Physiotherapy Curricula and Indigenous Peoples:

A Snapshot of Canadian Physiotherapy Programs

by

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Abstract

Background: In recent years, Canadian universities have been striving to improve engagement with Indigenous Peoples, knowledges and perspectives. Despite these efforts, and in the absence of national guidance, little is known about what changes are taking place in physiotherapy curricula, nor what processes are undertaken to develop and implement these changes.

Objective: The purpose of this study was to explore how Canadian physiotherapy curricula are changing in relation to Indigenous Peoples and their communities.

Methods: This study used a cross-sectional design informed by a theoretical framework of transformative learning. Canadian physiotherapy program faculty participated in a questionnaire-based interview from February to July 2020. Data were analysed using descriptive statistics and thematic analysis, and this was also informed by a critical anti-colonial lens.

Results: Fourteen of the 15 Canadian physiotherapy programs were represented. Programs demonstrated great diversity in content areas taught, number of teaching hours per content area, and teaching and assessment methods, with total mandatory teaching time ranging from 45 minutes to 41 hours. Eleven programs were planning to increase curricular content and eight programs had at least one Indigenous person involved in teaching. Open-ended responses were organised into five themes related to curricular development processes: An Indigenous Worldview is Key; Universities are Putting Supports in Place; Processes are Complex and Challenging; Faculty Members Have Learning Needs; and Drivers for Change.

Conclusion: Diversity in curricular content between programs is likely related to curricular development being driven by local faculty member initiative and institutional directive rather than national guidelines. Physiotherapy programs are attempting to engage with Indigenous Peoples, however there was minimal mention of power structures such as settler colonialism, racism and White supremacy within curriculum development processes. The results of this study highlight the need for: (1) conceptualization of anti-colonial, anti-racist and culturally safe physiotherapy; (2) relational accountability to Indigenous Peoples; (3) faculty development; and (4) collaboration between Canadian PT programs. This thesis also describes a settler graduate student's process of 'coming to know'.

Résumé

Mise en contexte: Au cours des dernières années, les universités canadiennes tentent d'améliorer leur engagement avec les peuples autochtones, leurs connaissances et leurs perspectives. Malgré ces efforts, et en l'absence de directives nationales, les changements en cours dans les programmes de physiothérapie et les processus entrepris pour développer et mettre en œuvre ces changements sont peu connus.

Objectif: L'objectif de cette étude était d'explorer comment les programmes de physiothérapie canadiens changent par rapport aux peuples autochtones et à leurs communautés.

Méthodes: Cette étude a utilisé un devis transversal éclairé par un cadre théorique d'apprentissage transformatif. Des professeurs des programmes de physiothérapie canadiens ont participé à des entrevues à base de questionnaire de février à juillet 2020. Les données ont été analysées à l'aide de statistiques descriptives et d'une analyse thématique, ce qui a été également éclairée par une perspective anticoloniale critique.

Résultats: Quatorze des 15 programmes de physiothérapie canadiens ont été représentés. Les programmes ont fait preuve d'une grande diversité dans les domaines de contenu enseignés, le nombre d'heures d'enseignement par domaine de contenu et les méthodes d'enseignement et d'évaluation, le temps d'enseignement obligatoire total allant de 45 minutes à 41 heures. Onze programmes prévoyaient d'augmenter le contenu des programmes et huit programmes ont au moins une personne autochtone impliquée dans l'enseignement. Les réponses ouvertes ont été organisées en cinq thèmes liés aux processus de développement curriculaire: une vision du monde autochtone est clé; les universités mettent en place des soutiens; les processus sont complexes et exigeants; les professeurs ont des besoins d'apprentissage; et les moteurs du changement.

Conclusion: La diversité du contenu curriculaire entre programmes est probablement liée au développement curriculaire guidé par l'initiative des professeurs locaux et les directives institutionnelles plutôt que par des directives nationales. Les programmes de physiothérapie tentent de s'engager avec les peuples autochtones, cependant il y avait peu de mention des structures de pouvoir telles que le colonialisme, le racisme et la suprématie blanche dans les processus d'élaboration des programmes. Les résultats de cette étude mettent en évidence la nécessité: (1) d'une conceptualisation de la physiothérapie anticoloniale, anti-raciste et

culturellement sécuritaire; (2) de la responsabilité relationnelle envers les peuples autochtones; (3) de formation professorale; et (4) de la collaboration entre programmes de physiothérapie. Cette thèse décrit également un processus « coming to know » d'une étudiante de recherche colonisatrice.

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Chapter 1: Introduction

This chapter presents an introduction to this thesis and is organized into six sections: (1) Personal Trajectory, where I describe the personal journey that brought me to this work; (2) Terminology, where I define key terms; (3) Social Accountability, where I introduce a driving force for societal change; (4) Study Rationale; (5) Study Objective; and (6) Thesis Organization.

1.1 Personal Trajectory

I am a White settler living and working on unceded Kanien'kehá:ka territory, on the island of Tiohtià:ke, commonly known as the city of Montréal. In addition to completing graduate work here, this is where I was born and raised. My parents, also raised here, are Dutch and Italian, and my grandparents were immigrants. I am therefore second generation Canadian as well as half Dutch and half Italian.

Early in my professional career as a physiotherapist, I moved to an Indigenous community in northern Canada, where for several years I was privileged to provide physiotherapy (PT) services in two Indigenous communities (one where I was based and the other that I travelled to). During these years, I experienced tensions between what I understood to be my role as a physiotherapist and what I felt was an appropriate way to respond to what was presented as rehabilitation needs in these communities. I found that the ways that I had learned to communicate and relate to people did not elicit the types of responses that I was accustomed to. I also experienced emotional discomforts that I could not understand. I struggled with these tensions and was not able to come to terms with them at the time.

It was not until years later, when I began to learn about concepts such as power and privilege, and about the colonial history of Canada, that I *began* to be able to understand and unpack some of these tensions. In retrospect, I now understand that I had arrived in these communities completely unaware of my own culture and its tacit assumptions and implicit biases. I also had been completely unaware of the historical and ongoing systemic oppression and cultural genocide against Indigenous Peoples in Canada and the ways in which I was, and am, unknowingly complicit with this. I now also understand many of my emotional discomforts to have been classic examples of 'White fragility' (defined in a subsequent section of this chapter). I had not learned about any of these things during my PT training, nor in any of my general education before that. I feel this to have been a significant gap in my education as a

physiotherapist, and for this reason I became very interested in learning more about what is currently taught in Canadian PT programs in relation to Indigenous Peoples.

1.2 Terminology

In this thesis, *Indigenous Peoples* refers to First Nation, Inuit and Métis Peoples originating from the land that is now known as Canada. I have chosen to use the term *Indigenous* rather than *Aboriginal*, in following the lead of contemporary Indigenous scholars (Battiste et al., 2002; Gaudry & Lorenz, 2018; Joseph, 2018; Kovach, 2009; Restall et al., 2016; Smith, 2012; Tuck & Yang, 2012; Vowel, 2016; Wilson, 2008), and because it recognizes inherent relationship with the land (Restall et al., 2016; International Journal of Indigenous Health, n.d.).

Aboriginal Peoples also refers to First Nation, Inuit and Métis Peoples, and was formally adopted in Canada as the official designation in 1982 through Section 35 of the *Constitution Act* (Constitution Act, 1982). Most government reports and publications, as well as much related literature, also use this terminology. Since 2016, the Canadian government has replaced *Aboriginal* with *Indigenous* in government communications (Joseph, 2018).

In addition, *Indigenous Peoples* is plural in recognition of the rich diversity of Indigenous Peoples in Canada - they are not a single homogeneous group. I have also chosen to capitalize the first letter of each word because they are a proper noun and adjective referring to a specific aggregate of groups, in the same way the term *Canadian* is capitalised (Vowel, 2016).

And finally, PT education refers to the education process which leads to entry-level PT practice, whereas PT curriculum refers to the curricular component of PT education and includes curricular content, teaching methods and assessment methods. Although some sections of this thesis refer to PT education generally, the primary focus is PT curricula.

1.3 Calls for Change

> For over a century, the central goals of Canada's Aboriginal policy were to eliminate Aboriginal governments; ignore Aboriginal rights; terminate the Treaties; and, through a process of assimilation, cause Aboriginal peoples to cease to exist as distinct legal, social, cultural, religious, and racial entities in Canada. The establishment and operation of residential schools were a central element of this policy, which can best be described as "cultural genocide". (Truth and Reconciliation Commission of Canada [TRC], 2015a, p. 1)

The TRC was established in 2008 as one component of the *Indian Residential Schools Settlement Agreement* (TRC, 2015a). Its mandate was to document the complex history and legacy of Indian Residential Schools, and to "guide and inspire a process of truth and healing, leading toward reconciliation" between Indigenous Peoples and non-Indigenous Canadians (TRC, 2015a, p. 27). The TRC (2015a) defined reconciliation as "an ongoing process of establishing and maintaining respectful relationships" (p. 16), which requires "awareness of the past, acknowledgement of the harm that has been inflicted, atonement for the causes, and action to change behavior" (p. 6).

After six years of hearings in 77 communities across Canada, with over 6750 statements collected and extensive review of government documents, the TRC published multiple reports including 94 Calls to Action intended to redress the legacies of colonization and racialization which continue to shape Canadian policy (TRC, 2015a, 2015b). The Calls to Action span all segments of society, including child welfare, education, language and culture, health, and justice (TRC, 2015b). Several of the Calls to Action are relevant for PT education.

1.4 Study Rationale

Although the issues raised by the TRC are not new, they have gained significant attention within Canadian society, at least rhetorically, with the 2015 release of the TRC reports and Calls to Action (Gaudry & Lorenz, 2018). Postsecondary institutions and professional associations, among other institutional and organizational bodies, are being called to "respond to the TRC" and demonstrate commitment and action toward reconciliation. The PT profession specifically is also "grounded in the belief that to be effective, its services must respond to the changing needs of populations and health systems" (Canadian Physiotherapy Association [CPA], 2012, p. 1). Although the inherent issues to be addressed are pervasive across postsecondary education programs, they may be addressed differently depending on the subject matter but also local institutional policy and culture. In the context of Canadian PT curricula, there is an absence of national guidance in terms of what changes may need to take place within Canadian PT programs and how such change may be implemented. In the absence of such guidance, little is known about how Canadian PT curricula are changing in relation to Indigenous Peoples and their communities.

1.5 Study Objective

The objective of this study is to explore how Canadian physiotherapy curricula are changing in relation to Indigenous Peoples and their communities.

The research questions guiding this study are:

1) What curricula are currently in use or under development and in what context?
2) How were the curricula developed, how have they evolved, and what have been the barriers and facilitators in this process?
3) What has shaped the development and evolution of the curricula?

1.6 Thesis Organization

This thesis is organized into five chapters subsequent to the present one: (2) Background and Literature Review; (3) Methodology and Methods; (4) Results; (5) Discussion; and (6) Conclusion. These are followed by References, and nine Appendices containing supporting documents referred to within Chapter 3.

Chapter 2: Background and Literature Review

This chapter presents an overview of background concepts and structures and a review of relevant literature followed by elaboration of the relevance of this study and expected contributions. It is organized into eight sections: (1) Colonialism, Racism and White Supremacy; (2) Foundations of Physiotherapy Curricula; (3) Physiotherapy Practice; (4) Philosophies of Knowledge; (5) Indigenization and Decolonization of Health Professions Education; (6) Literature to Inform Physiotherapy Education; (7) Current Practice in Physiotherapy Education; (8) Study Relevance, and (9) Expected Contributions.

2.1 Colonialism, Racism and White Supremacy

As expounded by the TRC, the ongoing damaging effects of colonization in Canadian society warrant change in healthcare services and health professions education (TRC, 2015b), which include PT practice and education. An understanding of what changes may be indicated requires definition and discussion of colonialism, racism, and White supremacy.

Colonialism, strictly speaking, is the establishment of settlements on distant territory (Said, 1993, as cited in Ashcroft et al., 2013, p. 54). In the context of European expansion during the past 400 years, colonialism is inextricably tied to imperialism (Ashcroft et al., 2013), which Said (1993) defined as "the practice, the theory, and the attitudes of a dominating metropolitan center ruling a distant territory" (p. 8, as cited in Ashcroft et al., 2013, p. 54). Ashcroft et al. (2013) further clarified that "European colonialism in the post-Renaissance world became a sufficiently specialized and historically specific form of imperial expansion to justify its current general usage as a distinctive kind of political ideology" (p. 54). In this thesis, which is situated in the context of the land now known as Canada, colonialism refers to both the ideology and practice of establishing European settlements in new territories.

Colonialism requires the creation of unequal power relations between the 'colonizers', or 'settlers', and the people already living on the 'new territories' – the 'colonized' (Ashcroft et al., 2013). Domination and control must be established and maintained for settlers to have access to the resources of the new territories, especially the land (Ashcroft et al., 2013; TRC, 2105a; Tuck & Yang, 2012). Settler colonialism is a particular type of colonialism where settlers arrive "with the intention of making a new home on the land, a homemaking that insists on settler sovereignty over all things in their new domain" (Tuck & Yang, 2012, p. 5), and where "the invading Europeans (or their descendants) annihilat[e], displac[e] and/or marginaliz[e] the [Indigenous

people] to become a majority non-[I]ndigenous population" (Ashcroft et al., 2013, p. 236). Canada is an example of a settler colonial nation.

In settler colonialism, domination and oppression of the colonized is enforced and reinforced each day of occupation (Tuck & Yang, 2012). In this way, settler colonialism is not an event but rather a structure (Tuck & Yang, 2012) – the institutionalization of oppression. This is an ongoing reality in Canada, particularly demonstrated through the *Indian Act* (Indian Act, 1985). First created in 1876, the *Indian Act* gave the government of Canada sweeping powers over Indigenous lands, identity, political structure, governance, education, cultural practices and healthcare (First Nations Studies Program, 2009; Henderson & Parrott, 2020; Joseph, 2018). This act is still in effect today "with basically the same framework it had in 1876, despite numerous amendments" (Joseph, 2018, p. 10) – it continues to control and restrict the lives of Indigenous Peoples, particularly with regards to self-determination (First Nations Studies Program, 2009; Joseph, 2018).

Racism may be broadly understood as unfair treatment according to race (Oxford, n.d.). 'Race' itself is a social construct classifying human beings into "physically, biologically and genetically distinct groups" (Ashcroft et al., 2013, p. 218). It emerged as a theory during European colonial expansion and was taken up as justification for colonial domination and oppression (Ashcroft et al., 2013). As such, "'racism' is not so much a product of the concept of race as the very reason for its existence. Without the underlying desire for hierarchical categorization implicit in racism, 'race' would not exist" (Ashcroft et al., 2013, p. 219).

Jones (2000) conceptualized racism on three levels: institutionalized, personally mediated, and internalized. She defined institutionalized racism as "differential access to the goods, services, and opportunities of society by race" (p. 1212), personally mediated racism as "prejudice and discrimination, where prejudice means differential assumptions about the abilities, motives, and intentions of others according to race, and discrimination means actions toward others according to their race" (pp. 1212-1213), and internalized racism as "acceptance by members of the stigmatized races of negative messages about their own abilities and intrinsic worth" (p. 1213). Jones highlighted that institutionalized racism is the most fundamental of the three levels and emphasized its role in creating the initial entrenched structural barriers and societal norms which are the foundation for the other two levels.

In Western society, racism is commonly mistakenly understood as limited to individual acts of hatred rather than a system into which we are socialized and which may be promulgated both intentionally and unwittingly (DiAngelo, 2018). While there are many ways to categorize levels of racism, I selected Jones' conceptualization for the purpose of differentiating individual racism from systemic racism and because it represents the perspective of a racialized scholar rather than a non-racialized scholar. Although this perspective was useful to inform this research study, I recognize that there may be others that could have been equally or more informative. However, for the purpose of this research study, these were not explored.

In the colonial history of Canada, the interplay between racism and colonialism has been seamless – each have informed the other over time in the creation and maintenance of systemic oppression against Indigenous Peoples. Indigenous Peoples were explicitly considered racially and culturally inferior to Europeans – 'savages' in contrast to the 'civilized' Europeans – which justified multiple extensive policies of forced assimilation and cultural genocide (Royal Commission on Aboriginal Peoples [RCAP], 1996; TRC, 2015a; Tuck & Yang, 2012). Despite remodelling of systems and policies over time, systemic oppression and cultural genocide against Indigenous Peoples in Canada is ongoing, including in the areas of healthcare and education (Allan & Smylie, 2015; Battiste et al., 2002; Gaudry & Lorenz, 2018; Indigenous Health Working Group, 2016; RCAP, 1996; TRC, 2015a; Tuck & Yang, 2012).

> White supremacy captures the all-encompassing centrality and assumed superiority of people defined and perceived as white, and the practices based upon that assumption. White supremacy is not simply the idea that whites are superior to people of color (although it certainly is that), but a deeper premise that supports this idea – the definition of whites as the norm or standard for human, and people of color as an inherent deviation from that norm. (DiAngelo, 2017, para. 5)

'White' itself is the socially constructed racial designation for Europeans and their settler descendants (Ashcroft et al., 2013). As a social construct that is unstated, whiteness became the norm against which all other races are distinguished:

> Since European and later American races occupied the dominant pole in the binaries of race in the post-slavery era and African, Asian and [Indigenous] peoples were the majority constituents of the subaltern pole, the category white was effectively occluded, naturalized as an always already-given category against which other races could be

> distinguished and so not needing to be constituted in a specific way as a separate race grouping. In fact, of course, like all chromatic typologies, the terms employed in these racist discourses – black, brown, red, yellow and so forth – were designed to homogenize the complexities of difference which exist within the single human species. But the category of white has a specific force, since it is unstated, set apart by its force as the normative. (Ashcroft et al., 2013, p. 272)

White supremacy is thus a particular form of racial domination which emerged out of European colonialism and which has become embedded within North American society (among other places) (DiAngelo, 2018). In this thesis, I refer to White supremacy as the system which privileges White social and cultural norms and White people, in contrast to an individual conviction or belief.

The term 'White fragility' describes discomforts which can be experienced by persons defined and perceived as White when exploring topics of race and privilege:

> White Fragility is a state in which even a minimum amount of racial stress becomes intolerable, triggering a range of defensive moves [such as] the outward display of emotions such as anger, fear, and guilt, and behaviors such as argumentation, silence, and leaving the stress-inducing situation. These behaviors, in turn, function to reinstate white racial equilibrium. Racial stress results from an interruption to what is racially familiar. (DiAngelo, 2011, p. 57)

White fragility can be a significant barrier limiting the ability of White people to explore and understand issues of racism and White supremacy (DiAngelo, 2011, 2018).

In Canada, as in many other places, White supremacy, racism and colonialism are inextricably intertwined and embedded within the very fabric of society (Allan & Smylie, 2015; Battiste et al., 2002; DiAngelo, 2011, 2017, 2018; Gaudry & Lorenz, 2018; Indigenous Health Working Group, 2016; RCAP, 1996; TRC, 2015a; Tuck & Yang, 2012). They manifest together as the ongoing systemic privilege of Eurocentric/White ways of being and doing, and the systemic oppression of Indigenous (and other[1]) ways of being and doing (Allan & Smylie, 2015; Battiste et al., 2002; DiAngelo, 2011, 2017, 2018; Gaudry & Lorenz, 2018; Indigenous Health Working Group, 2016; RCAP, 1996; TRC, 2015a; Tuck & Yang, 2012). This is compounded by

[1] While I acknowledge that racism and White supremacy affect many racial groups, the focus of this thesis is Indigenous Peoples

the tacit assumption of neutrality and universality of Eurocentric/White ways (Battiste et al., 2002, Gaudry & Lorenz, 2018; Tuck & Yang, 2012). It is also compounded by its invisibility to those who benefit from these systems (Allan & Smylie, 2015; Battiste et al., 2002; DiAngelo, 2011, 2017, 2018; Gaudry & Lorenz, 2018; Indigenous Health Working Group, 2016; Nixon, 2019; Tuck & Yang, 2012).

In Canada, systemic oppression against Indigenous Peoples remains embedded within both healthcare practice and postsecondary education. PT curricula are located at the intersection of these two systems. The following section describes the foundations of PT curricula in Canada.

2.2 Foundations of Physiotherapy Curricula

In Canada there are 15 entry-to-practice PT education programs (see Figure 1), each conferring a professional master's degree (Canadian Council of Physiotherapy University

Figure 1. *Geographic distribution of the 15 entry-to-practice PT programs in Canada*[2]

[2] Map with province and province capital names obtained January 21, 2021, from https://commons.wikimedia.org/wiki/File:Political_map_of_Canada.svg

Programs [CCPUP], 2019). Ten of the programs are masters level entry, while five are combined bachelor-masters programs. One of the five combined bachelor-master's programs offers a dual point of entry (bachelor or masters level entry). Ten of the programs are offered in English and five in French.

The standards which define PT entry-to-practice competence in Canada are described in the *Competency Profile for Physiotherapists in Canada* ("Competency Profile") (National Physiotherapy Advisory Group [NPAG], 2017). This document was released in 2017 and replaces previous iterations published in 2009, 2004, and 1998 (NPAG, 2017). It is the foundation upon which PT education is based, guiding PT program curricula and setting PT program accreditation standards (NPAG, 2017). Within seven domains of practice, there are 34 essential competencies and 140 entry-to-practice milestones required of students by the time of completion of each PT program (NPAG, 2017).

The current Competency Profile was developed according to a "robust methodology based on industry best practices" (NPAG, 2017, p. 4). This involved the efforts of a team of nine PT clinician and educator subject matter experts from across the country, input from a series of focus groups with key stakeholder groups, and review of recent scholarly literature (NPAG, 2017). The document was then validated by a national survey of practicing physiotherapists and revised accordingly (NPAG, 2017).

Quality of education delivered by PT programs in Canada is assured through a process of accreditation (Physiotherapy Education Accreditation Canada [PEAC], 2012). Although accreditation is voluntary, only students graduating from accredited PT programs are eligible to sit the Physiotherapy Competency Exam, which is required for licensure (except in the province of Québec). The process of accreditation is completed by PEAC at least every six years according to the *PEAC Accreditation Standards 2012* ("Accreditation Standards") (CCPUP, 2019; PEAC, 2012). The framework for the Accreditation Standards is based on a model for accreditation of health professions education with six standards: (1) program governance and resources, (2) program development and evaluation, (3) faculty, (4) students, (5) accountability, and (6) physiotherapy competencies (PEAC, 2012). Standards 1-5 of the Accreditation Standards, and their associated criteria outlining how programs may demonstrate compliance with the standard, "were adapted for Canadian physiotherapy education programs based on

feedback resulting from focus groups and a broad national consultation with stakeholders" (PEAC, 2012, p. 6). Standard six and its associated criteria relate to curricular content and are based entirely on the Competency Profile.

As the current Accreditation Standards were published in 2012, Standard six is currently based on the prior Competency Profile published in 2009 (NPAG, 2009; PEAC, n.d.). Within a renewed version of the Accreditation Standards, currently under development and due for publication in late 2020, Standard six will be based on the current 2017 Competency Profile (PEAC, n.d.).

A third document which directly informs PT curricula in Canada is the *National Physiotherapy Entry-to-Practice Curriculum Guidelines 2019* ("Curriculum Guidelines") (CCPUP, 2019). Published in 2019, to replace the previous edition of 2009, this document is founded on the current 2017 Competency Profile (CCPUP, 2009, 2019). The purpose of the Curriculum Guidelines is to "describe the recommended elements of academic and clinical content of a program's curriculum" (CCPUP, 2019, p. 6). The Curriculum Guidelines were developed by the CCPUP, which is a national organization bringing together representation from each of the 15 Canadian PT programs. The Curriculum Guidelines focus on curricular content that "support[s] the essential competencies and entry-to-practice milestones of the Competency Profile, while respecting the diversity of conceptual frameworks and delivery models that contribute to the depth and breadth of physiotherapy education in Canada" (CCPUP, 2019, p. 5).

The PT Competency Profile, Accreditation Standards and Curriculum Guidelines are seminal documents which underpin physiotherapy education and practice in Canada (in addition to others, such as the provincial and territorial codes of ethical conduct and standards of practice, which also underpin PT practice). The revision and updating of these documents are ongoing and iterative processes based on changes and emerging trends in education, health, and regulatory environments, as well as changes and emerging trends specifically in physiotherapy education and scope of practice (CCPUP, 2019; NPAG, 2011, 2017; PEAC, 2012, 2015). Thus, the evolution of the PT profession over time drives the revision and updating of these documents. At the same time, these seminal documents also drive the evolution of the PT profession through accreditation and regulatory processes.

