned that these partnerships happened intermittently, but not always in the most effective ways. For example, physicians may co-teach an Indigenous health topic to learners with a population health content expert, and then a simulation and debrief would be run without an education expert to ensure the method is properly conducted with measurable competencies for evaluation. The importance of realizing where learners are within Bloom's taxonomy can easily be overlooked. With Indigenous health education, one teaching methodology will not suit every learner. When it comes to specialized and niche areas such as Indigenous health, there should be collaboration between content experts (Indigenous representatives and population health scholars who can facilitate learning sessions), education experts (individuals who know course design and understand knowledge translation) and medical experts (physician educators who understand the real utilization of the knowledge and skills). Only in this way can evidence-based teaching that is appropriately adapted to medical education and achieves measurable competencies be achieved.

Support must not only come from within the institution, there should be a strategy to include Indigenous communities every step along the way. Genuine, long-term relationship building takes time and should not be rushed. A participant highlighted this importance when he said, "…this is something that is a lifetime's work. It is crucial to have champions that have

navigated both systems and having healthcare provider who are also from Indigenous communities."

Consolidation of champions' efforts

There is ample support at the U of C and CSM to make change happen for Indigenous health initiatives, it is just unorganized. Champions are known for their involvement in Indigenous health education and are constantly asked to give lectures or do workshops on Indigenous health for small groups on an ad hoc basis. Oftentimes, champions bear the emotional and cultural labor that can sometimes consume them, creating opportunity for phases of burnout. There is a relatively small number of champions whose time and energy are spread thinly across efforts at the U of C, contributing to fewer efforts coming to fruition. There may be other variables to consider, but finding supporters, or allies, to align with champions to help distribute this work would make changes more manageable. Faculty and staff members, namely senior attending physicians and preceptors who have more power in the medical hierarchy, should be targeted for buy in and understanding of the need for Indigenous health. If they become supporters, they can call themselves champions or allies. This would mitigate a level of bias and reduce hesitation from physicians and faculty who may otherwise resist change because they feel like something is being done *to* them. Instead, if these individuals are encouraged and included earlier, these efforts are now being undertaken *with* them, and they do not feel their position being challenged by a new initiative being promoted with them as outsiders. The energy of champions (both Indigenous and non-Indigenous) in positions of power should be consolidated, especially those who hold committee positions or are affiliated with accreditation boards such the Royal College and the College of Family Physicians of Canada (CFPC).

In recent years, medical programs around Canada have strategically included Indigenous health as a specific focus in their vision statement or strategic goal. Of the 17 medical schools across Canada, the ones to make this move include: The University of British Columbia, Northern Ontario School of Medicine, Dalhousie University, Memorial University, the University of Manitoba, the University of Ottawa, University of Toronto, and the University of Saskatchewan. These efforts from around the country should not go unnoticed and serve as an example for other medical institutions. In order to disrupt a history of ephemeral attempts at Indigenous inclusion, CSM leadership should consider making Indigenous health an official focus area of its mission and vision statements.

Throughout interviews in this study, champions and allies of Indigenous health agreed that medical education should not be the point where medical providers are exposed to and engaging with Indigenous education for the first time. The same can be said for medical school and even university, too. From a systems level, Indigenous history should be introduced earlier, in grade-school and in a child's home. Indigenous history precedes what is now known as Canada, and colonization and the development of Canadian history has greatly impacted Indigenous health. Continuous acknowledgement of the native land we occupy should be known by all Canadians and taught at all levels of education. Healthcare providers carry a unique responsibility of providing culturally competent care to patients. Medical providers whose hopes and responsibilities are to help those who are sick and at risk for illness and injury especially need the knowledge and skills to provide not equal, but equitable, healthcare to all Canadians. This initiative has gained national focus after the TRC report was published in 2015. The TRC urges institutions to recognize and address Indigenous health disparities, and for medical schools in Canada this should translate directly into action to improve quality of healthcare and health

outcomes for Indigenous populations by training future generations of medical providers to provide culturally competent care.

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