PT curricula are ultimately designed to prepare students for PT practice. However, the healthcare system, including PT practice, is ultimately grounded in the same systems which continue to oppress Indigenous Peoples. This is further elaborated in the following section.

2.3 Physiotherapy Practice

Article 24 of the United Nations *Declaration on the Rights of Indigenous Peoples* asserts that "Indigenous individuals have an equal right to the enjoyment of the highest attainable standard of physical and mental health" (United Nations, 2007, p. 7). According to the *2016 Census*, people who self-Identify as Indigenous represent 4.9% of the population in Canada, with over 60% (more than one million Indigenous persons) living among the general Canadian population – off-reserve and outside of Inuit Nunangat (Statistics Canada, 2017). Indigenous Peoples are also one of the fastest growing groups in Canada, increased by 42.5% from 2006 to 2016 (Statistics Canada, 2017).

Indigenous Peoples in Canada experience a vastly disproportionate burden of chronic illness and disability compared with non-Indigenous Canadians (Allan & Smylie, 2015; CPA, 2013, 2014; First Nations Information Governance Center [FNIGC], 2018; Reading & Wien, 2009). This has been demonstrated to be a direct result of colonization and government colonial policies, including the current complex and discriminatory systems of healthcare provision for Indigenous people (Allan & Smylie, 2015; Churchill et al., 2017; Czyzewski, 2011; FNIGC, 2018; Indigenous Health Working Group, 2016; Mowbray, 2007; Reading & Wien, 2009; Richmond & Cook, 2016; Society of Obstetricians and Gynaecologists of Canada, 2013; TRC, 2015a). These health inequities are perpetuated and also exacerbated by systemic and personally mediated racism against Indigenous Peoples, which is pervasive throughout the Canadian healthcare system, often unbeknownst to individual healthcare providers (Allan & Smylie, 2015; Churchill et al., 2017; FNIGC, 2018; Indigenous Health Working Group, 2016; Reading & Wien, 2009; Richmond & Cook, 2016). Despite this historical and ongoing oppression, it is important to note the resilience of Indigenous Peoples as their communities continue to thrive and grow (Stout & Kipling, 2003; TRC, 2015a).

Physiotherapists, as experts in movement and physical function, play an important role in the management and prevention of acute and chronic disease and injury as well as in health promotion (CPA, 2012). With such expertise, physiotherapists have the potential to positively impact Indigenous health inequities (CPA, 2013, 2014; Gasparelli et al., 2016). However, in the

context of a healthcare system grounded in colonialism and racism, physiotherapists can also easily cause harm to Indigenous patients unknowingly and unintentionally if they are unaware of the assumptions and biases which underpin their practice (Barudin & Zafran, 2019; Beavis et al., 2015; Beavis et al., 2019; Gasparelli, 2019; Skye, 2019). Skye (2019), for example, noted that "sometimes our [PT] 'best practice' might be harmful [to Indigenous patients] if we are perpetuating knowledge and practices based on colonial ideologies that conflict with Indigenous ways of knowing and doing" (p. 13). Beavis et al. (2019) similarly expressed the importance of "the realization that colonization has a strong foothold within our [PT] profession. Therefore, there is the potential of unintentionally perpetuating colonization through our practices and harming clients who are Indigenous" (p. 15). Gasparelli (2019) also noted that "as healthcare providers, physiotherapists represent a system created by colonialism and founded on a foreign perspective of health" (p. 158).

The PT profession itself lacks an explicit theoretical grounding, creating the misleading impression of an absence of tacit assumptions and biases (Gibson et al., 2010). Occupational therapy (OT), as an example in contrast, is grounded in the Canadian Model of Occupational Performance and Engagement (Townsend & Polatajko, 2007). The existence of explicit grounding principles opens the door to discussion and critique of these principles, and of the assumptions and biases that underpin them (see for example Hammell, 2015). In the *absence* of explicit theoretical underpinnings, as in PT, identification of tacit assumptions and biases, and particularly critique of them, is far more challenging and thereby occurs less frequently.

The PT profession, however, is indeed imbued with whiteness and the implicit assumption of the superiority of White cultural norms (Vazir et al., 2019; Yeowell, 2013) – that is, White supremacy. Vazir et al. (2019) found this to be true in Canada specifically, affirming that "racism [is] entrenched in the systems and structures that underpin PT", and that "racialized physiotherapists in Canada [need] to assimilate into a 'White profession'" (p. 339). Similarly, when conducting a PT assessment, "anything outside the White norm [is] considered abnormal" (Vazir et al., 2019, p. 339).

Cultural competence, a concept widely used in PT and healthcare generally in Canada, also reinforces taken-for-granted assumptions (Grenier, 2020). Cultural competence positions the healthcare provider as culturally neutral and raceless in a context where whiteness is the norm and the non-White healthcare recipient is a deviation from that norm (Grenier, 2020). It lacks

critical reflexivity about the healthcare provider's own positionality and social location, and neglects recognition of structural power inequities (Brascoupé & Waters, 2009; Fortin & Harman, 2020; Gerlach, 2012; Grenier, 2020). In this way, cultural competence upholds and reproduces the power imbalance of White supremacy in healthcare systems (Grenier, 2020), including the PT profession.

Many authors have argued for more critical approaches in healthcare generally and PT specifically, particularly those which recognize power relations and seek to reveal and challenge tacit assumptions and biases (Blake, 2020; Brascoupé et al., 2009; Eakin, 2016; Gasparelli, 2019; Gasparelli & Nixon, 2018; Gibson et al., 2010; Methot, 2020; Nixon, 2019; Njelesani, 2013; Paton et al., 2020; Setchell et al., 2018). Cultural safety is a concept which builds on cultural competence and even cultural humility to add explicit recognition of power differentials based on social positionality of the healthcare provider and colonial history and structures (Brascoupé et al., 2009; Churchill et al., 2017; Gasparelli & Nixon, 2018). As shown in Table 1, these cultural concepts may be considered cumulative points on a 'culture continuum' (Churchill et al., 2017; Gasparelli & Nixon, 2018). Cultural safety is considered an essential component of PT practice with Indigenous Peoples and their communities (Beavis et al., 2019; CPA, 2014; Fortin & Harman, 2020; Gasparelli, 2019; Gasparelli et al., 2016; Gasparelli & Nixon, 2018; Oosman et al., 2019; Tinker, 2019), as is trauma-informed care (Barudin & Zafran, 2019; Beavis et al., 2015; Beavis et al., 2019; CPA, 2014; Gasparelli, 2017; Hojjati et al., 2018; Tinker, 2019).

Table 1. *Culture continuum (Ward et al., 2016, p. 30)*

Cultural Awareness	An attitude that includes awareness about differences between cultures.
Cultural Sensitivity	An attitude that recognizes the differences between cultures and that these differences are important to acknowledge in health care.
Cultural Competency	An approach that focuses on practitioners' attaining skills, knowledge, and attitudes to work in more effective and respectful ways with Indigenous patients and people of different cultures.
Cultural Humility	An approach to health care based on humble acknowledgement of oneself as a learner when it comes to understanding a person's experience. A life-long process of learning and being self-reflective.
Cultural Safety	An approach that considers how social and historical contexts, as well as structural and interpersonal power imbalances, shape health and health care experiences. Practitioners are self-reflective/self-aware with regards to their position of power and the impact of this role in relation to patients. "Safety" is defined by those who receive the service, not those who provide it.

Allyship, an approach originating in social justice and anti-oppression discourses, may be understood as "an active, consistent, and arduous practice of unlearning and re-evaluating, in which a person in a position of privilege and power seeks to operate in solidarity with a marginalized group" (The Anti-Oppression Network, n.d.). Critiques of allyship include the individualization of oppression which shifts the focus away from addressing the structures that create the oppression (Sprout Distro, 2017). In the context of health inequities, Nixon (2019) has proposed a *Coin Model of Privilege and Critical Allyship*. This model shifts the focus from those groups experiencing oppression and health inequities, to the unjust social structures causing the oppression and the frequently unknowing complicity and therefore responsibility of those groups experiencing privilege from these same social structures. Nixon presents critical allyship as *action* in contrast to an identity – we cannot 'be' allies but rather 'practice critical allyship'. Nixon also recognizes that coming to understand one's own privilege and therefore complicity with systems of oppression can elicit feelings of guilt and discomfort – White fragility – which can impede one's ability to practice critical allyship. In the context of health inequities experienced by Indigenous Peoples, Nixon's model highlights the responsibility of non-Indigenous physiotherapists to understand their privilege and complicity with systems of colonialism, racism and White supremacy and to actively engage in disrupting and dismantling these systems to reduce and eliminate health inequities. This responsibility and call for action within the Canadian PT profession are also echoed by Blake (2020).

In this section I examined systemic oppression against Indigenous Peoples in healthcare generally and within the physiotherapy practice specifically. In the following section I discuss systemic oppression against Indigenous Peoples within postsecondary education generally.

2.4 Philosophies of Knowledge

The philosophies of knowledge which underpin post-secondary education in Canada emerged out of Europe and were exported internationally though colonialism (Battiste et al., 2002; Gaudry & Lorenz, 2018; Scheurich & Young, 1997; Smith, 2012; Tuck & Yang, 2012). The privilege of Eurocentric/White epistemologies, coupled with the oppression of Indigenous (and other) epistemologies, was an essential component of colonial domination and cultural genocide (Battiste et al., 2002; Gaudry & Lorenz, 2018; Smith, 2012; Tuck & Yang, 2012). Today, Eurocentric/White epistemologies continue to dominate the academic world and define standards of knowledge production, interrogation, validation and dissemination, including in

educational research (Battiste et al., 2002; Dei, 2002; Scheurich & Young, 1997; Smith, 2012; Tuck & Yang, 2012). Scheurich and Young (1997) referred to this as 'epistemological racism', asserting that "all of the epistemologies currently legitimated in education arise exclusively out of the social history of the dominant White race" (p. 8). These epistemologies include positivism, postpositivism, interpretivism, constructivism, the critical tradition, and postmodernisms/poststructuralism (Scheurich & Young, 1997). The privilege of these epistemologies in education and research is an enactment of colonialism and White supremacy.

The TRC Call to Action 62ii acknowledges the absence of Indigenous knowledges and perspectives in academic institutions in calling for resources to support their integration:

> We call upon the federal, provincial, and territorial governments, in consultation and collaboration with Survivors, Aboriginal people, and educators, to provide the necessary funding to post-secondary institutions to educate teachers on how to integrate Indigenous knowledge and teaching methods into classrooms. (TRC, 2015b, p. 7)

Since the release of the TRC reports in 2015, academic institutions across the country are struggling to find ways to ethically engage with Indigenous knowledges and Indigenous communities (Gaudry & Lorenz, 2018). Terminology used to describe these processes include reconciliation, indigenization, and decolonization (Battiste et al., 2002; Gaudry & Lorenz, 2018). These terms may be conceptualized and operationalized in a variety of ways, however what is critical to consider is whether the process includes challenging and disrupting the hegemony of Eurocentric/White knowledge (Battiste et al., 2002; Dei, 2002; Gaudry & Lorenz, 2018; Smith, 2012). If not, then Indigenous knowledges and epistemologies will continue to be marginalized and oppressed, even if they are 'integrated' into academic programs (Battiste et al., 2002; Dei, 2002; Gaudry & Lorenz, 2018; Smith, 2012). Additionally, it is important to note that even such conceptions of decolonization have been critiqued as reducing decolonization to a metaphor, where true decolonization is the actual return of the land and the ability to control and utilize those lands, leading to Indigenous self-determination and sovereignty (Tuck & Yang, 2012).

A key component of indigenization and decolonization of postsecondary education reported by Indigenous scholars is that they are a *process* which requires collaboration and partnership: "indigenization isn't just a 'pro forma' program, but rather a process built on collaboration, consensus, and meaningful partnership" (Gaudry & Lorenz, 2018, p. 224). Another key component frequently reported by Indigenous scholars is that this process must be

Indigenous led (Battiste et al., 2002; Gaudry & Lorenz, 2018; Smith, 2012; Tuck & Yang, 2012). In a study exploring the perspectives of Indigenous scholars across Canada, Gaudry and Lorenz (2018) reported that "Indigenous respondents also repeatedly noted that indigenization must be an Indigenous-led process, and that indigenization 'should not be about ensuring settler access to Indigenous nations' resources. If this is the goal, then Indigenization is just a euphemism for colonization'" (p. 222).

2.5 Indigenization and Decolonization of Health Professions Education

Despite a growing body of literature surrounding indigenization and decolonization of post-secondary education generally, this terminology is seldom found in health professions education (HPE) research and literature in Canada. Rare exceptions have emerged more recently in community psychology (Fellner, 2018; McNamara & Naepi, 2018; Schmidt, 2019) and nursing (Rodney, 2016), primarily as theoretical pieces drawing on literature, individual experience and some primary research.

In community psychology, scholars discussing decolonization and indigenization of education have done so from a Cree/Métis perspective (Fellner, 2018), from a non-Indigenous perspective (Schmidt, 2019), and from a perspective originating in Aotearoa New Zealand and the Pacific Islands (McNamara & Naepi, 2018). Common themes include teaching students to identify and challenge colonialism within the profession, the use of Indigenous pedagogies, and authentic partnership and collaboration with local Indigenous communities to inform curriculum, pedagogy, research and practice (Fellner, 2018; McNamara & Naepi, 2018; Schmidt, 2019). Schmidt (2019) particularly discussed the role of non-Indigenous faculty members through processes of relational exchange with Indigenous colleagues and communities.

Rodney (2016) discussed decolonization of HPE in Canada, though as a Canadian nursing educator teaching overseas and thus not in relation to Indigenous Peoples in Canada. Nonetheless, Rodney emphasized the critical importance of educators recognizing their own positionality: "it is not possible to teach from a place of neutrality or objectivity" ; and "without a clear understanding of how we are perceived as teachers and the privileges we take for granted, we continue to perpetuate colonizing relations" (p. e14).

Beyond the overarching and generalized transformation of HPE in relation to Indigenous Peoples, conceptualized as indigenization, decolonization or otherwise, the primary impetus for change in HPE in relation to Indigenous Peoples has been to improve health outcomes. This may

fall under the umbrella of topics such as Indigenous health, cultural safety, allyship, power and privilege, or anti-racism. Similarly, the TRC Call to Action 24 addresses HPE specifically:

> We call upon medical and nursing schools in Canada to require all students to take a course dealing with Aboriginal health issues, including the history and legacy of residential schools, the *United Nations Declaration on the Rights of Indigenous Peoples*, Treaties and Aboriginal rights, and Indigenous teachings and practices. This will require skills-based training in intercultural competency, conflict resolution, human rights, and anti-racism. (TRC, 2015b, p. 3)

While this recommendation targets nursing and medical schools, it is equally relevant for health professions generally, including PT (Hojjati et al., 2018).

2.6 Literature to Inform Physiotherapy Education

Despite the established need for change in Canadian PT curricula in relation to Indigenous Peoples, there is limited research to inform such change and only two studies specifically targeting the PT profession: one in Canada and one in Australia. Oosman et al. (2019) explored how a student practicum in a northern Indigenous community in Saskatchewan was effective in developing cultural humility in PT students. Keys to this success were community engagement, community-informed design of the practicum based on strong relationships, strong foundations in reflexive practice both during the practicum and in preceding coursework, and a base of community and student readiness. The practicum itself was born out of collaborative dialogue with community members through existing partnerships. Prior to the practicum, the students underwent extensive preparation through PT program required coursework, readings and assignments which included the history of colonization and its impacts on health and healthcare, racism in the healthcare system, cultural humility and cultural safety, and reflexive practice. Students also engaged in daily reflexive practice and discussion with Indigenous community mentors throughout the practicum itself.

Within an entry-level PT program in Australia, Bolton and Andrews (2018) reported on the use of "an Indigenous pedagogical framework that situates Indigenous health learning and relational understanding in the learning process" by way of an off-campus activity where PT students had the opportunity to "engage safely with an indigenised space … that privileges the non-essentialist Indigenous voice" (p. 37). Similar to the study by Oosman et al. (2019), students were prepared in advance using a cultural safety framework with "lectures regarding cultural

safety in healthcare, health literacy, self-awareness of own culture, and health beliefs and strategies for effective communication in healthcare consultations" (pp. 36-37). Student feedback demonstrated transformative learning with direct implications for PT clinical practice.

More generally to the rehabilitation professions in Canada, Hojjati et al. (2018) identified four core themes related to health equity for Indigenous Peoples that should be included in student training: (1) the historic trauma of colonization and its ongoing impacts for Indigenous Peoples, (2) the disproportionate burden of illness and inequitable access to services for Indigenous Peoples, (3) how rehabilitation is related to Indigenous ways of knowing, and (4) why rehabilitation is well-positioned to address health inequities with Indigenous Peoples. These authors noted that while some of these themes may be taught in some rehabilitation programs in Canada, comprehensive curricula are "the exception and not the rule", and "inclusion of this content will require capacity-building among teaching faculty both in terms of factual knowledge and reflexivity regarding one's relationship to colonization" (p. 3213).

More broadly still to all Canadian healthcare students, Beavis et al. (2015) identified three core content areas related to colonialism and health equity that should be included in student training programs: (1) experiences of Indigenous communities resulting from colonialism in Canada, (2) how colonial structures of power contribute to health inequities, and (3) how healthcare professionals' own experiences of privilege and oppression affect their practice. These authors also specified that content should be integrated longitudinally through a variety of interactive teaching strategies and developed in collaboration with Indigenous partners.

Other rehabilitation professions in Canada have reported on educational initiatives related to Indigenous Peoples. Within an occupational therapy (OT) program in Ontario, Jamieson et al. (2017) pilot tested an intervention on cultural safety and Indigenous health led by a trained Indigenous educator, resulting in increased OT student self-reported knowledge and cultural/emotional responses to cultural safety and Indigenous health. Moon et al. (2018) reported on the initiatives of an OT program in Alberta toward reconciliation with Indigenous Peoples, which began with an internal curriculum review and student survey and led to substantive engagement in creating and building upon partnerships with Indigenous Peoples and communities, including Indigenous OTs, to inform program development. Also an audiology and speech-language pathology (SLP) program in British Columbia (BC) described developing partnerships with Indigenous people and others to develop a course exploring approaches to

audiology and SLP for Indigenous Peoples, and how this course evolved over time according to feedback from students and Indigenous community visit sites (Bernhardt et al., 2011).

There exists also a smattering of published literature reflecting the efforts of the Canadian professions of social work (SW), nursing and medicine to engage in educational transformation in relation to Indigenous Peoples. In SW, several doctoral dissertations have been dedicated to this topic: Baskin (2005) explored Indigenous perspectives on Indigenous content in SW education in Ontario, Milliken (2010) explored the concept of cultural safety in SW education in in Manitoba, and Tamburro (2015) developed a self-assessment tool for SW educators to assess the Indigenous content in their curricula. As an Indigenous SW educator, Leduc (2018) discussed Indigenous pedagogies relationally grounded in the Indigenous lands where they are taught; as a non-Indigenous SW educator, Transken (2005) explored the use of Indigenous knowledges in SW education; and Ives et al. (2007) described a process of Indigenous community engagement and partnership in the co-development of an Indigenous SW education program.

In nursing, the Aboriginal Nurses Association of Canada (2009) published the *Cultural Competence and Cultural Safety in Nursing Education: A Framework for First Nations, Inuit and Métis Nursing*, a framework to support culturally safe curricula delivered in a culturally safe learning environment which privileges and respects Indigenous knowledge. Mahara et al. (2011) reported on the strategic planning of one baccalaureate nursing program in BC toward implementing this framework, emphasizing engagement of a wider community of Elders, nurses, students and faculty. Rowan et al. (2013) explored factors influencing successful integration of cultural competence and/or cultural safety in anglophone nursing programs across Canada, including leadership, partnerships and linkages, lack of policies to recruit and retain Indigenous faculty and lack of financial resources. Stansfield and Browne (2013) discussed the relevance of Indigenous knowledge in nursing curricula, highlighting its use as an entry point to understanding cultural safety and relational nursing practice and as a strength-based approach to learning about Indigenous Peoples' health. And Pijl-Zieber and Hagen (2010) expounded the use of Indigenous epistemologies and pedagogies in nursing education for the benefit of both Indigenous and non-Indigenous students.

Similarly, in medicine, the Indigenous Physicians Association and the Association of Faculties of Medicine of Canada collaboratively published the *First Nations, Inuit, Métis Health Core Competencies: A Framework for Undergraduate Medical Education*, an educational

framework grounded in the concept of cultural safety which also recognizes the distinct status of Indigenous Peoples in Canada:

> while varied languages, histories and health practices may also be true of cultural groups who have immigrated to Canada, *First Nations, Inuit and Métis peoples are not a cultural group to Canada*, but rather distinct constitutionally recognized peoples with Aboriginal and treaty rights.[3] (Indigenous Physicians Association & Association of Faculties of Medicine of Canada, 2009, p. 7)

Investigating the effects of a 3-hours Indigenous health seminar delivered to medical students in Ontario, Zhou et al. (2011) found short-term improvements in student knowledge and attitudes. The Northern Ontario School of Medicine has also documented their extensive and ongoing community partnership and collaboration in developing Indigenous health curriculum (Jacklin et al., 2014) and their implementation of "the world's first and only mandatory Aboriginal community placement for all its medical students" (Hudson & Maar, 2014, p. 2).

2.7 Current Practice in Physiotherapy Education

The Canadian PT Competency Profile lacks explicit language addressing any of the issues related to Indigenous Peoples outlined in this thesis (NPAG, 2017). Both the 2009 and 2017 Competency Profiles cover broad areas that could overarchingly include important specifics. For example, "social determinants of health" could include colonialism, racism and White supremacy, and "valuing diversity" could include critical reflexivity regarding one's own positionality, values and beliefs and their role in creating and perpetuating health inequities, to inform action to address these. However, when these terms are not specifically explicit, the interpretation of PT Competency Profile is left to the discretion of individual PT programs and faculty members. Some programs and faculty members may choose to include elements such as colonialism, racism and White supremacy within the curriculum while others may choose not to.

Little is known about what is actually taught in Canadian PT programs in relation to Indigenous Peoples – only 2 short opinion pieces describe initiatives within a small number of Canadian PT programs. At the PT program in Saskatchewan, Proctor and Oosman (2015) described partnerships with Indigenous Peoples in the development of an Indigenous health curriculum using a variety of interactive experiential learning opportunities toward fostering

[3] Emphasis in original text.

cultural safety in students. Similarly, Gruenig et al. (2019) reported on Indigenous curricular initiatives within the four PT programs in Alberta, BC, Manitoba and Saskatchewan, including anti-oppression, anti-racism, trauma-informed care, cultural safety, and Indigenous health. However, no empirical study has yet explored curricular content related to Indigenous Peoples in Canadian PT programs.

2.8 Study Relevance

Colonialism, racism and White supremacy are embedded within the PT profession and physiotherapy education in Canada, including curricula. Unless these systems are explicitly and intentionally challenged and disrupted, PT curricula remain complicit with them and therefore also with systemic oppression and cultural genocide against Indigenous Peoples. Since the release of the reports of the TRC in 2015, there is greater generalized societal awareness of the need for improved relations between non-Indigenous Canadians and Indigenous Peoples, which has translated into university-led efforts to reform post-secondary education in all programs, including the health professions. This is supported by a growing body of literature on topics such as decolonization, cultural safety, anti-racism, critical allyship and Indigenous pedagogy. However, in absence of clear and explicit guidance from the national PT Competency Profile and Accreditation Standards, little is known about how Canadian PT curricula are changing in relation to Indigenous Peoples and their communities. This study aimed to address this gap in knowledge by exploring how Canadian PT curricula are changing in relation to Indigenous Peoples and their communities.

2.9 Expected Contributions

The development and revision of physiotherapy curricula in each Canadian institution is an ongoing and iterative process which must consider changes and emerging trends in education, health, regulatory environments and in physiotherapy roles and education. The results of this study may serve to inform curricular development and revision in individual institutions toward improved relations between non-Indigenous Canadians and Indigenous Peoples and to better prepare PT students to address health inequities. They may also inform revision of Competency Guidelines and Accreditation Standards, as well as future research investigating how PT education may further transform in relation to Indigenous Peoples and their communities.

Chapter 3: Methodology and Methods

In this chapter, I present the methodology and methods of this study, which are divided into the following sections: (1) Reflexivity Before Study Execution; (2) Theoretical Framework; (3) Study Design; (4) Research Team; (5) Data Collection instrument; (6) Participants and Recruitment; (7) Data Collection; (8) Data Analysis; (9) Reflexivity During Study Execution; and (10) Ethical Considerations.

3.1 Reflexivity Before Study Execution

Reflexivity in the context of research is a researcher's process of self-reflection and critique of their own biases and assumptions and how these may influence the research process (Finlay, 2002). Personal and professional biases and assumptions may influence all stages of the research process, from study conception and literature review through clarification of the research question, selection of the study methodology and methods, data collection and analysis, and discussion/conclusion. Reflexivity is particularly important in contexts laden with power dynamics, where study results may have the power to reinforce (or challenge) hegemonic systems and structures of oppression. In a context where research about Indigenous Peoples has been consistently conducted by non-Indigenous people in ways that reinforce and perpetuate colonial domination and control (Smith, 2012), any research involving Indigenous Peoples in any way requires thoughtful reflexivity and ethical consideration.

In this section, I discuss reflexivity surrounding my own personal positionality, professional experience, and personal beliefs, motivations and trepidations. In later sections, I discuss my reflexive process during data collection and analysis and formulation of results. In this way, my reflexive process is woven into various locations, intending to illustrate how this process evolved over time and through the various stages of the research process.

3.1.1 Personal Positionality

As a White, settler, middle-class, non-disabled, anglophone, queer, cis-gendered woman, I grew up in an English-speaking, middle-class area of Montréal, in the province of Québec where the official language is French. Although I experienced mild discrimination as a bilingual anglophone, I generally benefitted (and continue to benefit) tremendously from the privileges of being White, middle-class, non-disabled and a settler. I grew up completely unaware of these privileges and I generally had minimal exposure to anyone Indigenous or non-White.

I attended elementary and high school in Montréal in the 1980s and 1990s, during which time Indigenous Peoples were absent from history education except for brief mention during early colonial arrival. Even the landmark *James Bay and Northern Québec Agreement* (Les Publications du Québec & Hydro-Québec, 1998), the first modern-day treaty signed in 1975, was absent. Instead of learning about the rich and diverse cultures of Indigenous Peoples, I was exposed through the media to common stereotypes, for example that Indigenous Peoples are lazy, homeless, have substance-abuse problems, and rely on government handouts.

The dominant White/Eurocentric/colonial narratives into which I was raised are embedded within my worldview, perspectives and values, and subsequently embodied in my own personal ways of being and doing in ways that I am working toward becoming aware of. This renders me complicit with settler colonialism and reproducing systems of oppression against Indigenous Peoples, even when I do not intend it. I aim to counter this complicity by actively engaging in anti-colonial practices – that is, actively challenging, disrupting and seeking to dismantle the systems and structures which privilege White/Eurocentric ways of being and doing and oppress Indigenous (and other) ways of being and doing. Despite these efforts, there will always be limits to the extent to which I am able to personally identify and understand these systems and structures, and ways to challenge, disrupt and dismantle them. This is because I have never personally experienced the ways in which they are oppressive and cause harm, and because one of the ways oppression functions is by making those in a dominant position unaware of their roles in oppression or even of their privilege.

The overarching implication of my social identity as a White settler and my early social and educational experiences in a segregated settler colonial nation, for a study exploring issues related to Indigenous Peoples, is that I am likely to unwittingly reproduce and reinforce White/Eurocentric/colonial narratives and settler colonialism generally. My understanding of this risk and its implications evolved through the course of completing the study – this is described in later sections of this chapter. To attempt to reduce this risk, I undertook a reflexive process throughout all phases of the study, and an Indigenous scholar was recruited to the research team. In retrospect, I now feel these measures to have been insufficient. On one hand because of the inherent limitations in my ability, as a White settler, to understand the ways in which I may unwittingly reproduce and reinforce White/Eurocentric/colonial narratives. And on the other

hand, because a single Indigenous scholar on the research team, though extremely important and invaluable, is not a substitute for authentic relational accountability to Indigenous Peoples.

In his book *Research is ceremony: Indigenous research methods*, Shawn Wilson (2008) discusses relational accountability in research from an Indigenous perspective. From my understanding of this discussion, and from my current perspective after having completed this study, authentic relational accountability to Indigenous Peoples would have involved something like having an advisory board of Indigenous individuals, including Elders, with whom I would have existing personal relationships, who would be willing, able and available to provide guidance through all phases of the study. Their time would be compensated (as deemed relevant and appropriate by them). And because my relationships with them would predate the research study, and continue long after the study would be completed, I would be personally accountable to them for the outcomes of the study and the way it is presented and/or disseminated and to whom. The relationships would take precedence over the research collaboration.

3.1.2 Professional Experience

Experiences within the PT profession in Canada have also shaped the perspective that I bring to this study. From 2001 to 2004, I was a PT student in a Canadian PT program, where I experienced the process of learning about and developing a PT professional identity. I then worked as a PT clinician for 14 years in a variety of public healthcare settings in Québec and Ontario, including acute care, out-patient musculoskeletal care, in-patient stroke rehabilitation and out-patient pediatric rehabilitation. During these years I became very familiar with the "Western" model of healthcare and the role of PT within it.

I also worked for several years in two Indigenous communities in northern Canada, where I experienced my understanding of the PT profession, and Western healthcare generally, as being 'at odds' with the ways that I felt were appropriate to respond to the people that I met. Despite encountering many outstanding healthcare providers delivering quality care, I felt that the imposition of the Western model of healthcare on persons with a very different understanding of health and wellness was lacking in many ways and potentially causing harm. I spent a lot of time trying to determine how my professional knowledge and skills could be made useful from the perspective of the persons I was working with. I also spent a lot of clinical time on what I now understand to be processes of building relationships and trust. I did this because I could sense that my presence seemed to cause a sort of discomfort in others. At the time, I struggled

with spending paid clinical time on this because I did not understand the crucial importance of building relationships and trust – I felt as though it was just "socializing" and wasting time. I did not understand it to be an important part of my role as a PT.

I continued to spend time building relationships and trust, despite the ethical tensions I felt about it, because it seemed to be the only appropriate way to respond to the discomfort that my presence seemed to elicit in others. I did not understand why this discomfort was happening. I now understand it to be a result of my personal identity as a White settler, as I represent colonial domination and oppression and I have the power to continue this domination and oppression through my position of power as a healthcare provider. I now understand my mere presence to be form of violence. With this understanding, it is now abundantly clear to me why building relationships and trust, no matter the amount of time it takes, is absolutely imperative toward creating a safer space within PT practice.

The implication of my professional experience for this study, is that I have personally experienced ways that a physiotherapist can be unwittingly complicit with settler colonialism and cause harm to Indigenous Peoples. I have also personally experienced how it is possible for a Canadian PT program to train and graduate PT students to meet entry-to-practice competence standards while neglecting topics of colonialism, race, power, privilege and personal positionality. My personal impression is that the Canadian PT profession generally, in practice and education, lacks critical and anti-colonial perspectives and approaches and is unwittingly complicit with the colonial systems and structures which oppress Indigenous Peoples and thereby continues to reproduce and perpetuate Indigenous health inequity.

3.1.3 Personal Values, Motivations and Trepidations

I personally value social justice, anti-oppression advocacy and activism. As a member of the Canadian physiotherapy profession, I aim to support the profession in shifting toward a more critical (Gibson et al., 2010), reflexive and anti-oppressive approach in education and practice. My interest in undertaking this study is to initiate conversation within the profession nationally, particularly within the education community, around issues of colonialism, racism against Indigenous Peoples, and White supremacy generally.

Despite these values and motivations, my personal positionality as a White settler means that there is significant risk that this study will in fact unintentionally do the opposite: that it will reinforce colonialism, racism and White supremacy. I grappled with this early in the conception

of this study and my understanding of it evolved over time. I was unsure whether it was possible to mitigate this risk. I sought Indigenous perspectives for guidance, through literature, one-on-one conversations, seminars, conferences and courses. I discussed with critical non-Indigenous individuals. I struggled with classic symptoms of White fragility, especially guilt and shame, and seriously considered abandoning the study on many occasions. In the end, I chose to complete it. I hoped that a reflexive process throughout the study and having an Indigenous supervisory committee member for guidance would help me identify and mitigate ways that I might unwittingly reinforce oppressive systems and structures invisible to my privileged perspective. I now understand what was required to have been a process of authentic relational accountability (Wilson, 2008) to Indigenous physiotherapists and Indigenous Peoples generally. Authentic relational accountability requires authentic relationships. At the time, I was only just beginning to develop these types of relationships. This takes time and it was not possible for me to nurture these relationships while at the same time drawing on them for accountability.

Although I did not understand it in explicit terms at the time, on some level I did understand that the measures that I had put in place were insufficient to mitigate the risk of reinforcing colonialism, racism and White supremacy through this study. I felt it viscerally in my body and it caused fluctuating degrees of anxiety, fear, shame and guilt. These feelings remained with me through all phases of the study. My inability to understand and articulate them limited my ability to discuss them with others.

3.2 Theoretical Framework

In this sub-section, I describe how this study was initially grounded in transformative learning theory. Through the process of data collection and analysis, however, it became clear that there was an additional lens through which I was understanding and interpreting data, which I later understood to be best described as an anti-colonial lens.

3.2.1 Transformative Learning

Transformative learning is an adult learning theory developed by Mezirow (1997) to describe a process of "effecting change in a *frame of reference*"[4] (p. 5). A frame of reference is a structure of assumptions, primarily acquired through cultural assimilation and the influences of primary caregivers, through which we make sense of our experiences (Mezirow, 1997). Once a

[4] Emphasis in original text.

frame of reference is established, there is a strong tendency to "reject ideas that fail to fit our preconceptions, labeling those ideas as unworthy of consideration – aberrations, nonsense, irrelevant, weird, or mistaken" (Mezirow, 1997, p. 5). A frame of reference may be transformed through "*critical reflection on the assumptions* upon which our interpretations, beliefs, and habits of mind or points of view are based"[5] (Mezirow, 1997, p. 7). Transformative learning moves learners "toward a frame of mind that is more inclusive, discriminating, self-reflective, and integrative of experience" (Mezirow, 1997, p. 5).

Transformative learning theory was selected to scaffold this study because it recognizes that our socio-cultural environment and lived experiences shape the way that we understand the world and interface with it, and describes a learning process of critical reflexivity on assumptions which underpin our attitudes, beliefs and interpretations, to shift toward a frame of reference that is more inclusive, self-reflective and culturally safe. This is exactly the sort of transformative learning process which PT curricula may aim to stimulate in PT students and would be particularly useful in exploring topics such as power, privilege, racism, colonialism and White supremacy, and in fostering important reflexive processes such as cultural humility, cultural safety and critical allyship. During development of the study instrument and data collection and analysis, I aimed to capture evidence of PT curricula which foster transformative learning.

3.2.2 A Critical Anti-Colonial Lens

During the process of data collection and analysis, it became very evident that an additional lens was guiding my understanding and interpretation of data. This lens was informed by my interpretation of the perspectives of Indigenous scholars, educators and healthcare professionals that I had read, listened to, and spoken to on topics such as decolonization and indigenization of research, education and healthcare (Battiste et al., 2002; Blackstock, 2019; Eaker et al., 2019; FNIGC, n.d.; Gaudry & Lorenz, 2018; Gruenig, 2019; Loft, 2019; Moses et al., 2019; Phenix, 2019a, 2019b, 2019c; Richmond et al., 2018; Smith, 2012; Starblanket, 2019; Tuck & Yang, 2012; Vowel, 2016; Wilson, 2008). It was also informed by a growing understanding of the role of White fragility in upholding and maintaining colonialism, racism and White supremacy (DiAngelo, 2018).

[5] Idem.

A key element of this lens is the recognition that structural and systemic oppression against Indigenous Peoples is grounded in unequal power relations between Indigenous and non-Indigenous Peoples, knowledges and worldviews. Remedial action must therefore recognize and address these unequal power relations. In this study, I was particularly attentive during data collection and analysis to identifying power relations between Indigenous and non-Indigenous people, knowledges and worldviews, and reflecting these in the results and discussion.

I have also approached this study with a focus on identifying processes of change. Indigenous scholars have consistently stressed that no matter the terminology employed (reconciliation, decolonization, indigenization, etc.), the *process itself* must be commensurate with and led by Indigenous Peoples, knowledges and worldviews (Battiste et al., 2002; Gaudry & Lorenz, 2018; Smith, 2012; Tuck & Yang, 2012).

Finally, non-racialized non-Indigenous people tend to have a significant amount of difficulty understanding issues of racial oppression because they do not experience it directly (DiAngelo, 2018). White fragility is a barrier limiting the ability of White persons to acknowledge, understand and address racism, colonialism and White supremacy (DiAngelo, 2018). As a White person, I am on an ongoing journey to deepen my own understanding of racial oppression. I recognize that others may be at different places in their own journeys. In this study, I have been attentive to identify how this might be reflected in the data collected.

Taken together, these three elements (identifying power relations between Indigenous and non-Indigenous Peoples, knowledges and worldviews, identifying processes of change, and recognizing potential variance between participants in understanding of issues of colonialism, racism and White supremacy) may be understood as informed by a critical anti-colonial lens. In the context of a settler colonial nation, anti-colonialism aims to identify and disrupt settler colonialism (Ashcroft et al., 2013). This study however did not use a true anti-colonial approach as this would have required extensive relational and epistemic accountability to Indigenous Peoples (Carlson, 2017).

3.3 Study Design

This study used a cross-sectional survey design (Dillman et al., 2014). The data collection instrument had both closed- and open-ended questions and was administered by interview. An interview format was selected to administer the data collection instrument due to the exploratory nature of the study and the complexity of the topic, and its purpose was two-fold, according to

the question type (closed- or open-ended). For closed-ended questions, the interview format allowed me to help ensure that the questions were clear to participants and that data was collected in a manner as uniform and consistent between participants as possible. For open-ended questions, the interview format allowed me to hear participant responses and to ask additional questions for clarification or additional details. However, these were not typical in-depth qualitative interviews exploring lived experiences. Rather, participants reported on curricula and curricular development processes within their PT program.

3.4 Research Team

In this section I introduce the research team members and describe their contributions to the study and to the writing of this thesis.

3.4.1 Research Team Composition

The research team supporting this study brought important expertise in several domains. My supervisor, Dr. Aliki Thomas, is an occupational therapist with a doctorate in educational psychology. Her areas of research expertise include health professions education with a focus on the development of core professional competencies. Dr. Moni Fricke is a physiotherapist with 20 years of experience teaching Indigenous health content in the Department of Physical Therapy at the University of Manitoba, as well as clinical and research expertise in access to health services for Indigenous Peoples. As a member of my supervisory committee, she brought her knowledge of Indigenous health physiotherapy curricula. Dr. Janine Metallic is a Mi'gmaw faculty member in the Department of Integrated Studies in Education at McGill University. As a member of my supervisory committee, she brought her knowledge of Indigenous education and Indigenous methodologies, as well as the perspective of her own lived experience as an Indigenous person. Dr. Metallic unfortunately left the research team shortly after the study protocol presentation due to an unexpected leave of absence. She had been due to return after six months however her leave was then extended and the decision was made to seek a replacement.

Dr. Daniel Henhawk joined the research team as a supervisory committee member during the later stages of data analysis. He is a Mohawk faculty member in the Department of Kinesiology and Recreational Management at the University of Manitoba, with expertise in conceptualizations of leisure and socio-cultural study of sport and recreation. Dr. Henhawk strives to privilege Indigenous ways of knowing and being in the world, and his research areas

including Indigenous Land-Based Practices and Ways of Knowing and Being. He brought a critical Indigenous lens to this study.

3.4.2 Research Team Contributions

I completed all phases of this study, with the support of the research team, with the exception of seven interview recordings that were transcribed by a professional transcriptionist. Dr. Aliki Thomas was closely involved with all phases of the study, through regular individual meetings and email communications, and written feedback on the study protocol, application for ethics, data collection instrument, data analysis, results and thesis.

Dr. Moni Fricke was involved through all phases of the study, through supervisory committee meetings, attendance of the study protocol presentation, written feedback on the study protocol, application for ethics, data collection instrument and thesis, and individual meetings during study execution and write-up.

Dr. Janine Metallic was involved from the onset of the study until shortly after the study protocol presentation, through supervisory committee meetings, attendance of the study protocol presentation, written feedback on the study protocol, and one individual meeting. Shortly after the study protocol presentation and as I began developing the data collection instrument, she was unfortunately unexpectedly on leave of absence and no longer involved in this study.

Dr. Dan Henhawk became involved in this study during data collection and analysis, through attendance of the last supervisory committee meeting for discussion of the study results, individual meetings during data analysis and write-up, and written feedback on the thesis.

I wrote this thesis in its entirety. I received extensive written feedback from Dr. Thomas, on the contents of each chapter as they were written, with meetings for discussion as needed. I also received written feedback from Dr. Fricke and Dr. Henhawk in addition to some discussion through email communication. Dr. Thomas reviewed the final version of the thesis prior to submission.

3.5 Data Collection Instrument

Four primary literature areas informed questionnaire development: survey design literature (Dillman et al., 2014), HPE literature on health equity and cultural safety (Beavis et al., 2015; Hojjati et al., 2018; Te et al., 2019; TRC, 2015b), studies exploring other specific content in Canadian PT and OT programs (Laliberté et al., 2015; Murphy et al., 2020; Wideman et al.,

2019; Wittich et al., 2015), and literature discussing indigenization and decolonization of post-secondary education generally (Battiste et al., 2002; Gaudry & Lorenz, 2018; TRC, 2015b).

The questionnaire (see Appendix A for English version[6]) contained four sections. The first and second sections had 14 closed- and open-ended questions exploring specific curricular content within courses and the second and third sections had 11 open-ended questions exploring how and why this content was developed.

Section 1 aimed primarily to identify the specific curricular content areas of interest and the courses within which they were taught. The list of curricular content areas of interest was developed by drawing on HPE literature on health equity and cultural safety (Beavis et al., 2015; Hojjati et al., 2018; Te et al., 2019; TRC, 2015b), literature discussing indigenization and decolonization of post-secondary education generally (Battiste et al., 2002; Gaudry & Lorenz, 2018; TRC, 2015b), and my own foundation of knowledge and experience as a physiotherapist. This was complex because the general topic of Indigenous Peoples and how they fit into PT curricula may be understood differently by different people, and even similar understandings may fall under the umbrella of different specific topic areas, such as Indigenous health, cultural safety, power and privilege, or allyship. It was also complex due to potential variability in interpretation of some terms, such as those on the culture continuum (see Table 1). To allow participants to identify content areas in their own terms, all concepts and terms that seemed relevant were included, even when they might be understood to be overlapping or redundant (see Table 2). Participants were also invited to add to the list as needed. This list was then the "content related to Indigenous Peoples" referred to throughout the rest of the questionnaire.

Section 2 included questions about the content as it appeared in different courses, including which content areas were covered, number of teaching hours, targeted learning outcomes, teaching and assessment methods, and whether Indigenous spaces or Indigenous persons were involved in teaching.

Section 3 contained open-ended questions aimed at eliciting information about how the content identified in section 2 was developed, including barriers and facilitators and the extent to which Indigenous Peoples and their communities were involved in the process.

Section 4 contained open-ended questions about what prompted the development of the content identified in section 2.

[6] French version is available upon request (contact: lisa.arcobelli@mail.mcgill.ca).

Table 2. *Curricular content areas listed in the study data collection instrument as potentially relevant to the relationship between Canadians and Indigenous Peoples*

Access to Services	Indigenous Services Canada
	Jordan's Principle, 2016
	Jurisdictional issues surrounding access to healthcare services
	Non-Insured Health Benefits (NIHB)
Colonial History	Assimilation and cultural genocide in Canada
	Colonial history of Canada
	Indian Act of Canada, 1876
	Indian Residential Schools
	Indigenous health inequity
	Indigenous resilience
	Protective defiance
	Royal Commission on Aboriginal Peoples (RCAP), 1996
	Sixties Scoop
	Truth and Reconciliation Commission of Canada (TRC), 2015
	United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), 2007
Foundational Concepts	Anti-oppression
	Anti-racism
	Bias, discrimination and prejudice (explicit and implicit)
	Colonialism/postcolonialism
	Conflict resolution
	Human rights
	Power, privilege and oppression
	Reflection about one's culture, attitudes and beliefs
	Social determinants of health
	Treaty rights
Indigenous Epistemologies	Indigenous worldviews/perspectives & ways of knowing
	Health priorities of local Indigenous communities
	Traditional healing/medicine
	Two-Eyed Seeing
Practice approaches	Cultural awareness
	Cultural competence
	Cultural humility
	Cultural responsiveness
	Cultural safety
	Indigenous capacity building
	Indigenous community development
	Professional allyship with Indigenous Peoples
	Trauma-informed care

I first developed the questionnaire in English. This first iteration was reviewed by four content experts and three methodological experts for face validity (Holden, 2010) and modified accordingly. I then used it to conduct pilot interviews in English with two OT faculty members familiar with the content area, after which it was modified further. OT faculty were selected for piloting because OT programs share similarities and overlapping curricula with PT programs, and to avoid drawing on the small participant response pool.

I then translated the questionnaire into French, with translation support from francophone colleagues. This first French version was back translated into English by a fully bilingual colleague, after which minor wording modifications were made to both the English and French versions of the questionnaire for clarity and consistency in meaning between languages. I used the French version to conduct pilot interviews in French with three OT faculty members in different universities familiar with the content area, resulting in minor wording modifications. I conducted the final pilot interview in English with Dr. Fricke, my supervisory committee member, who is also a Canadian PT program faculty member, and this data was included in the study data collection. The final pilot testing did not result in any modification to the questionnaire.

3.6 Participants and Recruitment

Participants in this study were Canadian PT program faculty members. I aimed to recruit one participant from each program (n=15), and for this person to be the one most knowledgeable about the curricular content area of interest and therefore in a position to provide the most complete information. I sent a recruitment email to each PT program director, introducing the study and asking them to identify the person in their program best suited to participate in the study (see Appendices B and C for first recruitment emails in English and French, respectively). Directors of English programs were addressed in English and directors of French programs in French. PT program director email addresses were obtained from the university websites, except for one which was not available on the website but was obtained by calling the program secretary. When a potential participant was identified, I sent them a recruitment email to invite them to participate in the study (see Appendix D and E for second recruitment emails in English and French, respectively).

I sent a second recruitment email after two weeks to program directors that did not respond, (n=5), and a third recruitment email after another six weeks (n=4). Recruitment was

complicated by the COVID-19 global pandemic, which caused universities across the country to abruptly close their doors for a few weeks and then transition all instruction online. This began an unexpectedly very busy time for all university faculty members, rendering availability very challenging. This occurred three weeks following initiation of recruitment. For this reason, in the case of one PT program whose director had not responded to the third recruitment email, I sent emails directly to two potential participants identified through the university website.

Once participants agreed to participate, I sent them the study consent form by email, a link providing access to the online questionnaire, and potential dates to schedule the interview. Participants were encouraged to review the questionnaire online prior to the interview to become familiar with the information requested and potentially consult with colleagues and/or curricular documents to collect relevant information. They were invited to enter information into the online questionnaire ahead of the interview, in whole or in part, or simply share the information during the interview. They were also informed that they may share the link to the questionnaire with other faculty members to enter information about courses they teach if this would be helpful. All participants completed the consent form prior to participating in the study (see Appendices F and G for consent forms in English and French, respectively).

3.7 Data Collection

Data were collected through questionnaire-based interviews. The questionnaire was accessible to participants in advance of the interview to allow them to review the information requested and potentially consult with colleagues and/or curricular documents to collect relevant information. The questionnaire closed- and open-ended questions prompted dialogue and subsequent additional questions in alignment with the overarching aim of the study. The REDCap online platform was used because it allows for modification of the questionnaire structure according to participant selected options.

Data collection was complicated by the temporary closure of universities across Canada, due to the COVID-19 global pandemic, which occurred just a few days before data collection interviews were scheduled to begin. As a result, nearly half of the total interviews (n=6), already scheduled during the first two weeks of data collection, were postponed. Rescheduling thereafter, as well as scheduling those participants not yet scheduled, was challenging as participants had significantly reduced availability for an extended period. As a result, the data collection period

was delayed and extended over five months. Also, one participant who agreed to participate completed the questionnaire online but later declined the interview due to lack of time.

Interviews were completed in English or French, according to participant preference, and lasted between 45 and 180 minutes. Interviews occurred via Zoom © video conference. This allowed me to share my computer screen virtually with the participant while accessing the questionnaire online, thereby allowing the participant to see the information being entered according their responses to questions and to verify that it was accurate. It also allowed the participant to share blocks of text via the Zoom © chat function, such as course descriptions and learning outcomes, which I then copy-pasted directly into the questionnaire. I also took hand-written notes during the interview, to keep track of conversation points and to help calculate total teaching hours. Interviews were both audio- and video-recorded (except in one case in which the video recording was not retrievable but the audio recording was retrained). Verbal consent for recording was obtained at the start of each interview.

The completeness of data collection was impacted by limitations in the availability of participant time. In some cases, participants initially agreed to participate in the study but then later expressed having insufficient time to collect the information requested or even consult the questionnaire prior to the interview. In these cases, in the interest of optimizing PT program representation, participants were encouraged to participate in the interview even without preparation, to share whatever information was easily accessible to them.

After several interviews, I decided to focus on two primary representations of teaching hours: total number of teaching hours in the curriculum for all content areas from the list in the questionnaire, and total number of teaching hours for each content area individually. I also decided, for consistency, that content areas included in a course lecture for an unknown amount of time would be considered to have been part of the entire lecture time, except when otherwise specified.

In most cases, the first few questions in the questionnaire, which focused on identifying courses within the program containing the content areas of interest and distinguishing existing content from planned content, prompted discussion of mechanisms and processes of curricular planning and development, often answering open-ended questions located in the third and fourth sections of the questionnaire. I encouraged this type of spontaneous reversal of order of discussion topics, so long as it remained within the overall scope of the study, to allow

participants to share information as it felt natural for them to do so. Throughout the interview I also requested clarification for aspects which were unclear and verified with participants my understanding of ideas for accuracy.

After each interview, I wrote field notes to describe how I felt the interview went, including my performance as an interviewer, how the participant responded to me, and general impressions of the data that was collected and how it might fit into answering the study research questions. I also was attentive to feelings of discomfort, taking time to reflect and try to unpack them, and impressions about the ways in which my personal and professional positionality was influencing data collection. The field notes from one interview were unfortunately lost (not the same interview for which the video recording was not retrievable).

3.8 Data Analysis

Each participant was assigned an alpha-numeric code as anonymized identifier. Data collected from each participant were de-identified and labelled using only this alpha-numeric code to ensure participant and PT program anonymity during data analysis.

Following each interview, I extracted the data from the online questionnaire into an individual data extraction form. From this form, numerical and categorical information from the first and second sections were entered into a master data collection form, from which frequencies, ranges and averages were calculated.

Each interview recording was transcribed verbatim – I transcribed half (n=7) and the other half was transcribed by a professional transcriptionist. During transcription, I wrote memos in the transcript margins outlining initial thoughts and ideas about the interview and potential units of analysis. For those transcribed by the professional transcriptionist, I reviewed the transcript while listening to the recording, revising for accuracy and again writing memos in the transcript margins outlining initial thoughts and ideas about the interview and potential units of analysis. All identifying information in the transcripts was anonymized. In some cases, I reviewed the transcript to verify or clarify numerical and/or categorical information in the individual data extraction form. Each transcript was then revised a second time, to remove those portions which pertained purely to the numerical and categorical information collected in the first and second sections of the questionnaire. In the case of the participant who completed the questionnaire but did not complete the interview, the text responses in the third and fourth

sections of the questionnaire were compiled and treated as a 'transcript' for the purposes of data analysis.

The revised transcripts were analyzed using thematic analysis as described by Braun & Clarke (2006). The first step of familiarizing myself with the data began during data collection, as I completed each of the interviews and after each interview wrote down initial thoughts and ideas as field notes. This process continued during interview transcription and transcript review, during which I also wrote initial thoughts and ideas as memos in the margins of each transcript.

The second step was to generate initial codes. This process began during data collection, after six of the interviews had been completed. To do this, I first reviewed the research questions that I aimed to answer through the thematic analysis: (a) How were the curricula developed, how have they evolved over time, and what have been the barriers and facilitators in this process? and (b) What has shaped the development and evolution of the curricula? I then re-read the first transcript, keeping these questions in mind, highlighting meaningful segments of relevance to these questions, and summarizing these segments in a first column beside the transcript text. I then went through the transcript again, reviewing the summaries and from them creating in a second column of initial codes: the most basic elements of the raw data that were meaningful in relation to one of the research questions (Braun & Clarke, 2006). I listed the initial codes on a separate document as they were created, progressively organizing them and rewording some for relevance, accuracy, specificity or generalizability. As an initial deductive component of data analysis, initial codes were organized into 4 main categories: development processes, barriers, facilitators, and drivers. I then reviewed the list of codes, organizing them into a hierarchy tree, rewording many, collapsing some together and removing those not relevant to either of the research questions. This hierarchy tree of codes became the first draft of the codebook. Codes remained as close to the wording and literal meaning of the transcript/interview as possible – there was minimal if any inference.

I then reviewed the transcript again, rewording initial codes according to their counterpart in the initial codebook, and ensuring that each code was still true to the transcript meaningful segment it represented. This involved minor rewording and modifications of codes and initial codebook hierarchy and organization. I then reviewed the transcript a third time, again ensuring consistency between initial codes and the codebook, and that all codes remained true to the transcript meaningful segment. No further modifications were required at this stage.

I repeated this process of reading, highlighting meaningful segments, writing summaries and generating initial codes, with the second transcript. Many codes were added to the initial codebook and some existing codes were slightly reworded and these were harmonized with the first transcript. During this process of coding, I also wrote extensive memos in the margins of the transcript, describing initial thoughts and ideas about potential themes as well as my own process of reflexivity about the ways in which my positionality and perspective were influencing data analysis.

My supervisor Dr. Thomas separately read the first and second transcript in depth, highlighting meaningful segments, and then writing summaries for the first transcript. We then met to discuss the two transcripts/interviews and the initial codebook, as a measure of ensuring trustworthiness of the initial codes and initial codebook (Shenton, 2004). Dr. Thomas confirmed that the codes resonated with the content of both transcripts and that all were low inference, except for one which was then modified to be lower inference (keeping the higher inference idea in the margin as a memo). I then reviewed the transcripts that Dr. Thomas had highlighted and written segment summaries for, and extensively revised the existing codes and codebook, creating many more codes, using greater granularity, and also creating more than one code from the same segment summary when it fit into more than one of the four main categories in the codebook.

I then coded three more transcripts, adding new codes to the codebook but generally leaving existing codes unchanged. Dr. Thomas also separately read the same three transcripts: two in-depth and one skimmed. She reviewed my coding of these transcripts and found good alignment between the transcript text, segment summaries and codes. She also reviewed the codebook. We then met and discussed organization of the codebook and preliminary thoughts on themes. Following this I revised the codebook categories and Dr. Thomas agreed with them. I met again with Dr. Thomas after coding another four transcripts (total nine to date), to discuss the codebook and tentative preliminary themes, and then coded the remaining four transcripts. The last (thirteenth) interview was completed, transcribed, reviewed and coded at a later date (after initial theme development) due to participant unavailability earlier.

The first five transcripts used to develop the codebook were in English. To analyze the French transcripts, I wrote the transcript segment summaries in French, and then translated their meaning into corresponding codes in English.

The third step of thematic analysis is to collate codes into potential themes and gather all data relevant to each potential theme. In undertaking this process (and through the remainder of data analysis), I shifted my focus from the specific research questions (as described above) to the overarching aim of this study, which was to explore how Canadian PT curricula are changing in relation to Indigenous Peoples and their communities. I also shifted my focus away from the initial deductive organization of the codebook to a more global view of the data in its entirety and from the perspective of indigenization and decolonization of postsecondary education (Battiste et al., 2002; Gaudry & Lorenz, 2018). Informed by a critical anti-colonial approach, I was particularly interested in exploring and bringing to light power relations between Indigenous and settler people and perspectives, elements which influence and inform process, and situations or examples of White fragility. I initially created six themes, assigning each code from the codebook to a theme. Codes within each theme were then further separated into subthemes.

The fourth step of thematic analysis is to review the themes and subthemes in relation to the transcript meaningful segments and the entire data set. This was a lengthy process that involved extensive revision of themes and subthemes to ensure that data within each theme cohered meaningfully and that themes and subthemes were identifiably distinct from each other. To assist in this process, I created a concept map of the themes and subthemes, with additional lines connecting subthemes related to each other.

The fifth step of thematic analysis is to define and name the themes and subthemes. This involved further substantive revision of the themes and subthemes, particularly in terms of relevance to the overarching aim of the study and from a critical anti-colonial perspective. These preliminary theme and subtheme names and descriptions were presented to my supervisory committee for discussion and feedback, with subsequent revision. I then returned to the data to select a pool of transcript extract options for each subtheme, translating French transcript extracts into English.

The theme and subtheme names and descriptions were then sent to participants to request their feedback as to the extent to which they felt their perspectives were represented, as a member checking strategy. Member checking is a data analysis strategy to ensure credibility, also referred to as internal validity, of emerging theories and inferences (Shenton, 2004). The theme and subtheme names and descriptions were also translated into French, by a professional translator, which I revised for consistency in meaning. Participants were sent the themes and

subthemes in English or French according to their language of preference. All 14 participants were invited to provide feedback, include the last one whose interview had not yet been analyzed, because the data collected in the interview was provisionally found to be consistent with existing themes. Six participants responded with feedback, generally confirming that their perspectives were represented, including the participant who had completed the questionnaire but declined the interview. Some of the feedback was considerably detailed and used as data to further support the themes. One participant critiqued that themes and subthemes did not sufficiently expose important colonial power relations and imbalances - this informed and supported a more critical anti-colonial approach in the process of revising theme and subtheme names and descriptions.

The sixth and final step of thematic analysis is to produce the report, which should be an analytic narrative which compellingly tells the story of the study data in relation to the overarching aim of the study. This includes the selection of vivid and compelling transcript extracts. In this study, this step was particularly informed by a critical anti-colonial approach. Also, transcript extracts from interviews conducted in French were translated into English.

Through the process of data collection and analysis, I noticed that many participants spontaneously discussed their thoughts and perspectives about how PT curricula could or should change in relation to Indigenous Peoples and their communities, and correlated these thoughts and perspectives with existing or planned curricula within their program of affiliation. I noticed that these thoughts and perspectives fell into a few broad categories with surprising similarity between those in the same category. I decided to include these general impressions as an additional category of results.

3.9 Reflexivity During Study Execution

In this section, I discuss my personal reflexive process during data collection and during data analysis.

3.9.1 Reflexivity During Data Collection

The starkest realization that I had during data collection was about the extent to which I was influencing the data I was collecting, despite my best efforts not to. I had not expected this – I had thought that I could be neutral and objective and simply collect what participants shared. But it quickly became very clear to me that no matter how neutral and objective I tried to appear, participants made assumptions about my personal identity, perspectives and intentions, whether

articulated or not, and these influenced and directed the information that they chose to share with me. Examples of this are provided in subsequent paragraphs of this section. My social identity was co-creating data in ways that were outside of my direct control. Although I can only assume that this was also occurring in ways that were not apparent to me, I will describe here those which I did identify.

I noticed that many participants seemed to defer to me as "expert" on the study topic. This was most apparent in relation to the questionnaire list of content areas – many participants seemed to defer to this list as comprehensive in relation to content which *should* be included in PT curricula in relation to Indigenous Peoples. One participant even asked for a copy of the list, as a support to curricular development in their program. I realized that the list of content areas I had tentatively identified had become, through use in the study, a statement about the value and importance of these specific content areas, and in fact even an epistemological statement about how to think about curricula in relation to Indigenous Peoples. I felt deeply uncomfortable about this, because I am not an expert on this topic and because the perspective that I bring originates in White settler colonial culture. It was the beginning of my realization of the extent to which my personal identity and understanding was influencing the results of this study in ways that could not be corrected or even accounted for through consultation with an Indigenous supervisory committee member as described earlier. I further understood that the process of data collection itself, even before generation of results, was an intervention within the PT education community that was equally informed by the White settler colonial perspective that I bring. For example, by asking about numbers of teaching hours, this was implying that this might be an appropriate way to measure how curricula may be changing in relation to Indigenous Peoples, whereas in fact I was realizing that this was likely a very colonized way of looking at things.

I also noticed that participants seemed to have different understandings and interpretations of the topic areas of interest in this study and that this seemed to influence what they shared and how they shared it, in at least two specific ways. The first was largely related to understanding how curricula could or should change in relation to Indigenous Peoples. I noticed that participants focused on those elements which they felt or assumed were most important – either to demonstrate how their program was doing well in that element, at times somewhat proudly, or to articulate that their program was lacking, at times seemingly apologetically. However, it seemed to me that potential differences in what was considered important to share

resulted in heterogeneity in the types of information shared. For example, one participant focused on the lack of program and university consultation with local Indigenous communities, downplaying the involvement of the university Indigenous resource center employees since this was assumed to be insufficient, whereas another participant focused on the absence of any Indigenous perspective in curricular development at all from any source.

The other manner in which I noticed participant understanding and interpretation to influence data collection was in circumstances where something seemed so obvious to the participant that they did not explain what they meant by it, even when I asked for clarification. For example, a participant would say curriculum was developed "because of the TRC", as if this spoke for itself. However, referring to the TRC could imply a number of things, such as the colonial history of assimilation and cultural genocide, or the fact that the TRC reported on these things and therefore brought it to greater public awareness, or even that the greater public awareness prompted universities to develop social accountability mandates which required programs to develop specific types of curricula. By saying only "because of the TRC", it was not clear which of these things, or potentially others, they were referring to. In some cases, I was not able to obtain clarification, and this resulted in data collection gaps – the absence or lack of representation of important elements left unarticulated – as well as data ambiguity.

I realized late in the data collection process, during the last interview, that although I had been explicit about my social identity in the research protocol, and had planned to discuss it in this thesis, I never did so with participants during the interviews. This was an oversight, but it reflects the evolution of my understanding of the impact of my social identity on every stage of the research process – that I had thought that this would only come in at the moment of discussion of results; that I had not realized that I would be co-creating data.

The reflection on my role in co-creating data, through the process of data collection (and also as I concomitantly began data analysis), led me to a deeper understanding of the risks inherent in conducting this study as a White settler without relational accountability to Indigenous PTs and Indigenous Peoples in general – risks which cannot be mitigated by having an Indigenous supervisory committee member. My White settler perspective is imbued within the data itself and thereby the study risks reinforcing White settler colonial narratives, further upholding settler colonialism and White supremacy.

Furthermore, beginning during data collection and continuing through data analysis, I became increasingly aware that the way these data are collected, aggregated and reflected back to the world, is a political statement. There is no neutral position – it either upholds settler colonialism and White supremacy or disrupts it. The weight of this responsibility was (and is) tremendous – I felt decidedly unfit to wield such power. I had no idea how I would move forward with writing this thesis. I understood at an entirely new level, why undertaking a study related to Indigenous Peoples, as a White settler, requires authentic relational and epistemological accountability to Indigenous Peoples.

3.9.2 Reflexivity During Data Analysis

The starkest realization that I had during data analysis was about the extent to which my own interpretation of the raw data was a strong directive force in producing results. I had not expected data analysis to be such an interpretive process. It quickly became very clear to me, however, that there were specific perspectives and values that were directing my understanding and interpretation of data, and therefore the results. Similar to the process of data collection, I understood myself to be a co-creator of results. This was true for both the quantitative and qualitative data, and it facilitated a much deeper understanding of the importance of being explicit about personal positionality. It also prompted me to attempt to articulate my understanding of the lens through which I was interpreting the data.

My influence in co-creating results of the quantitative data was primarily in categorizing hours of curricular content into the content area categories within the questionnaire in cases where participants did not do so. This was particularly uncomfortable when participants were sharing their interpretations of course lectures given by Indigenous educators – I did not feel right, as a non-Indigenous White person, interpreting and categorizing the work of Indigenous educators without their collaboration or assistance.

During the process of thematic analysis, there were specific portions of data which I felt could be interpreted in at least two different ways, and for which I was very intentional about my choice of interpretation. I verified these cases with my supervisor and supervisory committee members, but the understanding of the interpretive power that I wielded through my perspective led to several realizations. On one hand, I understood much better the value and importance of reflexivity and reflexive commentary as a measure of dependability of qualitative research results. Dependability refers to the extent to which the study could be repeated to generate the

same results (Shenton, 2004). Being able to track the line of thinking of the researcher in the process of data analysis allows for the possibility that this could be repeated. In addition, identifying that my interpretive choices were intentional in very specific ways, I felt a need to articulate this in terms of a theoretical framework, even though it had not been identified as such at the onset of the study. This has been described in an earlier section of this chapter. And finally, I also better understood the value and importance of explicitly articulating personal positionality since this can and does influence my interpretation of data. Ultimately it influences study results in ways which I will not always be aware of. This has also been described in an earlier section of this chapter.

Similar again to my reflection during data collection, which certainly was occurring concomitantly, I realized that the reporting of the results of this study is a political statement and that there is no neutral position. At the time, the weight of this responsibility, to either uphold or disrupt settler colonialism and White supremacy, felt very heavy and beyond my capacity to manage. I felt shame for having undertaken this study without authentic relational and epistemological accountability to Indigenous Peoples. I feared the consequences of challenging settler colonialism and White supremacy in an academic community in which I have existing professional relationships and with which I hoped to continue to be engaged. I committed to find a way forward despite having inadequately begun.

3.10 Ethical Considerations

This study received ethics approval on February 5, 2020, from the Institutional Review Board of McGill University's Faculty of Medicine, Review Number A02-E08-20B / (20-02-12). Informed written consent was obtained from each participant prior to participation in the study, including the opportunity to ask questions both prior to the interview as well as at the beginning of the interview before starting (see Appendices F and G for consent form in English and French, respectively).

Participant and PT program anonymity in presenting aggregated results was particularly important in this study because of the sensitive nature of the topic. The commitment to present data in an aggregated format, where individual PT programs are not identified, was explicitly articulated in the participant consent form. Even then, some participants expressed concern about this, during the data collection interview, and proceeded only after I reassured them of my commitment to present results only in an aggregated format where individual PT programs were

not identified. In the transition from data collection to data analysis, data collected from each participant were de-identified and labelled using only an alpha-numeric code. The alpha-numeric codes were stored in a separate electronic file from the data files. Data were analyzed and presented in the results in an aggregated and anonymized formate where individual PT programs were not identified.

The PT entry-level education community in Canada, with only 15 PT programs, is relatively small despite being considerably geographically distanced. PT program faculty members often have professional relationships with faculty in other PT programs, particularly program directors who come together formally as part of CCPUP. As a result, there is a general awareness within the PT entry-level education community of what is going on in most programs. For this reason, it is likely that despite the data in this thesis being presented in an aggregated and anonymized format, members of the PT education community (and potentially other professional education programs closely related, such as OT) may be able to guess which programs are represented in various portions of the aggregated data. This may be particularly true for the thematic representation of the data collected through open-ended questions, especially through direct quotes. While it would be impossible to prevent the reader from such speculation, it becomes more problematic when the aggregated data contains a large number of direct quotes and a relatively small number of participants/programs. If a particular participant quote stands out as likely to have originated from a particular program, and the participant is identified by numerical identifier (albeit anonymized), then the reader would be able to ascertain that all other quotes originating from the same participant are also representing the same program. For this reason, participant numerical identifiers were removed from the quotes presented in the theme descriptions.

Chapter 4: Results

In this chapter, I present the results of this study, in three sections: (1) Portrait of Current and Planned Curricula; (2) Thematic Analysis of Curricular Change Processes; and (3) Perspectives on How Curricula *Should* be Changing.

Fourteen PT faculty members participated in this study, representing 14 of the 15 PT programs in Canada - one PT program director did not respond to recruitment emails. I completed a total of 13 interviews, with one interview extending over two interview dates due to running over time. One participant completed the questionnaire online and later declined the interview due to lack of time. Three out of the 13 interview participants consulted with multiple colleagues to complete the questionnaire in advance of the interview, three reviewed and partially completed the questionnaire on their own before the interview, with one consulting a colleague afterward, and seven did not consult the questionnaire at all prior to the interview. In the case of one of the participants who had completed the questionnaire collaboratively with colleagues prior to the interview, the data had unfortunately not saved on the online platform and the participant simply provided as much information during the interview as could be remembered from the group collaboration. Due to limitations in time availability, not all participants provided all of the information requested. The following data sets do not include all 14 participating programs: number of teaching hours per content area (n=12 programs included), course descriptions (n=11 programs included), and learning outcomes (n=10 programs included).

4.1 Portrait of Current and Planned Curricula

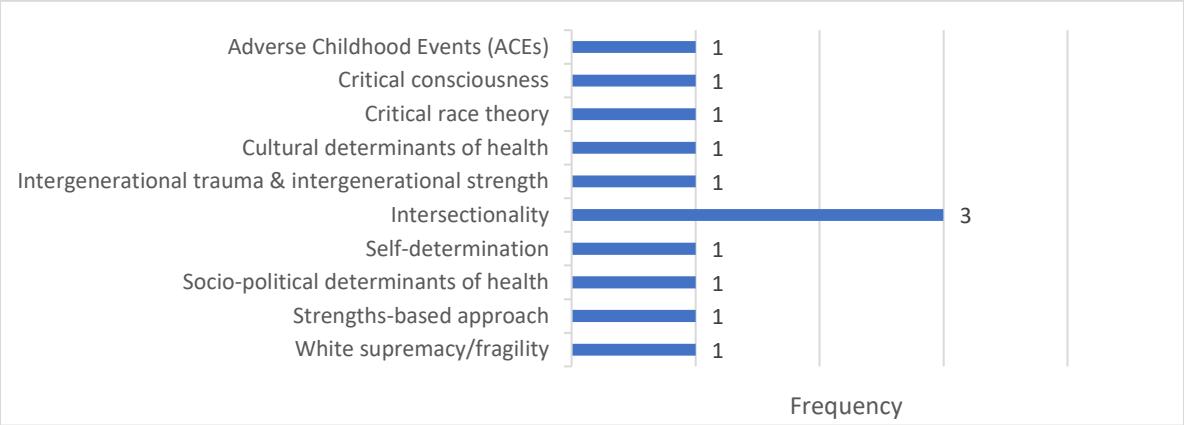
In this section, I present a portrait of current and planned PT curricula with the following sub-sections: curricular content, curricular mapping, curricular planning, course descriptions, learning outcomes, Indigenous educators, educational spaces, teaching methods, and assessment methods.

4.1.1 Curricular Content

To identify curricular content areas of interest in this study, a list of 38 content areas potentially relevant to the relationship between Canadians and Indigenous Peoples was provided in the first section of the data collection instrument (see Table 2). These were separated into five categories: *Access to Services*, *Colonial History*, *Foundational Concepts*, *Indigenous Epistemologies*, and *Practice Approaches*. Participants were invited to add content areas that were included in the curriculum of their program but which they felt were missing from the list.

Ten content areas were added (see Figure 2), all of which were identified only once, with the exception of *Intersectionality*, which was identified three times.

Figure 2. *Curricular content areas added by participants as relevant to the relationship between Canadians and Indigenous Peoples and included in the curricular content of their PT program*

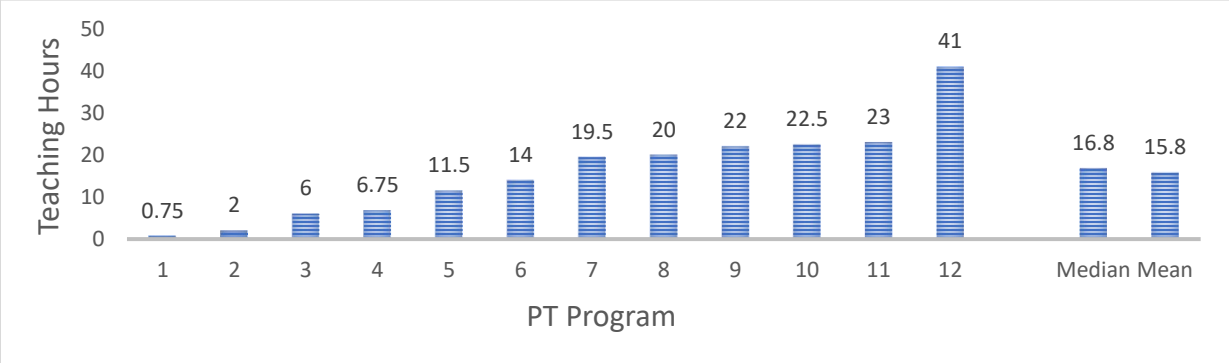


Teaching hours considered in this study included only in-class hours mandatory for all PT students in the program and occurring during the 2019-2020 academic year. It included scheduled content which might have been interrupted by the COVID-19 global pandemic. It did not include planned content still under development where the development process was interrupted by the COVID-19 global pandemic or time spent outside of class on readings, watching videos, assignments, projects, group collaboration, or clinical placements.

Determining the number of teaching hours dedicated to specific content areas, in a consistent manner between participants, was a challenge encountered during data collection. This was due in part to the overlapping nature and variety in definition of many of the content areas and because multiple content areas may be covered at the same time, and in part to the difficulty in estimating specific amounts of time per content area, particularly when lectures were taught by persons other than the participant. In one case, the participant provided a detailed account of lecture content and left it to me to determine which content areas this constituted from the list in the questionnaire. In other cases, it was a collaborative effort between myself and the participant, or had already been completed individually or collaboratively in advance of the interview. Many participants had not been able to consult with colleagues due to lack of time and therefore provided their best estimate but were uncertain about accuracy and completeness. Two participants declined to attempt to estimate amounts of teaching time.

The total number of teaching hours are presented in Figure 3 for all but 2 programs (two participants declined to estimate teaching hours). Teaching hours ranged from 0.75 to 41 hours, with a median of 16.8 hours and a mean of 15.8 hours, and nearly half of PT programs (n=5) teaching between 19.5 and 23 hours.

Figure 3. *Teaching hours of all identified content areas per PT program*



The range of teaching hours per content area is presented in Table 3. The first column illustrates the number of PT programs teaching each content area (of 14 PT programs). The second column illustrates the range of teaching hours dedicated to each content area when occurring (of 12 PT programs as two participants declined to estimate teaching hours), indicating minimum, maximum, median and mean. The content areas taught by the largest number of PT programs were *Indigenous health inequity* (n=13 programs), *Cultural competence* (n=11), *Reflections about one's culture, attitudes and beliefs* (n=11), *Social determinants of health* (n=11), *Colonial history of Canada* (n=10) and *Indigenous worldviews/perspectives & ways of knowing* (n=10). The content areas with the largest maximum number of teaching hours were *Indigenous health inequity* (n=16 hours), *Social determinants of health* (n=15), *Cultural awareness* (n=11.5), *Reflections about one's culture, attitudes and beliefs* (n=11.5), and *Colonialism/postcolonialism* (n=10).

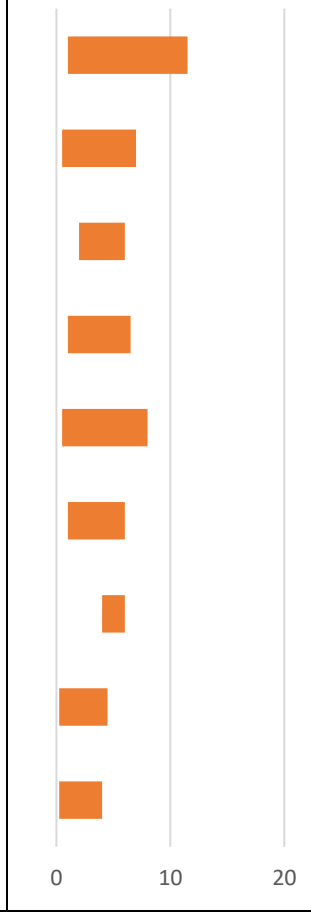
The number of mandatory courses within which the identified curricular content was spread is illustrated in Figure 4. In 71% of PT programs (n=10), it was distributed across 1-3 courses. In two PT programs, it was intentionally threaded through a larger number of courses – in one case 5 courses and in another case all courses within the PT program.

Table 3. *Teaching hours per content area*

CONTENT AREA		No. of PT Programs	Range of Hours	Min.	Max.	Med.	Mn.
Access to Services	Indigenous Services Canada	2		1.00	2.00	1.50	1.50
	Jordan's Principle	3		0.50	1.00	0.50	0.67
	Jurisdictional issues surrounding access to healthcare services	4		0.25	6.00	1.00	2.06
	Non-Insured Health Benefits	3		0.50	1.00	1.00	0.83
Colonial History	Assimilation and cultural genocide in Canada	7		2.00	5.00	2.50	3.10
	Colonial history of Canada	10		0.50	6.75	3.50	3.41
	Indian Act of Canada	6		2.00	5.00	3.25	3.38
	Indian Residential Schools	9		0.75	5.00	2.00	2.46
	Indigenous health inequity	13		0.75	16.00	5.50	6.34
	Indigenous resilience	7		0.25	6.00	4.00	3.45
	Protective defiance	2		1.00	1.50	1.25	1.25
	Royal Commission on Aboriginal Peoples	4		3.00	3.00	3.00	3.00
	Sixties Scoop	6		2.00	4.00	2.75	2.88
	Truth and Reconciliation Commission of Canada	8		1.00	3.25	2.50	2.38
	United Nations Declaration on the Rights of Indigenous Peoples	5	0 10 20	2.00	3.00	3.00	2.67

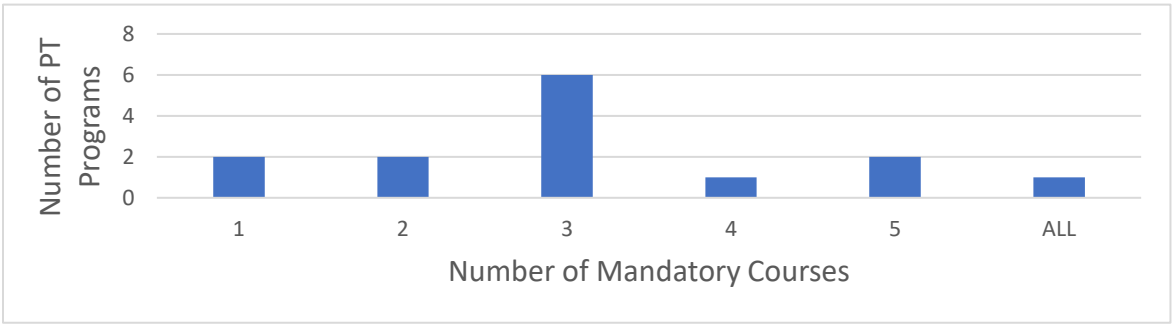
CONTENT AREA		No. of PT Programs	Range of Hours	Min.	Max.	Med.	Mn.
Foundational Concepts	Anti-oppression	4		1.50	6.00	3.50	3.67
	Anti-racism	6		2.00	5.00	4.25	3.83
	Bias, discrimination and prejudice (explicit and implicit)	10		1.00	8.00	4.50	4.42
	Colonialism/ postcolonialism	9		1.00	10.00	3.00	4.21
	Conflict resolution	6		1.00	5.00	2.50	2.83
	Human rights	4		1.00	3.00	2.00	2.00
	Power, privilege and oppression	8		2.00	8.00	4.50	4.43
	Reflection about one's culture, attitudes and beliefs	12		1.00	11.50	4.00	4.75
	Social determinants of health	11		2.00	15.00	7.00	6.72
	Treaty rights	5		2.00	3.00	3.00	2.67
Indigenous Epistemologies	Indigenous worldviews/ perspectives & ways of knowing	10		1.00	8.00	3.25	3.44
	Health priorities of local Indigenous communities	4		1.00	5.00	1.50	2.25
	Traditional healing/medicine	7		0.50	2.00	1.00	1.25
	Two-Eyed Seeing	1		1.00	1.00	1.00	1.00

CONTENT AREA		No. of PT Programs	Range of Hours	Min.	Max.	Med.	Mn.
Practice Approaches	Cultural awareness	9		1.00	11.50	4.00	4.33
	Cultural competence	12		0.50	7.00	4.00	3.95
	Cultural humility	8		2.00	6.00	4.00	3.75
	Cultural responsiveness	5		1.00	6.50	4.50	3.60
	Cultural safety	9		0.50	8.00	3.25	3.25
	Indigenous capacity building	3		1.00	6.00	4.00	3.67
	Indigenous community Development	4		4.00	6.00	4.50	4.75
	Professional allyship with Indigenous Peoples	6		0.25	4.50	4.00	2.95
	Trauma-informed care	7		0.25	4.00	2.00	2.04



No. of PT Programs: Number of PT programs teaching each content area (total 14 PT programs)
Range of Hours: Range of teaching hours per content area (total 12 PT programs)
Min.: Range of teaching hours minimum
Max.: Range of teaching hours maximum
Med.: Range of teaching hours median
Mn.: Range of teaching hours mean

Figure 4. *Number of mandatory courses within which curricular content was spread*



Content was also variably spread through the program academic years. Among the two-year master's PT programs, 70% (n=7) included the content in both the first and second years, 20% (n=2) in the first year only, and 10% (n=1) in the second year only. Among the bachelor-masters combined PT programs, 50% (n=2) included the content in the first and second year, 25% (n=1) in the first and fourth year, and 25% (n=1) in the fourth year only.

Most of this mandatory content had been added into PT curricula during the past two to five years, often explicitly in response to the Truth and Reconciliation Calls to Action (TRC, 2015b). In two programs, a small portion of it was started 20 years ago and has evolved over time. In five programs, much of it had been added in the past 1-2 years.

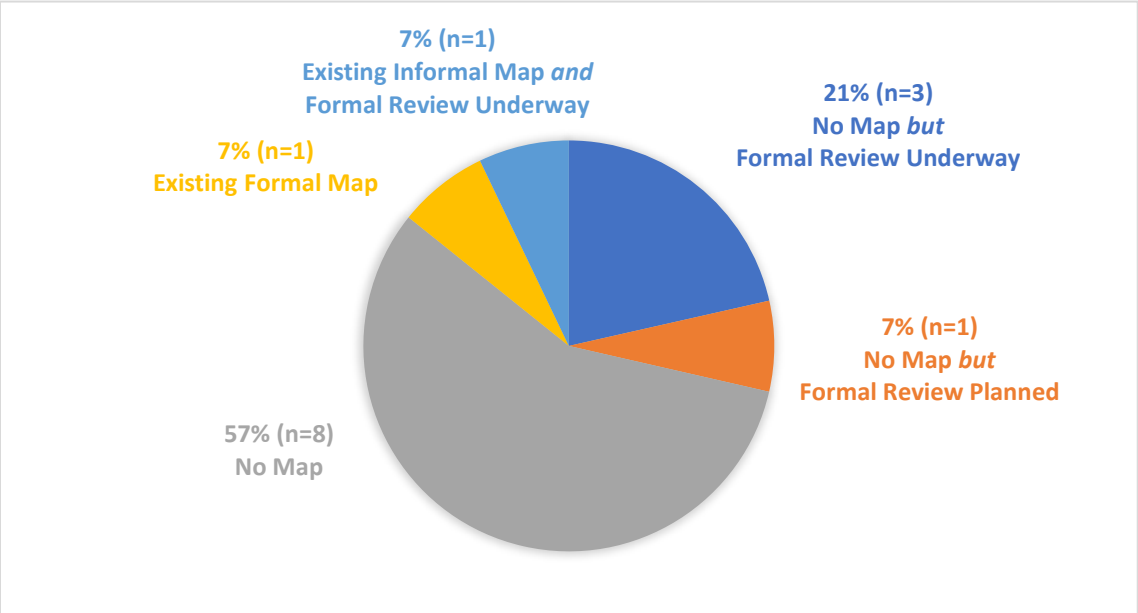
In four programs, the identified content areas were also made available to PT students outside of the mandatory curriculum. For example, one program has a 12-hour elective course on Indigenous health while another has an elective seminar in preparation for clinical placements in Indigenous communities. Another program has an interprofessional course with group projects, one of which takes place in an Indigenous community. Some PT students take advantage of optional learning opportunities generally available through the university such as a two-week land-based learning experience in an Indigenous community or the KAIROS Blanket Exercise. And finally, one program now requires all applicants to the PT program to take a 3-credit course (or equivalent) in Canadian Indigenous history as a program pre-requisite. This ensures that students enter the program with baseline knowledge of historical context so that PT program course content can focus on the implications of this historical context on health and PT practice.

4.1.2 Curricular Mapping

Two PT programs had an existing curriculum map specifically for Indigenous content within the PT program. In one case, the program had several topic streams, each with a stream coordinator responsible for creating and updating a formal map. In the other case, the map had been informally created by an individual faculty member for their own use but also shared with the department upon request. Four PT programs (including the one with an existing informal map) were actively (or imminently) having their curriculum formally reviewed in relation to the TRC Calls to Action or equity, diversity and inclusion broadly, and would therefore soon have an associated map. These were part of broader faculty-wide reviews of all health profession programs or part of university-wide reviews. One PT program was planning to formally review Indigenous content as part of a general curriculum review. More than half of the PT programs

(n=8) did not have an existing Indigenous content curriculum map and had no plans to create one.

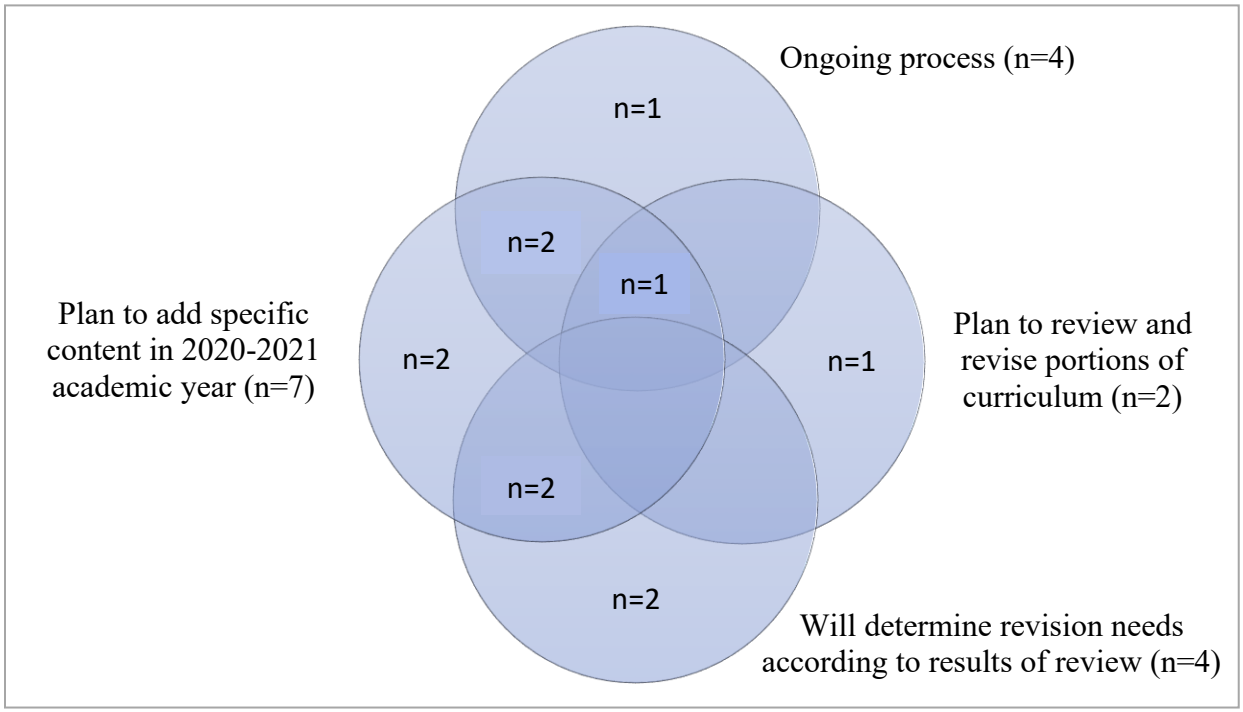
Figure 5. *Frequency of existing or planned Indigenous content curriculum map*



4.1.3 Curricular Planning

Seventy-nine percent of PT programs (n=11) had plans to increase curricular content of interest in this study. Twenty-nine percent (n=4) considered this an ongoing process that is part of the continual revision of curricula. Fifty percent (n=7) had plans to add specific content in the 2020-2021 academic year. Two were planning to review certain portions of the curriculum and revise accordingly and four were planning to determine the revision needs according to the results of a curriculum review. Five PT programs fall into more than one of these categories, as represented in Figure 6.

Figure 6. *Number of PT programs planning to add curricular content (total n=11)*



4.1.4 Course Descriptions

Course descriptions for those mandatory courses were obtained from 11 PT programs. These generally included foundations of professional practice such as professionalism (n=8), collaboration (n=7), communication (n=7), interprofessional practice (n=6), ethics (n=5), evidence-based practice (n=3), and client- or patient-centered care (n=3). Other commonly occurring topics were health promotion (n=4), learning processes and theories (n=4), clinical decision-making (n=3), legal and regulatory issues (n=3), and health systems (n=2). In five PT programs, the word *culture* occurred in at least one course description, as either cultural competence (n=2), cultural aspects (n=1), cultural differences (n=1), cultural issues (n=1), or cultural safety (n=1) (in one case, both cultural issues and cultural safety were found in the course descriptions of a single PT program). Other identified topics of relevance to this study include reflection or self-reflection (n=4), advocacy (n=3), equity (n=2), global health (n=2), Indigenous health (n=2), leadership (n=2), mental health (n=2), conflict managing (n=1), power and privilege (n=1), sensitive practice (n=1), and social justice (n=1).

4.1.5 Learning Outcomes

Learning outcomes associated with the curricular content were obtained from 10 PT programs. In many cases these were articulated as *course objectives* or *learning objectives* (n=6)

and in one case as *competencies to be developed*. In 50% of PT programs (n=5), learning outcome terminology included specific topics such as the history of colonization and Indigenous health (examples in Table 4). In three PT programs, learning outcome terminology was limited to foundational topics such as anti-oppression, cultural competence, power and privilege, and social equity (examples in Table 4). In two PT programs, learning outcomes were exclusively articulated as specific entry-to-practice milestones from the Competency Profile (NPAG, 2017).

Table 4. *Examples of learning outcomes associated with curricular content identified in this study*

Types of Topic	Learning Outcomes
Specific topics such as ▪ History of colonization ▪ Indigenous health	1. Recognize that Indigenous histories extend back as far as pre-creation from time immemorial. 2. Describe Canada's colonial history and the impacts on Indigenous people's health and wellbeing, specifically the Indian Act, the reserve system, residential school system, Indian hospitals, and child welfare system. 3. Recognize Aboriginal Rights & Title and how these impact health outcomes. 4. Recognize the complexity of Aboriginal health governance and jurisdiction over Aboriginal health care in Canada.
	1. Consider Indigenous people's relationship with their environment in their traditional ancestral territories and the ways the health of the environment impacts the health of communities, families and individuals. 2. Define and discuss the concept of "self-determination" as it relates to Indigenous peoples, communities, and Nations. 3. Discuss the determinants of Indigenous peoples' health in relation to the impacts of colonization. 4. Recognize language, culture and connection to land and family as protective factors.
	1. Demonstrate an enhanced awareness and understanding of: (a) the historical and contemporary realities relevant to Indigenous health in Canada. (b) the social determinants of health in the context of Indigenous health. (c) the components of safe and effective health care for Indigenous children and their families. 2. Reflect and critically analyze personal knowledge, beliefs and learning needs for development of cultural competence. 3. Demonstrate effective communication with interprofessional student team members while exploring Indigenous health topics. 4. Identify future opportunities for collaboration and translation of interprofessional competencies with Indigenous peoples and communities.

	1. Identify and build awareness about the socio-political context and the disproportionate impacts on the health of Indigenous Peoples, and solutions to address them. 2. Identify principles of engagement with Indigenous Peoples and role of allyship. 3. Identify strategies to promote social justice and health equity. 4. Identify opportunities for inter-professional collaboration in fostering health equity for Indigenous peoples.
Foundational topics such as ▪ Anti-oppression ▪ Cultural competence ▪ Social equity	1. Develop skills in critical reflexivity as it relates to one's own social locations: (a) Understand the concepts of an anti-oppression approach, intersectionality, privilege and allyship, and articulate their relationships to physiotherapy practice and health equity. (b) Recognize and analyze one's social locations (e.g., one's racial and colonial positions), and their relevance to physiotherapy practice. (c) Articulate and apply the tenets of cultural competence in the context of clinical practice. (d) Take appropriate action when facing inequities and/or discrimination in the healthcare context.
	Develop, integrate and display an understanding of the skills and application of motivational interviewing and therapeutic alliance in a patient centered approach anchored in principles of social equity.
	Demonstrate sensitivity and respect for the rights, dignity and uniqueness of each client (cultural sensitivity, minority community).
	Recognize the unique physical, social, psychological, and cultural characteristics associated with changes in an individual's health, health status and the disablement process.

4.1.6 Indigenous Educators

Two PT programs had at least one Indigenous PT faculty member, 11 had none, and in one case it was unclear as the faculty member may not have officially self-identified as Indigenous (see Figure 7). On the other hand, more than half (n=8) of PT programs had at least one Indigenous person involved in teaching in some capacity, whether as a program faculty member, faculty member from a different program, university Indigenous resource person or educator, or guest speaker (see Figure 8). Four PT programs had no Indigenous person involved in teaching, in any capacity. And in two cases it was unclear, where in one case it was not known whether an Indigenous person accompanied the non-Indigenous guest lecturer, and in the other case, as mentioned above, there was some uncertainty as to whether one of the PT faculty members self-identified as Indigenous.

Figure 7. *Number of PT Programs with at least one Indigenous PT Faculty Member*

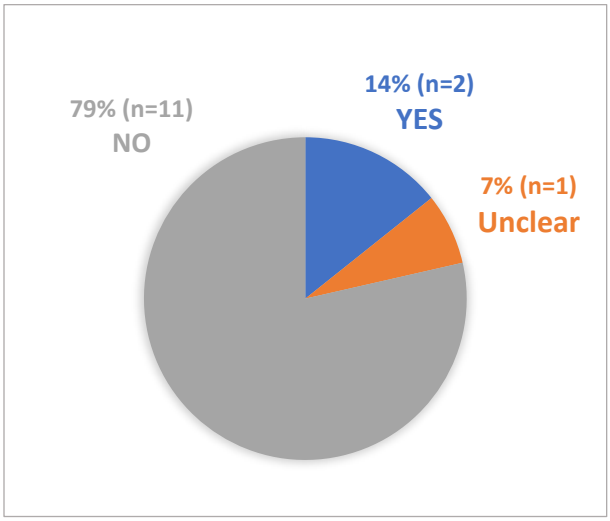
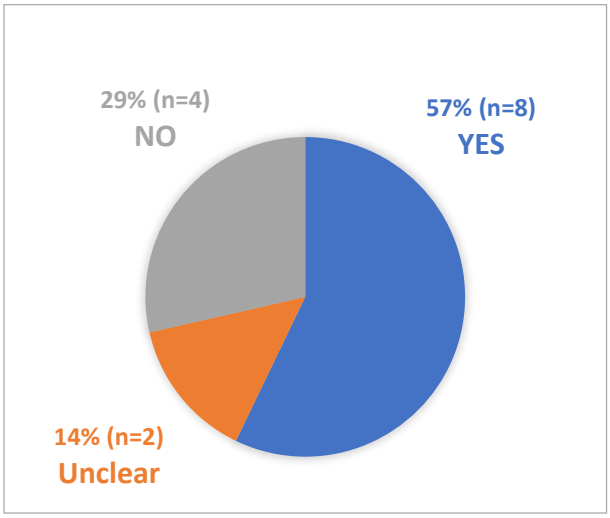
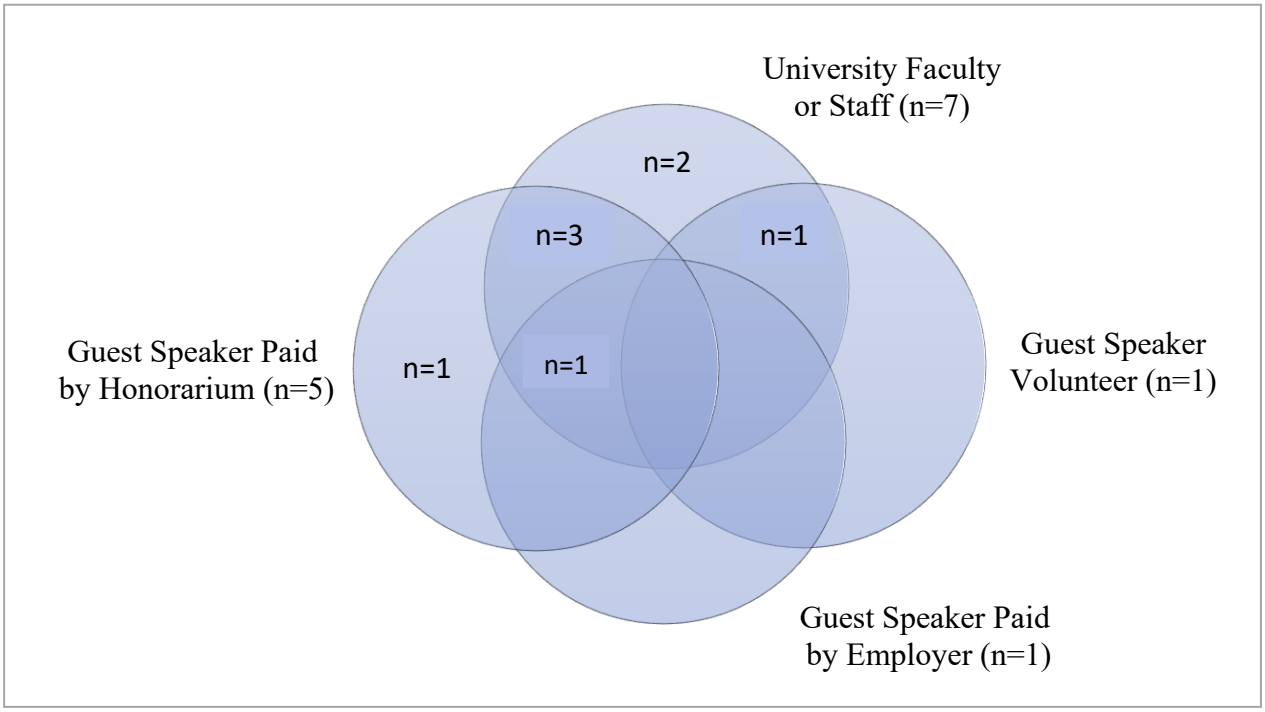


Figure 8. *Number of PT Programs with at least one Indigenous person teaching*



Among those PT programs with at least one Indigenous person involved in teaching, in most cases this was a university faculty member or staff (n=7) or a guest speaker paid by honorarium (n=5). In two cases, the guest speaker was either a volunteer or paid by their own employer. In five cases, more than one form of remuneration was used within the same PT program (see Figure 9).

Figure 9. *Distribution of systems of remuneration of Indigenous educators*



4.1.7 Educational Spaces

In 11 PT programs, curricular content identified in this study was taught exclusively within the traditional physiotherapy program lecture, seminar, or laboratory environment. In one PT program, mandatory curricular content included two off-campus site visits: one in community health and one in primary healthcare, both involving multiple sites, the majority of which targeting Indigenous Peoples. The same university also offered a two-week land learning opportunity in Indigenous communities. Two other PT programs offered optional off-campus learning opportunities through either a 12-hour elective Indigenous health course which takes place within an Indigenous health and wellness clinic, or an optional interprofessional group project taking place in an Indigenous community.

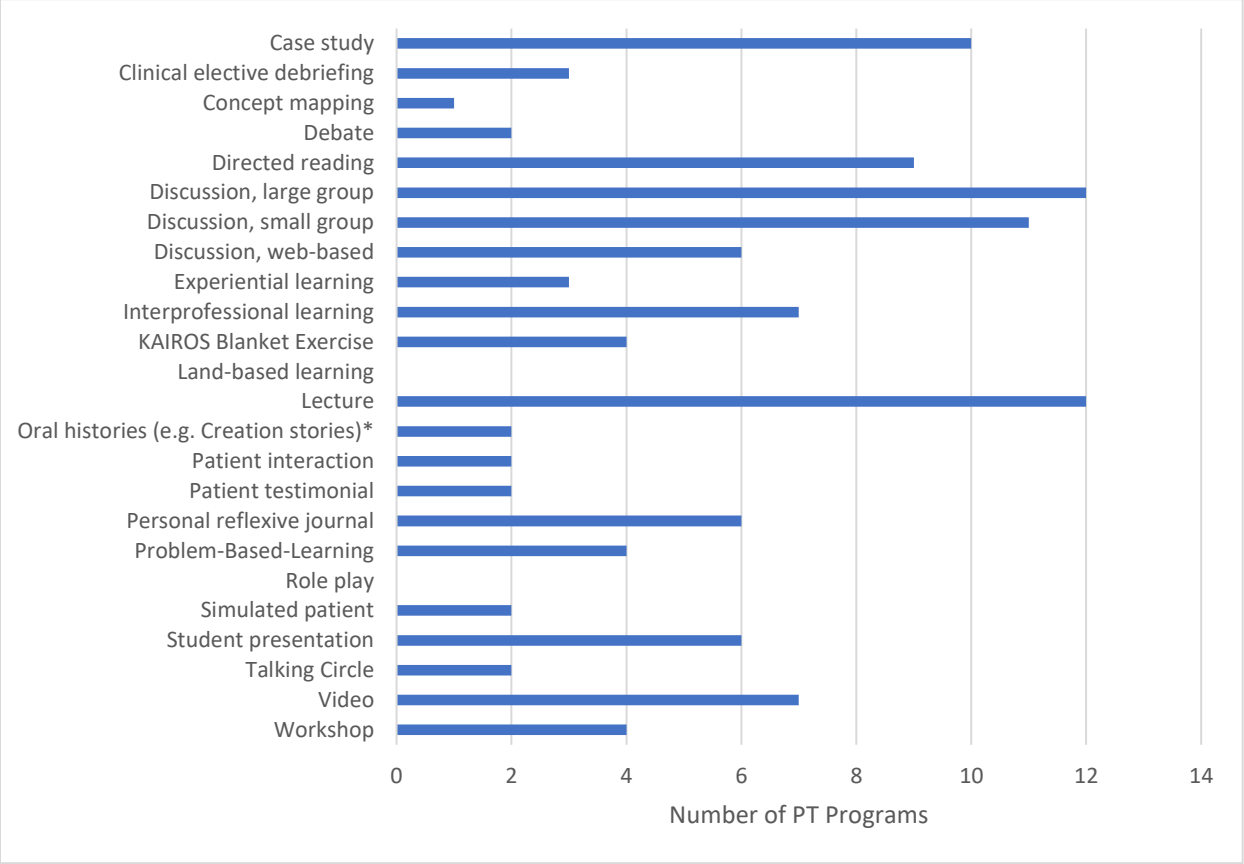
4.1.8 Teaching Methods

With regards to mandatory curricular content identified in this study, a range of teaching methods were used (see Figure 10). The most frequently occurring teaching methods across the 14 PT programs were large group discussion (n=12), lecture (n=12), small group discussion (n=11), case study (n=10), and directed reading (n=9). Among the seven PT programs using interprofessional learning for this content, in most cases this involved all health profession programs within the university (n=5), whereas in some cases it was OT and SLP (n=1) or OT only (n=1). Four programs integrated the KAIROS Blanket Exercise, which is "an interactive and experiential teaching tool that explores the historic and contemporary relationship between Indigenous and non-Indigenous peoples in the land we now know as Canada" (KAIROS, n.d.). Within the two PT programs where oral histories are shared, this was not always guaranteed, depending on what the Indigenous Elder felt would be best to share during their session. None of the PT programs used land-based learning or role play for this content.

4.1.9 Assessment Methods

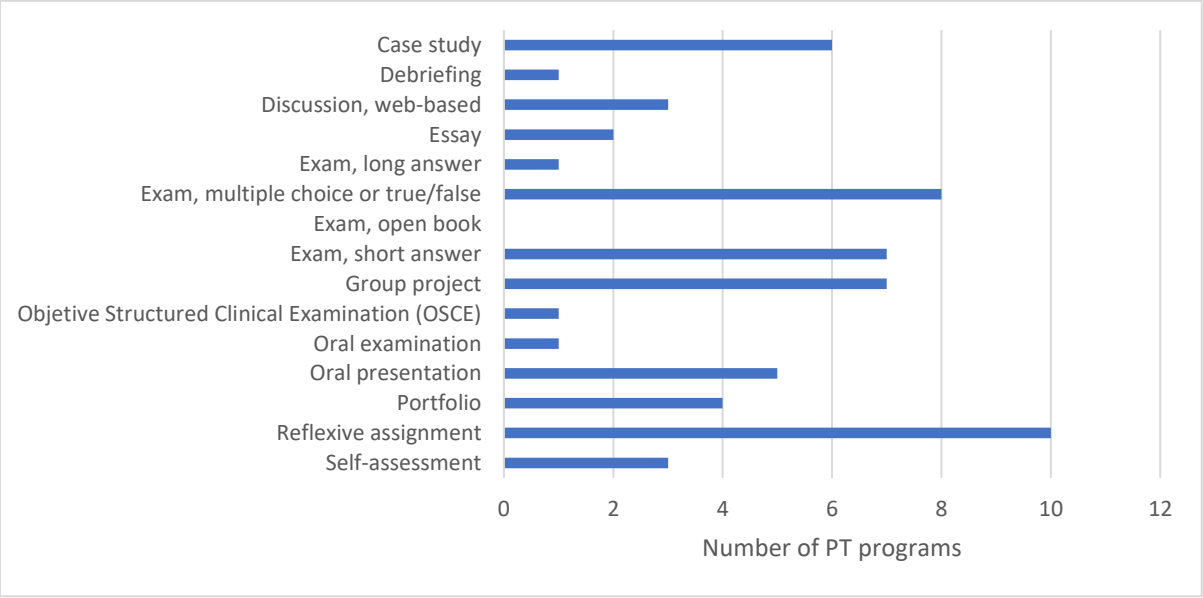
A range of assessment methods were used for mandatory curricular content (see Figure 11). The most frequently occurring teaching methods were reflexive assignment (n=10), multiple choice or true/false exam (n=8), short answer exam (n=7), and case study (n=6).

Figure 10. *Frequency of teaching methods for mandatory curricular content*



*: Oral histories may or may not be included, depending on the Indigenous Elder speaking

Figure 11. *Frequency of assessment methods for mandatory curricular content*



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4.2 Thematic Analysis of Curricular Change Processes

In this section, I present five themes describing curricular change processes: (1) An Indigenous Worldview is Key; (2) Universities are Putting Supports in Place; (3) Processes are Complex and Challenging; (4) Faculty Members have Learning Needs; and (5) Drivers for Change. These themes were developed through thematic analysis of interview transcripts, questionnaire answers in the case of the participant who completed the questionnaire but later declined the interview, and member checking feedback on preliminary themes. Each theme has between three and eight subthemes. Anonymized participant numerical identifiers were removed from participant quotes in an effort to optimize anonymity (as described in section 3.10 of the previous chapter).

4.2.1 Theme 1: An Indigenous Worldview is Key

An Indigenous worldview was identified as key to curricular content development, regardless of the extent to which it was implicated within programs. One participant explained that Indigenous content should in no way be developed without Indigenous people at the center of it, and that this is exactly the wrong way to develop educational material and deliver it if what you want to do is dismantle the structures that are causing inequities in the first place.

In this theme there were four embedded subthemes: (1) Collaboration with Indigenous scholars, educators, students, clinicians and communities; (2) Building and maintaining authentic relationships, (3) Indigenous persons are under-represented and over-subscribed; and (4) Non-Indigenous persons also have a role to play.

4.2.1.1 Collaboration with Indigenous scholars, educators, students, clinicians and communities. PT programs and individual PT faculty members collaborate with Indigenous people for curriculum development. These include Indigenous Elders, educators, resource persons, colleagues and students within universities, as well as Indigenous clinicians, communities, community centers and health authorities outside of the university setting: “Everything that we do, we consult with, whether it be Elders, or people in the Indigenous community. We never just make up things on our own, it's always with a lot of consult, and having that be the drive”. In some cases, curriculum development relied on such collaboration and was not implemented until it was in place:

> As of next year, it'll be an Indigenous case [study]. Why we were hesitant to do it until now is … because what it's going to require is partnership with Indigenous educators to make sure that the case is appropriate.

4.2.1.2 Building and maintaining authentic relationships. Authentic relationships with Indigenous people and Indigenous communities are foundational and necessary for collaboration in curriculum development, with the absence of such relationships being an important barrier:

> The fact that we don't necessarily have an Indigenous partner at the moment probably limits our ability to implicate them in any real or important way, and not just say: "hey you, you have an Indigenous background… share with us".… It's not easy when you don't necessarily have an established partnership.

For those programs with already established and/or developing relationships, the process of developing and maintaining these relationships was described as one that takes time and cannot be rushed: "It takes a lot of time and energy to form and nurture relationships with Indigenous colleagues and communities". This was also described by another participant: "These are collaborations that take time to develop. The element of "time" can be an obstacle. One must respect the time that it takes".

In one case, rather than having multiple programs and departments approaching Indigenous communities on an individual basis, the university had hired an individual to lead the development of community partnerships, which could then be shared among programs:

> We have [many health science] programs and schools, and many of them offer professional programs. So each of those programs would want to establish those same partnerships, and we would burn the community out very quickly because there are so many … every unit has a program that would want that outreach.… There's just too many units for each unit to be approaching a community and evolving a relationship. So the faculty, and, more broadly the university, has appointed someone who is going to take the lead on those community partnerships.

4.2.1.3 Indigenous persons are under-represented and over-subscribed. Despite the acknowledged need for an Indigenous worldview in curriculum development, lack of availability of Indigenous community members in this process can be a barrier. For example, one participant said: "I think access to Indigenous community members is challenging. I think everybody is looking to connect with Elders and community members, and there's only so many people that

are willing and able to go around". Another participant echoed this sentiment: "Indigenous Elders are just swamped.… Particularly with people trying to increase the Indigenous engagement. So, they're being asked to do more".

Indigenous persons are also generally under-represented among university faculty members, both within and outside of the PT program: "Our initial findings [in a curriculum mapping exercise] across the faculty is that the majority of courses are not offered *by* [Indigenous] Peoples, because they are under-represented in our faculty".

It was also pointed out that it should not be assumed that Indigenous persons, by virtue of having an Indigenous background, are necessarily interested in being involved in Indigenous curriculum development, whether they are community members, faculty members, or students:

> Like just because there's one Indigenous student within the PT program, say, we should not assume that they want to be taking part in this kind of work. And that we should not assume that they should be leading the session on residential schools or anything like that. Not that we've assumed that, but I think that's been some of the expression coming from the Indigenous students. Sometimes they are looked to do this work and… they are just as busy as anybody else, you know.

4.2.1.4 Non-Indigenous persons also have a role to play. Non-Indigenous persons with clinical and/or research experience with Indigenous communities, occasionally referred to as "allies", often contributed to curricular content development within PT programs. In most cases, this was in collaboration with Indigenous persons. In describing the development process of interprofessional [curricular] content, one participant explained that "they did try and pull content experts that were Indigenous or were an ally". Though the role of non-Indigenous educators in curricular development is an important consideration (see for example Schmidt, 2019), it was beyond the scope of this study to explore this further. For those content areas which may not be exclusively specific to Indigenous Peoples, such as cultural competence, critical approaches, and equity, diversity and inclusion generally, non-Indigenous persons knowledgeable in these areas were primarily involved in curriculum development.

4.2.2 Theme 2: Universities are Putting Supports in Place

This theme describes how many universities are putting in place formal supports for the development and transformation of curricula in relation to Indigenous Peoples. These initiatives are generally university-wide and not specific to PT programs however they often play a large

part in determining how curricula are developed within PT programs and what supports are made available to PT faculty members for curriculum development. In this theme there are four embedded subthemes: (1) Strategic planning legitimizes existing curricular initiatives; (2) Working groups and committees develop curricular content; (3) Indigenous resource persons support faculty members; and (4) Capacity building events and professional development opportunities foster learning and collaboration.

4.2.2.1 Strategic planning legitimizes existing curricula initiatives. Most universities have a formalized strategic plan related to Indigenous Peoples, whether it is articulated as an Indigenous strategic plan, a reconciliation action plan, Indigenous education as part of the general strategic plan, or an explicit commitment to indigenize the university. This serves to legitimize and support existing curricular initiatives:

> There has been a big, explicit, strategic commitment to doing better on equity, diversity and inclusion in general … but also sort of within and alongside that a commitment to doing better on Indigenous education. So, from the top … rhetorically and strategically there was a big support for this, so it made it very thinkable, and like, "Oh, of course we're doing this." And even to the point where the faculty would say, "So what are you doing around…", you know, "We need to write our response to the TRC report, can you tell us what your faculty is doing?" And so as soon as you're asked a question like that, it legitimizes actually trying to add more into the program.

Another participant similarly described how "there's been a greater focus at the university level, faculty level … with the strategic plan, all of that in turn has put a greater focus on the content, [and] has allowed those other (curriculum development) things to happen". A third participant echoed the same sentiment: "The steps that we've taken most recently have been facilitated by all of these plus the commitment from administration from the higher level within the university down through the [faculty], and leadership within the [school] as well".

4.2.2.2 Working groups and committees develop curricular content. Many universities have working groups, committees and other initiatives in support of embedding Indigenous curricula within programs. These often encompass a group of programs, such as all health profession programs, while some are specific to the PT program. They also typically address curriculum as part of a collection of Indigenous-related activities including Indigenous

student recruitment and retention and Indigenous advocacy and research. For example, interprofessional curricular content in one university was

> developed by a handful of staff members out of the [Indigenous health initiative], that was developed from the response to the TRC. So, when the TRC came out, they created [an Indigenous health initiative], that looks at everything from education and research and student support. So it's a mixed mandate … including educating culturally competent healthcare providers.

An example of an Indigenous advocacy committee within a PT program specifically was described as follows:

> "It's a mix of staff, clinicians and students. And we have four mandates, where it is research, curriculum, community and … admissions.… Those are our four mandates to support projects and mainly looking at the advocacy piece, advocating for funding, support, connecting people, and also working on projects that might be beneficial to physiotherapy, under those four umbrellas.

4.2.2.3 Indigenous resource persons support faculty members. Many universities have also hired Indigenous persons to support Indigenous curricular development, including Elders, educators, curriculum developers, resource persons and coordinators. For example, one participant explained:

> In the university, we have Elders who are available broadly. So that's one resource. We also have access to someone [Indigenous] who's been hired to promote good practice, like safe campus but also to build capacity across the board, so that we are a more inclusive campus and have an inclusive curriculum across health.

Another participant described support for the PT program specifically:

> This Indigenous [person] … was a teacher previously … [they're] an educator. So [they] were hired full-time.… [They're] shared among five [programs], so therefore [they're] 0.2 FTE to each of the five [programs]. So [they] are our go-to person if we want anybody to help with Indigenous health curriculum. If we're developing a new case, we can run it by [them].

Some universities also have an Indigenous resource center, where staff can support faculty members: "For each of *my* cases, I brought them to [the Indigenous resource center] to ask them

if they thought they were appropriate.… It's mostly geared toward students but they've always been very welcoming when I've called for help".

4.2.2.4 Capacity-building events and faculty development opportunities foster learning and collaboration. Capacity-building events and professional development opportunities are being organized within universities, as well as regionally, to foster learning and collaboration. For example:

> We've had some regional conferences on indigenizing the curriculum that are led by local Indigenous leaders.… [They] were actually run from [another university]. They have a strong faculty led by Indigenous academics and Elders, and they, in our area, have been the first to put together a curriculum on Indigenous health. And they are building capacity. Some of the people who are our experts … now were partnered with those people so, those networks are important.

Another participant reported internal faculty development opportunities: "within [our faculty], there's been faculty development sessions, for decolonizing the classroom".

A third participant described hiring Indigenous consultants for faculty development and also to support overall curriculum planning and development:

> [They're] an Indigenous physician, and [they] were just very clear in [their] presentation about the link between racism and the state of Indigenous health in many communities, and so was very good. And we met [them] as a small group but then also, as I say, larger events that were targeting the entire faculty and student-directed events. So, those events, have not only served the purpose of broad awareness and education, but they've also informed the direction that we, after an event like that, that sort of reoriented us in many ways, or focused us. So that is a part of, we think this is a part of what this committee, their role will be; to continue these types of activities, these large, broad, faculty-focused activities as well as some of that smaller, not smaller in terms of importance, but more focused work in the content of curricula and things.

From this quote we can see that capacity building events can serve a variety of purposes, from broader faculty development and student education and awareness to the support of vision development in curriculum planning. All of these elements impact PT curriculum development in different ways, including actually being a part of the PT student curriculum. We also

understand from this quote that faculty development and curriculum planning are envisioned as an ongoing process that is relational and involving input from Indigenous consultants.

4.2.3 Theme 3: Processes are Complex and Challenging

This theme describes how the process of curriculum development in relation to Indigenous Peoples is complex and challenging in a variety of ways. One participant described feeling overwhelmed as they began to understand the complexity of the task and not knowing where to start. Some challenges may be considered broader and potentially applicable to many different content areas, whereas others are specific to the issues surrounding settler-Indigenous inequity and the complexities of addressing such issues. The eight subthemes embedded within this theme describe some of these challenges and complexities: (1) Establishing relevance; (2) Making space within the curriculum; (3) Personal discomfort can be inhibiting; (4) Creating safe learning environments for difficult conversations; (5) Workload is not always recognized; (6) Lack of educational resources; (7) Absence of national guidance; and (8) White supremacy and colonial structures are barriers.

4.2.3.1 Establishing relevance. The relevance of Indigenous-related content for PT curricula may be challenging to establish. If PT faculty members do not understand this relevance, this can be a barrier to implementing this content into the courses that they teach as exemplified by this participant:

> How did it get to a point where, I'm the one who's doing the Indigenous education, and they don't see how it's relevant to what they're teaching? And that's a barrier.… A barrier is in trying to establish relevance, to all areas of practice, regardless of the body part, regardless of the pathology, or condition, or, whether it's a private practice or public setting. It's relevant to everybody. It's not just relevant if you're going to go provide services on reserve.

Another participant described similarly: "Some people prioritize relational interactions, whereas others feel it's more important to talk about biomechanics and muscles… So it's always the issue of multiple competing priorities that is probably the biggest obstacle".

Inconsistency in the presence of Indigenous content through the curriculum can then create hidden messaging to students about the relevance of these topics:

> A barrier, is that at our institution, not a lot of [educators who primarily teach about how to assess the body] are becoming visibly engaged in this other curriculum, which I think

> sends a lot of hidden curriculum sort of messaging about, whose responsibility is this, *where* is this going to be relevant to practice, *how* is this relevant to private practice, where half of … physiotherapists work.

4.2.3.2 Making space in the curriculum. The primary barrier to curriculum development most frequently reported was competition for space. For example, one participant said:

> [The] program, it's so condensed, we've got so much information, so it's finding that time to fit it in, because they are just so overwhelmed now with content, so adding something in, it's just trying to find a slot, and what can you take away because it's packed as it is.

Sometimes the question of space also reflects the issue of where and how Indigenous content is understood to fit into the overall PT curriculum:

> I think our curriculum committee felt that, PT is such a wide domain, like have such wide domains of practice and breadth of expertise, outreach and all that, that we shouldn't just focus on Indigenous populations. They felt that, there's other types, other populations that also need attention. And so, that was a struggle between, what do we include, and how global do we remain.… They recognize the need for Indigenous content, but they also recognize that there's so much other content that we're not covering that we *should* be covering. How to divide our time, between all those.

4.2.3.3 Personal discomfort can be inhibiting. Some faculty members experience discomfort in relation to Indigenous content, particularly for fear of doing or saying something wrong. This is illustrated by this quote: “And again, we talked about the main barrier; it's just getting the other faculty members to be more comfortable. I guess that whole scaredness of doing something wrong”. This can lead to “some people steering away from it”. Some faculty members experience this directly in relation to their personal positionality as non-Indigenous person. For example:

> A barrier in developing anything that has to do with representation of different groups, is that I am very boring. I’m cis-gendered, white … and everybody in my family looks like me so… I think a barrier for me is anxiety in not saying the right thing.

Another participant articulated it as a challenge to overcome inertia: “So people's comfort, including myself [as a non-Indigenous person], in either teaching this content, or… an awareness to be approaching this with humility, but not… but [still] overcoming inertia [to take action]”.

4.2.3.4 Creating safe learning environments for difficult conversations. Some participants discussed the challenges of maintaining a safe learning environment for students when discussing issues of power, privilege and racism. For example, whether to mix or separate student racial groups for small group discussions:

> We do this in small group learning, should I make sure that no one [group] has only white people? Like should I make sure that racialized people are distributed across the small groups? Actually, does that make it unsafe for them? Like oh! … And so, we have been talking about the merits of having mixed racial groups having these conversations versus white people having these conversations alone … should they be having these experiences differently?

This participant also expressed a need for faculty development in this area, and has sought guidance from resource persons within the university:

> Our colleagues that teach on racism from the [Indigenous health office] … talk about: feelings of discomfort are OK, feelings of lack of safety for racialized students are not OK. And how do we make sure as faculty that we know how to respond, that we have our own professional development to provide that kind of curriculum.… This is all the stuff that I am grappling with right now about the future things I want to add to the curriculum and the challenges in doing it.

Another participant raised similar concerns regarding maintaining safe learning environments for racially diverse students, as brought up by their faculty member colleagues:

> But when you look at the class now there are more people of color, and more diverse backgrounds. So as we have … faculty awareness that, wow, we need to have a safer environment, we need to teach our curriculum in a culturally responsive and respectful way.

Indigenous students are also raising these concerns:

> [Indigenous] students have raised issues … about the way content is delivered, as an Indigenous student sitting in the classroom. The content that is there about Indigenous health.… So it's not only just making sure that the content is there, it's about how it's delivered, and it relates to that cultural safety, and more nuanced delivery of some of the... say around the social determinants of health, and we can fall into some patterns of talking about Indigenous health that are stereotypical, and that kind of thing.

4.2.3.5 Workload is not always recognized. PT faculty members can experience ethical tensions when the time demands of curricular development exceed their workload allocation. They can become torn between wanting to engage in developing content, even if the hours are not paid, and also wanting to advocate for having the workload recognized and paid. This participant articulated this clearly:

> But when it comes to budget, I feel that I haven't been successful in it being part of my workload [in a way that reflects] the amount of hours that I'm doing. And that I find personally as a struggle because, do I not do anything that I'm passionate for and I know that it's important, and it gives me a lot of professional and personal joy? Or do I just put my foot down and step back and say no, you need to recognize it and there needs to be that recognition with creating space within someone's job description to be able to do it. I really, I really struggle with that.

4.2.3.6 Lack of educational resources. A lack of educational resources was also cited as a barrier to curriculum development. One participant articulated this as a lack of educational resources that could easily be integrated into existing the PT curriculum:

> And then resources… as I was saying, it's facilitating for us when we have access to things that we can be easily integrated into an existing course. I am not currently aware of many Indigenous health resources that are relevant and that would be easy to integrate into a PT curriculum, or at least our curriculum. So it requires extra effort.

Another participant articulated this as a lack in data about the health status of Indigenous Peoples within the population catchment of their PT program:

> What is the health status of our Indigenous population compared to non-Indigenous groups? … So we've been trying to introduce examples specific to somewhere in our catchment area but, as you're probably aware, there's not a lot of Canadian data to be had.

4.2.3.7 Absence of national guidance. Many participants cited the absence of these topics in the PEAC Accreditation Standards and CCPUP Curriculum Guidelines as an important barrier in the process of curriculum development. For instance, one said:

> And I don't remember seeing anything within the accreditation process, so I think that's a gap. So, if there was, knowing how people respond to accreditation, that would be a way to drive inclusion of curriculum content. Really, people jump with that process.

Similarly, another participant said “I think it would be a lot easier if it was in the entry-to-practice guidelines, like really specifically. Yes, there’s the TRC and action items for the TRC, but I think it needs to be linked to the entry-level guidelines”. A third participant echoed a similar perspective:

> I guess for accreditation it would be nice to have a few of those key words, you know. Like if they search for “oppression” I’m sure they probably won’t find it in our course outline. Which doesn’t mean that we don’t talk about it.

4.2.3.8 White supremacy and colonial structures are barriers. In relation to curriculum development, whiteness was mentioned only twice. One participant identified White supremacy as an important barrier to curriculum development in relation to Indigenous Peoples:

> The other barrier is White supremacy, this social structure which makes us think that what we're doing is the right thing to do. And, to do this work we all need to be doing *active* anti-racist work with ourselves, to try and surface the way that we reproduce White supremacy in every breath.… When I say White supremacy, I'm referring not to White supremac*ists*, individuals who very intentionally want to cause harm. But rather, White supremacy, the social structure that's been in place for centuries, and is reproduced all the time unwittingly by White [people] and others who have also been socialized into the system, which believes that White [people] are the right way to be, that that's the right way of seeing the world, and that they are superior humans.

The only other mention of whiteness was in relation to reviewing PT case studies to call out whiteness:

> We are going to actually do a review of all of our case studies and see where we can actually label cases as White. Whereas historically we have just assumed the normative if it is not mentioned, that that would be the norm, but starting to call out whiteness. So, if a case doesn’t mention a particular race, we have made this assumption that somebody is White and therefore they’re neutral and kind of normative.… where somebody is not described as a particular race why are we not calling them White?

Colonialism was also only brought up by two participants, in relation to disrupting colonialism through decolonizing of the curriculum and the classroom. One participant articulated it as a challenge: “There's a real need for *how*, not only what this stuff is and pulling in this specific information about Indigenous health practices, but we need support into, how do

we embed this, how do we decolonize the curriculum, and that kind of thing". The other participant articulated it in terms of faculty development resources within the university: "there's been faculty development sessions, for decolonizing the classroom". This same participant also cited the colonized structure of the university institution as a challenge: "It is very much a challenge … our colonized structure cannot value [an Indigenous interpreter] differently than everybody else.… So, it's an ongoing challenge, trying to figure out how to deliver this curriculum with limited resources".

4.2.4 Theme 4: Faculty Members Have Learning Needs

This theme describes how PT faculty members have learning needs in relation to Indigenous Peoples and how to develop related curricula. The identification of such needs was clearly expressed by this participant: "We've identified the need for not only education of our students but faculty education, faculty and staff.… About anti-racism, and cultural safety, and awareness of the specific issues related to Indigenous Peoples". Faculty members may not have had any exposure to Indigenous Peoples in their daily lives or in their formative education. Similarly, they may not be aware of the issues of racism in the healthcare system if they have not experienced them directly. Education needs may be varied and complex. In this theme there are four embedded subthemes: (1) Lack of awareness can be a barrier, (2) Learning can be challenging and time-consuming, (3) Educational opportunities help, and (4) Even content "experts" need support.

4.2.4.1 Lack of awareness can be a barrier. In relation to learning needs, participants identified lack of awareness regarding topics related to Indigenous Peoples as a barrier to curriculum development. Some participants correlated this with the absence of these topics in their own education:

> For most of our faculty, our education didn't include these kinds of topics. Like, we have some junior faculty or new faculty, but, our mid-career and senior career faculty were not exposed to any of those concepts in their own education.… So people are definitely still learning about the racism that's present in our institution and in our community. And then equally coming to learn about the health inequities that stem from racist behaviors and that constant assault that goes with being a minority and racist behavior. So, that lack of knowledge, lack of experience, is a barrier.

Similarly, another participant noted:

> I think, this wasn't part of the curriculum 20 years ago.… So, I think the barriers for people who are siloed in their white privilege ways, trying to figure out how to take these baby steps and move forward. They don't know necessarily how to make it relevant to their own knowledge and skills, and curriculum.

One participant has noticed that during the last few years, there has been a shift in the awareness of PT faculty members in their program, and that this has removed a barrier:

> When I first said the TRC, years ago, I had to do lots of explaining. So … there's [now] broader awareness of residential schools, and the history, and the Truth and Reconciliation Commission, that I see within our faculty.… That removed a barrier around prioritization of this issue.

4.2.4.2 Learning can be challenging and time-consuming. For some PT faculty members, learning about Indigenous Peoples and related topics can be challenging and time consuming. For example, in the absence of colleagues who identify as Indigenous or have experience working with Indigenous Peoples:

> And there's also the time, people would say well, we want to learn, how do we learn? And that's [the thing], we don't *have* people with lived experience and [Indigenous] knowledge, and very few *non*--Indigenous people with expertise that would be respected by the Indigenous community. So we need to... take other steps to learn, as well as, to find the experts who can teach our students. So it's a slower process than many would like.

However, even when learning resources exist, time constraints can be a barrier in accessing such resources:

> I think physiotherapy faculty is challenged in getting on board because of our limited resources. You know, people just don't have the time to attend [faculty development] opportunities … because everybody is busy - busy busy busy - we just don't have enough resources for people to attend all these workshops.

4.2.4.3 Educational opportunities help. Attending university educational opportunities can be powerful and transformative learning experiences for PT faculty members who may otherwise have limited exposure to Indigenous community members. For example, one participant shared their experience in attending a capacity-building event bringing together health science faculty, Indigenous students and staff, and local Indigenous communities:

> And then me going to participate [in] this [capacity-building event], which was amazing, and an eye-opener also. Because, to tell you the truth, I knew nothing. I mean I knew, what, I guess... [what is taught in Canada], you know. You learn the history, and you learn the history that's twisted because it's the history created by white people, I guess, and it's... whatever it is. So we learn about the different tribes and Indians and whatever, but, I didn't even realise how many Nations, different Nations, how many different... groups, and how diverse they can be.… So, to me it was an eye-opener, to go to this [event] and hear the students, the voice of the [Indigenous] students, was very.... it was an eye-opener for me.

Another participant shared an experience attending a workshop for faculty where there was sharing from local Indigenous communities but also about the challenges experienced by Indigenous students in the university environment:

> And there were a couple [of] students, but it was more so from the people who work at [the Indigenous resource center], who talked about how difficult it is for them to integrate into the university community, which were things I didn't really understand previously.… If someone is going for ceremony … but the ceremony length is actually dependent on a number of people that show up. So I had, I didn't know any of that stuff and why that's so difficult then for a student to say "this is how much time I'll be missing". Because we are trying to instill in them professional behaviours and responsibility, and then it really makes you really think "what does that actually mean", right? … So having rules about how many days you can miss, or how many things you can miss, to be eligible to write an exam, doesn't seem to make sense to me anymore, when you think about all these different perspectives.… There were so many things that we learned … and there is so much left to learn obviously. But it's really, I found it was really, really beneficial.

4.2.4.4 Even content "experts" need support. Although learning needs were generally identified for those faculty members with limited exposure to Indigenous Peoples and topics, it was also acknowledged that even those individuals who might be considered "experts" can still have learning needs and benefit from support. For example, as one university drew upon content experts across the university in the development of an interprofessional course, one step in the process was to provide learning resources:

> They did try and pull content experts that were Indigenous or were an ally. And those individuals that were either Indigenous or an ally that didn't have the background in regards to understanding the foundations on the TRC and some foundational or framework ideas in regards to Indigenous health, they gave people the opportunity to do some learning and resources to do some learning, before they participated in maybe being a content expert. Because they did notice or there was identified a gap that, sometimes we don't know what we don't know, and, just because maybe we may identify as Indigenous, or may identify as an ally, we can't possibly know everything on this topic.

4.2.5 Theme 5: Drivers for Change

This fifth and final theme describes the types of influences that have driven curriculum development in relation to settler-Indigenous inequities. These may be local to the program, to the faculty, or to the university. They may also be external to the university and more broadly felt across the country. However, the drivers of curriculum development play a role in determining how curricula are developing and implemented within PT programs. In this theme there are three embedded subthemes: (1) Individual faculty member initiatives, (2) University directive, and (3) The Truth and Reconciliation Commission of Canada.

4.2.5.1 Individual faculty member initiatives. The single most frequently reported primary driver for curricular development in relation to Indigenous Peoples was individual faculty member initiatives. In such cases, one or a few PT faculty members, sometimes referred to as "champions", took it upon themselves to initiate content development and/or invite Indigenous speakers. For example, one participant explained:

> It's having a champion within the faculty that has lived experience in working in a cross-cultural environment. What prompted it? Nobody asked me to do any of this. I did it all because I wanted to. And I was given the *freedom* to slowly build it.

In some cases, it was OT faculty member champions who influenced PT colleagues and/or supported them, particularly in cases where OT and PT programs are closely connected. One participant reflected:

> I guess for me, it was also the fact that the OT program wanted to do it, and there was a driver, and mostly because of [two OT faculty members] who are very strong advocates for it. So, you know, speaking to them, sure they did influence my decision.… They started slowly, trying to make us aware that this is important.

Another participant similarly reported:

> Within the faculty there's a push to acknowledge and incorporate more Indigenous content, particularly from the OT department.… And so there is a big push, from them, and there's a lot of people there with an *interest* in learning more about Indigenous *Peoples*, Indigenous ways of *knowing.* So you require some of those champions or drivers to push things forward.

4.2.5.2 University directive. Another frequently reported driver for curricular development was university directive. For example, one participant noted:

> I do think that this has happened because it was identified as a priority at the university level and at the faculty level. So it was leadership who said this has to happen. And that was in direct response to the Truth and Reconciliation Committee calls to action. I think that would be the most direct reason.

Another participant reported similarly: "I think [the driver] is the university-wide initiative".

One participant shared that each faculty or department is expected to integrate some Indigenous content into their programs, and to report to the university, on a quarterly basis, any and all Indigenous activities undertaken by the faculty:

> Each faculty or department is responsible for looking to integrate some of that content into their own programs.… We have to report every quarter … what Indigenous activities our faculty has undertaken. And how some of these components of the TRC are incorporated into our programs.

4.2.5.3 The Truth and Reconciliation Commission of Canada. Many participants also cited the Truth and Reconciliation Commission of Canada (TRC) as an important driver for curricular development, most frequently in relation to subsequent university directives. For example, one participant said:

> I would say there's been exponential movement since the TRC. So I think the TRC has been a big catalyst to hold institutions like [this one accountable], and specifically because there are calls to actions that are related to health.… So I think there's just more accountability and more tracking of the accountability.

Another participant noted:

> The other big facilitator, not on a personal level but on an institutional level, is the TRC. Because once we got the institutional buy-in, then resources become more available and

not just the curriculum that we teach but the way that we teach it. The culture shift is in play.

A third participant relayed that although the university might have already had an Indigenous mandate, the TRC prompted them to "step it up":

> So, it's been going on for a long time, but I think the drivers are the [TRC] Calls to Action because the university realized that they had to step it up a little. They've always kind of had that focus, but … that kind of stepped it up a little bit in realizing we need to address these calls to action and we have the responsibility to do it.

4.3 Perspective on How Curricula *Should* be Changing

Many participants spontaneously shared their perspective on how they felt curricula *should* be changing in relation to Indigenous Peoples, which correlated with existing or planned curricula within their program. These perspectives fell into three broad categories: stand-alone courses, weaving content through many courses, and making content optional for students interested in those topics. Although these were not entirely mutually exclusive, each PT program did tend to be primarily grounded in one of these categories.

4.3.1 Stand-Alone Course

Some PT programs have a stand-alone course, or section of a course, dedicated entirely to Indigenous health and/or cultural safety. For example, one participant shared that "specific to Indigenous people, we have one course, in which these things are specifically taught with respect to Indigenous people". Another participant reported similarly: "[we have] Indigenous cultural safety modules [that] are interprofessional".

4.3.2 Weaving Content Through Many Courses

In other programs, the approach has been to weave this content through many courses. As one participant noted: "This theme, and other themes, are woven throughout all of the [courses]". Another participant reported similarly: "And that was intentional. We wanted it to be a theme woven throughout the program". This perspective was also shared among programs still working on developing their content: "[We want to] make sure we address portions of it in a lot of different courses. Because I think it has to be throughout the curriculum, not just in one course".

4.3.3 Making Content Optional for Students Interested in Those Topics

In some cases, this content was felt to be a specialized area of practice that should be offered on an optional basis for those students interested in working in those areas: "We offer a

lot of things on an optional basis because not everyone will choose to work in those areas. That's why for Indigenous communities, as with other types of… communities, or practice areas, we make it more optional".

Chapter 5: Discussion

This is the first study to explore how Canadian PT curricula are changing in relation to Indigenous Peoples and their communities. This study demonstrates that change is indeed taking place, that it varies considerably between programs, and that the processes of curriculum development and revision are multifaceted and rife with challenges. In this chapter I discuss the diversity in curricular content between PT programs, how PT programs are attempting to engage with Indigenous Peoples, the minimal acknowledgement of power structures, some of the challenges of curriculum development, faculty member learning needs, and the role of the Truth and Reconciliation Commission of Canada in shaping PT curricula. I also discuss the role of transformative learning in this study and reflect upon and discuss my own process as a settler graduate student in "coming to know". I then present four major implications of this study for practice, future directions for research, and study limitations.

5.1 Variability in Curricula

The portrait of curricular content within PT programs in Canada is significantly varied in terms of content areas, number of teaching hours allocated to each content area, and the total number of teaching hours in each program. This is not surprising given the absence of guidance from the national PT Curriculum Guidelines, Accreditation Standards and Competency Profile (CCPUP, 2009; NPAG, 2017; PEAC, 2012). The Curriculum Guidelines (2009) refer to practice that is "reflective" and "culturally competent and sensitive" (p. 16), and professional communication strategies that reflect integration of influencing factors such as power imbalances, but offer no further explanation of these concepts, leaving interpretation up to PT programs and educators. Additionally, the Curriculum Guidelines are exactly that: guidelines – PT programs are not *required* to follow them but expected to use them as scaffolds. The Accreditation Standards is the only document to which PT programs are held accountable – they must demonstrate compliance with the standards at least every six years if their graduating students are to be eligible for licensure. However, the Accreditation Standards are "intentionally not directive or prescriptive, allowing for program diversity, autonomy, and innovation" (PEAC, 2012, p. 6). The first five Standards address program governance and resources, program development and evaluation, faculty, students, and accountability; these are standard accreditation categories less directly associated with curricular content. The sixth Standard requires that "the program facilitates student achievement of the competencies required for entry-

level physiotherapy practice", referring verbatim to the Competency Profile *Essential Competencies* and *Entry-to-Practice Milestones* (PEAC, 2012, p. 26). Thus, the only curricular requirement, through accreditation, is to demonstrate alignment with the Competency Profile.

Within the Competency Profile there is an absence of specific terminology addressing concepts explored in this study, such as anti-racism, cultural safety, or trauma-informed care. These concepts may be understood as written between the lines within a "client-centered approach" which includes respecting "client uniqueness" and "diversity" (NPAG, 2012, p. 8), or acting with "professional integrity" which includes behaving in a manner that "values diversity" (NPAG, 2012, p. 19). However, if concepts such as anti-racism, cultural safety or trauma-informed care are not specifically articulated in the Competency Profile, then PT programs are not accountable to ensure they are part of the curriculum. Curricular content is developed according to PT program directors and faculty interpretation of the vague references within the Competency Profile to diversity and uniqueness.

The differences in curricular content between programs, and extensive range in number of hours associated with this content, suggest that interpretation of these references may vary widely between programs. The diversity in content areas taught may also indicate different understandings or perspectives between programs, in terms of what constitutes content related to Indigenous Peoples and what could or should be included in PT curricula. For example, although most programs included content about Indigenous health inequity, few considered the health priorities of local Indigenous communities (n=4), Indigenous capacity building (n=3) or Treaty rights (n=5). Diversity in content areas may also be a result of the complexity of the topic area and diversity in terminology and definition of terminology – what some programs term "Indigenous health" may be referred to as "cultural safety" in other programs. Similarly, concepts of anti-oppression can easily be embedded within allyship and Indigenous health without naming it as such because the concepts overlap, although it was beyond the scope of this study to clearly identify when such overlap occurred. The findings of this study do not allow for a deeper understanding of the source of the variability in curricular content between programs.

The number of mandatory hours allocated to this content area may denote relative importance attributed by PT program directors and/or faculty. Particularly in the context of challenges in making space within an already packed curriculum, as described by many participants, those programs with a large number of hours may have identified this content as a

priority. Indeed, participants reported that the development of such curricula was generally either driven by individual PT program faculty member initiative or university directive, indicating that it was either PT faculty members or the university that had determined that the content should be developed. However, the listed challenges associated with curricular content development suggest that those PT programs with fewer hours may not necessarily value this content less – it may rather be an indication of not having yet overcome such curricular development challenges. However, all programs did include at least some content on a mandatory basis, even if in very small amount, demonstrating a nation-wide interest in this area despite it not being a program accreditation requirement.

Interest in this area was also demonstrated by nearly half of the PT programs currently working on creating an Indigenous content curriculum map, if they did not already have one, and more than three quarters of PT programs planning to increase the amount of this content, many of which during the subsequent 2020-2021 academic year. Initiatives to increase Indigenous health, cultural safety and Indigenous worldviews into curricular content are also demonstrated in other health profession programs in Canada, such as audiology and speech-language pathology (Bernhardt et al., 2011), community psychology (Fellner, 2018; McNamara et al., 2018; Schmidt, 2019), medicine (Jacklin et al., 2014; Hudson et al., 2014), nursing (Aboriginal Nurses Association of Canada, 2010; Arnold et al., 2018; Mahara et al., 2011), occupational therapy (Jamieson et al., 2017; Moon et al., 2018), social work (Baskin, 2005; Ives et al., 2007; Leduc, 2018; Transken, 2005), and the health professions inter-professionally (Carter & Rukholm, 2009; Jarvis-Selinger et al., 2008; Kline et al., 2013).

The extent to which curricular content was mandatory within PT programs may reflect different levels of understanding of the relevance of this content for PT practice. Despite the fact that over 60% of people who self-identify as Indigenous in Canada (more than one million persons) live among the general Canadian population (Statistics Canada, 2017), and that racism against Indigenous Peoples is pervasive within the Canadian healthcare system (Allan & Smylie, 2015), some felt that this content is only relevant for those PT students who intend to work in Indigenous communities. However, given that Indigenous persons live among Canadians across the country, it is likely that all physiotherapists will encounter Indigenous patients within their clinical practice at some time, and therefore this content is relevant for all Canadian PT students. Moreover, many foundational content areas explored in this study, such as anti-racism, cultural

safety, and trauma-informed care, are also relevant for other population groups who experience oppression in its many forms.

The manner in which content was integrated into curricula also varied between programs. Although some intentionally wove the content through many courses, it was most often represented within three courses or less. This contrasts with research evidence indicating that content related to Indigenous health and health equity is most effective when integrated longitudinally across the curriculum, with gradually increasing levels of complexity (Beavis et al., 2015). Weaving through existing curricula may also be another way to overcome the challenge identified in this study of an already overcrowded curriculum.

The descriptions of courses containing this content varied, particularly among those programs where content was distributed across many courses, but frequently centered around the Competency Profile domains of practice "professionalism", "collaboration", and "communication". Terminology specific to content explored in this study was often not included within the course description. This may render it challenging to easily identify these specific content areas within courses and possibly suggest that they are less important. Conversely, it may also be an indication that the content has become normalized within courses and therefore no longer requiring mention within course descriptions.

Learning outcomes associated with this content varied as well. Although many included terminologies specific to Indigenous Peoples and colonization, some were limited to foundational concepts and some were purely aligned with the specific Competency Profile Entry-to-Practice Milestones. Articulating learning outcomes according to the specific wording of the Competency Profile may be an efficient way to ensure the curriculum is aligned with developing those competencies within PT students. However, the Competency Profile is silent on the ongoing issues of colonialism, racism and White supremacy, as well as anti-oppressive approaches such as anti-racism, anti-colonialism, and cultural safety. If PT students are not learning about oppressive systems, and how to actively challenge and disrupt them, then in practice they will be unwittingly complicit since these systems are embedded with the profession (Blake, 2020). Although many PT programs do have learning objectives which include some of these concepts, when the Competency Profile Entry-to-Practice Milestones are not explicit about them, then this type of PT student learning effectively becomes optional and left to the discretion of individual faculty member interpretation. This is consistent with the study finding that

individual faculty member initiative was the primary reason this type of curriculum was developed. If PT programs do not have guidance on the type of competency and learning that students are expected to achieve by the time of graduation, how can they be expected to formulate a curriculum and learning activities that foster such competency and learning? Indeed, it was repeated by many participants in this study that the absence of national guidance on these questions is an important barrier to curriculum development.

Teaching and assessment methods used for this content also varied between programs. Beyond the typical teaching methods of lecture and directed reading, there seemed to be a focus on relational exchange, through large and small group discussion, interprofessional learning, and group projects, which supports transformative learning (Mezirow, 1997). Reflexive journaling and assignments also figured prominently, more often in assessment than in teaching, which aligns with the centrality of personal reflexivity in relation to this content and also in transformative learning processes (Mezirow, 1997). Case studies were also frequently utilized, more often in teaching than in assessment, which again fosters transformative learning (Mezirow, 1997) and also suggests that using Indigenous patients as example case histories may be one way that PT programs are finding to include this content in curricula.

5.2 Attempting to Engage with Indigenous Peoples

Beyond the integration of content within curricula, this study demonstrates that Canadian PT programs are collectively attempting to engage with Indigenous Peoples and an Indigenous worldview in the development and implementation of curricular content. This appears to be consistent with conceptions of indigenization and decolonization of post-secondary education – that it must be led by Indigenous people (Battiste et al., 2002; Gaudry & Lorenz, 2018; Tuck & Yang, 2012). Processes of engagement with Indigenous communities for the purpose of curriculum development are also described in other health profession programs in Canada, such as audiology and speech-language pathology (Bernhardt et al., 2011), medicine (Jacklin et al., 2014; Hudson et al., 2014), occupational therapy (Moon et al., 2018), and social work (Ives et al., 2007), as well as in health profession curricula that are inter-professional (Carter & Rukholm, 2009; Jarvis-Selinger et al., 2008; Kline et al., 2013).

Study findings suggest that PT programs attempting to engage Indigenous Peoples in curriculum development are experiencing varying degrees of success. Some programs collaborate extensively with Indigenous scholars and educators within the university and

Indigenous communities at large, while others are challenged to develop these relationships. Some universities are hiring Indigenous resource persons and educators as support, but largely the under-representation of Indigenous faculty members is cited as a major barrier to the implication of Indigenous Peoples in curriculum development. This is consistent with what is reported in discussions of indigenization and decolonization of post-secondary education generally across Canada – that under-representation is a barrier but also a function of the colonized academic environment that does not value or legitimate Indigenous knowledges and epistemologies (Battiste et al., 2002; Gaudry & Lorenz, 2018; Kovach, 2009; Smith, 2012; Tuck & Yang, 2012; Wilson, 2008). The colonial and racist structures of academic institutions are hostile and uninviting to Indigenous scholars, presenting a substantive obstacle to academic engagement with Indigenous Peoples and Indigenous knowledges and epistemologies (Battiste et al, 2002; Gaudry & Lorenz, 2018; Kovach, 2009; Paton et al., 2020; Smith, 2012; Tuck & Yang, 2012; Wilson, 2008). This suggests that increasing the number of Indigenous scholars within PT programs, for greater engagement in curriculum development, will require addressing colonialism and racism within the academy.

Although only two PT programs in this study reported having an Indigenous faculty member on staff, more than half reported having at least one Indigenous person involved in teaching in some capacity, most often paid as a university employee or by guest speaker honorarium, though in one case as a volunteer guest speaker. This suggests that when Indigenous persons are involved in teaching, their time is generally valued through remuneration. However, with nearly all programs teaching Indigenous content in some capacity, nearly half of them are doing so in the absence of an Indigenous educator, which raises the question of the extent to which an Indigenous perspective is adequately represented when presented by a non-Indigenous educator. The potential reasons why Indigenous educators were not involved in teaching within some PT programs were not explicitly explored in this study.

Also, mandatory PT curricula on these topics continue to be delivered nearly exclusively within a typical PT program lecture, seminar or laboratory environment, indicating that PT programs are not utilizing Indigenous places and spaces for curricular learning. This is similarly scarce in other health professions in Canada, with only two mentions in the literature: a single social work educator discussed his use of land-based learning in social work curricula (Leduc, 2018), and Hudson et al. (2014) reported on the Northern Ontario School of Medicine's 2-week

mandatory Indigenous community cultural immersion experience for first year medical students as part of a distributed curriculum. Where land- and community-based learning have been identified as important components of indigenization and decolonization of post-secondary education in Canada (Gaudry & Lorenz, 2018), these have yet to become part of PT curricula. In contrast, one PT program in Australia, a country with a colonial history similar to Canada, has reported on how the curricular use of an indigenized and decolonized space and place can promote transformative learning in entry-to-practice PT students (Bolton & Andrews, 2018).

5.3 Minimal Mention of Power Structures

More than half of PT programs reported teaching about concepts related to power structures, such as power, privilege and oppression, and colonialism/postcolonialism, and concepts of reflexivity, such as reflections about one's culture, attitudes and beliefs, and bias, discrimination and prejudice. And yet, power structures *within PT education and practice*, such as settler colonialism and White supremacy, were minimally mentioned. Only two participants identified whiteness as a barrier in curricular development processes: one specifically calling out White supremacy, and the other endeavoring to call out the normativity of whiteness by identifying race in case studies. Similarly, colonialism was mentioned by only two participants, in reference to decolonizing the curriculum and classroom, and identifying colonized structures as a barrier.

While it was beyond the scope of this study to explore the extent to which PT programs are identifying and/or addressing power structures within curricula, it is an interesting finding that even when prompted to identify barriers and challenges in curriculum development processes, few participants mentioned power structures such as settler colonialism and White supremacy. We do now know why they were not mentioned, however, it is possible that Canadian PT programs generally have not identified such power structures within PT curricula as problematic and generally are not working toward challenging and dismantling them.

Settler colonialism and White supremacy are embedded within PT practice and education. If these systems are not openly identified and challenged, then they will continue to operate unfettered and the oppression of Indigenous Peoples and Indigenous knowledges and epistemologies will continue, even if educational material is 'integrated' into academic programs (Battiste et al., 2002; Dei, 2002; Gaudry & Lorenz, 2018; Smith, 2012). When these systems continue to operate within PT programs, all parties involved are complicit, whether or not this

complicity is overt, intentional, or even understood (Blake, 2020; Nixon, 2019; Paton et al., 2020). This includes PT faculty members, PT programs, and even educational institutions.

5.4 Challenges of Curriculum Development

Some of the challenges reported in curriculum development have also been reported in other health professions. For example, at the Northern Ontario School of Medicine, negotiation of curriculum time was also identified as a key challenge in the development and delivery of Indigenous health curriculum (Jacklin et al., 2014). Challenges in negotiating student emotional reactions to Indigenous pedagogies and knowledges have also been reported in indigenization and decolonization of community psychology education (Fellner, 2018). Faculty readiness for engagement in these topics has been identified as a challenge in several professions, including community psychology, medicine and nursing (Bell, 2020; Jacklin et al., 2014; Schmidt, 2019; Vass & Adams, 2020). And the generalized need for faculty development, in terms of knowledge as well as reflexivity about one's own relationship to colonization, was also identified within the rehabilitation professions (Hojjati et al., 2018).

5.5 Faculty Member Learning Needs

PT faculty member learning needs emerged in this study as an important element in curriculum development processes, as it constituted the entire theme "Faculty Members Have Learning Needs", as well as several subthemes of the theme "Processes are Complex and Challenging": "Establishing relevance", "Creating safe learning environments for difficult conversations", and "Personal discomfort can be inhibiting". The findings suggest that these learning needs may fall into two distinct but related categories: (1) appreciating *why* there is need for curricular change in relation to Indigenous Peoples, and (2) appreciating *what* change is needed and *how* to go about making these changes.

The need for PT faculty members to appreciate *why* there is a need for curricular change is demonstrated by (1) it being challenging to establish the relevance of this content in PT curricula, (2) that lack of awareness was identified as a specific barrier to curriculum development, and (3) that in some cases this content has been rendered optional within the curriculum. This learning need may include awareness of the existence and diversity of Indigenous Peoples and perspectives in Canada, awareness of the colonial history of Canada, Treaty Rights and the ongoing oppression of Indigenous Peoples, appreciation of settler colonialism, racism and White supremacy, reflexivity about one's own relationship to

colonization, and appreciation of appropriately contextualized Indigenous health inequity and its implications for PT practice. PT faculty members reported learning opportunities on such topics to be eye-opening experiences.

The need for PT faculty members to appreciate *what* change is needed and *how* to go about making these changes is demonstrated by (1) the finding that the learning process can be challenging and time-consuming, (2) that personal discomfort can be inhibiting in curriculum development, and (3) that creation of safe learning environments for difficult conversations is challenging. Supports that would foster such learning may include identifying the curricular content and pedagogy that would be appropriate for PT students, and developing capacity in how to integrate it into existing curricula and safely engage students in these topic areas according to one's social positionality (whether one is Indigenous or not). There is also indication that learning may need to be an ongoing process, as even those who are considered content "experts" were found to benefit from support.

The distinction between these two types of learning needs may be important to consider because they are interconnected and sequential. If faculty members are not aware of the realities faced by Indigenous Peoples and their own personal relationship to it, or the relevance for PT education and practice, they may have little interest or engagement in educational opportunities exploring how to engage with this content in their own courses. As one participant aptly said: "sometimes you don't know what you don't know".

Although PT faculty learning needs figured prominently in the findings, and suggest a distinction between (1) *why* curricular change is needed, and (2) *what* change is needed and *how* to go about making these changes, it was beyond the scope of this study to conduct an in-depth exploration of these learning needs nor how they might be met. Unanswered questions include (a) how should specific learning needs be identified? (b) what learning outcomes should be sought? (c) what curricular content and pedagogies should be used? (d) how should it be implemented? (e) who should be involved in developing and implementing it? PT programs may benefit from consulting with university resources such as Teaching and Learning Services and/or Indigenous resource center or employees (if available).

5.6 The Truth and Reconciliation Commission of Canada

Many participants cited the TRC as a driving force behind curricular change in PT programs, whether because it has prompted greater awareness and accountability within

universities or greater awareness within the PT profession broadly, including among PT faculty members. This reaffirms that although these issues date back to the inception of Canada over 100 years ago, and in fact were reported in the Royal Commission on Aboriginal Peoples over 20 years ago (RCAP, 1996), somehow the TRC has prompted greater generalized social awareness across Canada and a rush to "indigenize" universities (Gaudry & Lorenz, 2018). In health professions education, curricular changes have largely focused on the inclusion of Indigenous health and cultural safety content and minimally on addressing epistemological racism, White supremacy and settler colonialism (Arnold et al., 2008; Bernhardt et al., 2011; Carter & Rukholm, 2008; Hudson & Maar, 2014; Jacklin et al., 2014; Jamieson et al., 2017; Jarvis-Selinger et al., 2008; Kline et al., 2013; Mahara et al., 2011; Moon et al., 2018; Pijl-Zieber & Hagen, 2010; Rowan et al., 2013; Stansfield & Browne, 2013; Tamburro, 2015; Zhou et al., 2011). This study suggests that this appears to be the case in PT curricula as well.

5.7 Transformative Learning

Transformative learning was selected as a theoretical framework to guide this study because it was expected that PT programs were aiming to foster transformative learning within students. This framework served as a guide during the initial phases, however the study findings demonstrated such heterogeneity between programs that it was not possible to explore the extent to which programs are indeed fostering transformative learning within students. The heterogeneity in content and learning outcomes between programs is highlighted by the absence of clear and specific learning outcomes within the PT Competency Profile (NPAG, 2017).

5.8 A Settler Graduate Student's Process of 'Coming to Know'

As a settler graduate student choosing to undertake a research project related to Indigenous Peoples, I did not understand the inherent risks that my social positionality as a settler created. I thought that I could "do good" and advocate for improved education for PT students. I began to learn about relational accountability but was not in a position to engage in it because I lacked the requisite relationships. As I began to understand, still in the early phases of conceptualization, that I risked reinforcing colonial narratives through conducting this study, I thought that I could mitigate this risk by having an Indigenous supervisory committee member. I nonetheless viscerally experienced that it did not feel right.

Through the process of data collection and analysis, I much more profoundly understood the extent to which these processes are interpretive and that my settler colonial perspectives

would be embedded within the data no matter my best efforts to be reflexive during the process. This was a profoundly distressing experience for me. Through this process, my understanding of White supremacy and settler colonialism, and their pervasiveness throughout PT education and practice and my own consciousness, also deepened. I began to identify ways in which the conception and execution of this study reinforce colonial narratives. For example, that I thought counting teaching hours would be an adequate way to measure change in relation to Indigenous Peoples – it would have been far more appropriate for me to find out from Indigenous communities what those changes might need to look like and measure *that* instead. Counting teaching hours tacitly endorses this as an appropriate measure of change in relation to Indigenous Peoples. Also, I did not include White supremacy on the original list of content areas, though it has become clear, through study execution, that it is a core concept. Most striking to me now, is that I sought to identify change *in relation to Indigenous Peoples*, as though the issue revolved around them. I now understand that it is an issue of *settler-Indigenous inequity*, in fact caused by ongoing settler colonial domination. To explain a little further – in this study, I aimed to identify change that corrected for the exclusion, marginalization and oppression of Indigenous Peoples, knowledges and worldviews. It is therefore not about Indigenous Peoples but about the inequity that they experienced in relation to settlers – settler-Indigenous inequity. My choice of wording – *in relation to Indigenous Peoples* – tacitly endorses the settler colonial narrative of problematizing Indigenous Peoples. But most importantly (to my understanding at this time), any statement that I make about the data that I have collected in this study, is a political statement about settler colonialism. It is either openly challenging or disrupting settler colonialism, or tacitly endorsing it. I have endeavored to openly disrupt it to the best of my abilities, but I recognize that there are most likely ways that I am tacitly endorsing it without realizing it. I now understand that it is possible to both openly disrupt and tacitly endorse settler colonialism at the same time (Carlson, 2017).

I have struggled with feeling unethical about writing this thesis at all, knowing that it will likely reinforce settler colonialism despite my best efforts to do the opposite. Dr. Dan Henhawk, my Mohawk supervisory committee member, has encouraged me to move forward with it, to share this process of "coming to know". In an academic environment that has traditionally, though but not always ubiquitously, venerated objectivity and neutrality of the researcher (Paton, 2020; Smith, 2012), I have done my best to be as openly transparent as possible about the

perspective that I bring, so that the results of this study may be interpreted accordingly, in context. No research is value or context-free – all research is grounded in tacit assumptions (Smith, 2012).

5.9 Implications for Practice

In this section, I present four primary implications of this study for PT education in Canada, which are (1) Conceptualizing Anti-Colonial, Anti-Racist and Culturally Safe Physiotherapy, (2) Relational Accountability to Indigenous Peoples, (3) Faculty Development, and (4) Collaboration Between Physiotherapy Programs.

5.9.1 Conceptualizing Anti-Colonial, Anti-Racist and Culturally Safe Physiotherapy

PT curricula are developed primarily as a means of cultivating entry-to-practice competence within students according to the PT Competency Profile (NPAG, 207). There is an absence within the Competency Profile of clear conception of how PT may challenge its racist and colonial roots and effectively become anti-colonial, anti-racist and culturally safe to adequately address settler-Indigenous inequity. Indeed, many participants in this study identified the lack of such explicit guidance as a barrier to curriculum development.

Therefore, there is a need for a national vision and conceptualization of anti-colonial, anti-racist and culturally safe PT. This may become a component of the PT Competency Profile, or a separate guiding document, but in either case, it should become a mandatory component of the PEAC Accreditation Standards to guide and direct PT curricular content development and implementation. If specific language continues to remain absent from the Competency Profile and Accreditation Standards, even if it is "between the lines", then any content related to these issues will remain optional within PT curricula.

Other health professions in Canada, such as nursing and medicine, have national Indigenous associations that have developed separate Indigenous health and cultural safety competency profiles to inform education program curricula (Aboriginal Nurses Association of Canada, 2009; Indigenous Physicians Association of Canada & Association of Faculties of Medicine of Canada, 2009). There does not currently exist an Indigenous health or cultural safety competency profile for PT, nor an Indigenous PT association in Canada, although the CPA's Global Health Division does have an Indigenous Health Subcommittee (CPA, n.d.). A national Indigenous physiotherapists association may be a valuable source of knowledge and expertise to support anti-colonialism, anti-racism and cultural safety within PT in Canada.

Conceptualization of anti-colonial, anti-racist and culturally safe PT must be Indigenous led, otherwise it will reinforce settler colonialism and White supremacy (Battiste et al., 2002; Gaudry et al., 2018). In the context of identified under-representation of Indigenous people within the profession and education, strategies for engagement with Indigenous PTs and/or Indigenous communities must be also be co-created with Indigenous communities (Smith, 2012). In processes of indigenization and decolonization, the process itself is as important as the outcome (Battiste et al., 2002; Gaudry & Lorenz, 2018).

5.9.2 Relational Accountability to Indigenous Peoples

Reconciliation between Canadians and Indigenous Peoples is about developing and maintaining respectful relationships (TRC, 2015a). Relational accountability may simplistically be understood as being accountable to those relationships in ways that are authentic and reciprocal (Wilson, 2008). In Canada, where education has been deployed as an aggressive tool of assimilation and cultural genocide, entirely against the will of Indigenous Peoples, the need for relational accountability to Indigenous Peoples in all educational endeavors cannot be overstated (TRC, 2015a). PT programs must be relationally accountable to Indigenous Peoples and their communities in curriculum development. Although some programs are already engaged in this process, it must become a mandatory requirement within the PEAC Accreditation Standards to ensure that all PT programs engage in this. Conceptualization of what this means and how it may be assessed through accreditation should once again be Indigenous led if it is to seek to avoid reinforcing settler colonialism and White supremacy.

5.9.3 Faculty Development

The results of this study clearly identify that PT faculty members have learning needs. Although it was beyond the scope of this study to explore those learning needs in-depth or determine how they might best be met, findings suggest that faculty development should be *at least* two-tiered: (1) appreciating *why* there is need for curricular change in relation to Indigenous Peoples, and (2) appreciating *what* change is needed and *how* to go about making these changes. These are described in section 5.5 of this chapter. The results of this study suggest that learning should begin with appreciating *why*, otherwise faculty members may have limited interest for engagement with appreciating *what* and *how*.

Additionally, the results of this study identify that some faculty members have limited awareness of these issues and may not consider them relevant for all areas of PT practice. If this

is the case, they may not identify the need to participate in faculty development, even if these opportunities are made available to them. This was indeed identified by at least one participant. For this reason, it may be necessarily for some portions of faculty development, particularly the *why*, to be made mandatory for all PT faculty members. This may need to be ongoing until the reality of settler colonialism and oppression of Indigenous Peoples becomes an integrated part of general education in Canada so that new generations of PTs and PT faculty members will already have this foundational appreciation. To avoid reinforcing settler colonialism and White supremacy, similarly to processes of PT curriculum development, faculty development should be developed and implemented collaboratively with Indigenous Peoples and their communities.

5.9.4 Collaboration Between Physiotherapy Programs

The results of this study illustrate that some PT programs have developed substantive capacity in terms of developing and maintaining authentic relationships with Indigenous communities, as well as Indigenous scholars and employees within the university, and are drawing on these relationships for curriculum development. Meanwhile, other PT programs struggle with this or may not necessarily attempt it. Similarly, some PT programs have developed and implemented extensive Indigenous heath and cultural safety curricula, while other programs may be in earlier stages of doing so. Thus, there already exists within the PT education community substantive knowledge, resources and capacity in these areas, which could be shared between programs, particularly those which may be in the earlier stages of such development. There may be opportunities for collegial support, mentorship and sharing of lessons learned. The PT education community in Canada should work together, in collaboration with CCPUP and PEAC, to improve educational outcomes for all Canadian PT students.

5.10 Directions for Future Research

The results of this study provide a first and broad overview of a complex topic, revealing many areas where further research is needed. Future research related to these topics should be relationally accountable to Indigenous Peoples (Wilson, 2008) and ideally Indigenous led (Smith, 2012). Research is needed to explore conceptualization of anti-colonial, anti-racist and culturally safe PT, as well as decolonization and divestment from whiteness in the PT profession, toward developing resources that could support PT programs in curriculum development. Research is needed to understand in more depth how PT programs are fostering reflexivity, anti-colonialism, anti-racism and cultural safety in PT students, what specific learning outcomes are

aligned with this teaching, and what outcome measures are used to assess this learning. Further research is also needed to explore in greater depth PT faculty member learning needs regarding Indigenous Peoples and curricula addressing settler-Indigenous inequity, and how those needs might adequately be met. Finally, further research is needed to explore how PT programs are engaging in relationship building with Indigenous communities and in fostering PT clinical placements within them.

5.11 Study Limitations

This study was exploratory in nature and provides a broad overview of a complex topic. A limitation in this approach is the likely lack of precision in number of teaching hours as these were obtained from a single faculty member who may not be aware of all content taught in the program, leading to a potential underestimation of hours, but who may also overestimate hours and content areas if this might be seen as desirable. In addition, participants may have understood content related to Indigenous Peoples to be entirely limited to Indigenous health and thereby not including more foundational concepts also explored in this study such as the social determinants of health. I attempted to reduce this limitation by seeking the faculty member in each program that was most knowledgeable about this type of content and by including an overview of content areas of interest in the recruitment email. Nevertheless, findings should not be considered exact numerical values but rather estimates intended to provide a broad overview.

Despite such limitations in accuracy, the numerical results of this study are nevertheless useful because they identify a large number of content areas currently part of at least a few PT programs though not necessarily found within the national Curriculum Guidelines. This provides a foundation from which to explore one or a few of these content areas in greater depth and with more precision, since they are identified as already part of PT curricula in varying quantities. In this way, the results of this study have effectively identified a vast landscape of future research possibilities and opportunities.

A second limitation of this study is that teaching hours may not reflect student learning because they do not include learning outside of teaching time (such as in readings, assignments and groups collaboration) and because they are not a measure of learning outcomes. Findings may indicate how programs are choosing to structure and implement their curricula, but this may not necessarily be directly related with student learning outcomes.

A third limitation is that perspectives shared by participants do not necessarily represent the perspectives of all faculty members within each program. I have attempted to obtain the most complete representation of curricular development processes by seeking the faculty member most knowledgeable about this content within each program, and this has been aided when participants chose to consult with colleagues to collect information prior to the data collection interview. However, it remains possible that saturation during thematic analysis was not achieved. Furthermore, it is likely that the findings represent the perspectives of those faculty members most in favor of developing this type of curricular content.

A fourth limitation of this study was the lack of an in-depth comparison and contrasting of conceptualizations of racism, for the purpose of identifying the one best suited to inform this study. Although the selected conceptualization was useful to inform this study, there may be others that could have been equally or more informative.

Finally, as described throughout this thesis, my social identity as a White settler is a limitation in this study because of the inherent risk of unwittingly reinforcing settler colonialism and White supremacy. I have attempted to mitigate this risk by engaging in a reflexive process through all phases of the study, and through the support of an Indigenous scholar as supervisory committee member. However, as has been extensively described, it is likely that these measures have not been entirely successful.

Chapter 6: Conclusion

In this study, I set out to explore how Canadian PT curricula are changing in relation to Indigenous Peoples and their communities. I was specifically interested in finding out what curricula are currently in place or under development and in what context; how the curricula were developed, how they have evolved, and what the barriers and facilitators have been in this process; and what has shaped the development and evolution of the curricula.

I completed questionnaire-based interviews with one faculty member at 14 of the 15 Canadian PT programs, and I analyzed the data using descriptive statistics and thematic analysis. I engaged in extensive reflexive practice before and during execution of the study, particularly reflecting on how my personal positionality as a White settler impacted the research process and study results. I began the study using transformative learning as a theoretical framework and through the course of the study realized that there was an additional lens shaping my understanding of the data, which I later articulated as informed by an anti-colonial approach.

This study has taken place during a historic moment in time that has irrevocably changed the world as we know it. At the time that I began participant recruitment in February of 2020, Indigenous and non-Indigenous people across the country were already in their second month of peacefully protesting the RCMP occupation of unceded Wet'suwet'en territory near the west coast of Turtle Island, shutting down railway travel across the country in the largest Indigenous rights movement in Canada to date. A month later, and days before my data collection interviews were scheduled to begin, COVID-19 was declared a global pandemic and the entire country shut down, including universities. Data collection was significantly delayed as interviews were postponed and participant availability was limited as faculty members struggled to transition to entirely virtual teaching platforms. Two months later, in the midst of data collection and analysis, the murder of George Floyd in Minneapolis sparked massive protests against anti-Black racism throughout the United States and worldwide, bringing unprecedented global attention to racial oppression. Anti-racism movements are ongoing, and institutions are endeavoring to respond appropriately. By the fall of 2020, while writing this thesis, the second wave of COVID-19 swept in with renewed restrictive measures extending well into the new year 2021.

Although the writing of this thesis has extended beyond the initial expected timeline, the incredible surge in free online anti-racist and anti-colonial learning opportunities these past six to nine months has proven to be a powerful education for me during this writing process. It has

dramatically shifted my perspective and understanding of power structures and oppression, informing my understanding of the results and context of this study, including the impact of my positionality as a White settler, and refining my ability to write about it. This continues to be an ongoing process that will inevitably extend well beyond the final submission of this thesis.

Through conducting this study and writing this thesis, I have learned that Canadian PT programs are in a process of coming to understand settler-Indigenous inequity and what it means for PT practice and education. Curricular content is varied across programs, though approximately half teach an average of about 20 hours, and most programs recognize the need for involvement of Indigenous people in some capacity. Some programs have developed quite a lot of content, capacity and relationships, while others are closer to the beginning stages of trying to determine where to start. As expected, the lack of guidance and vision from the national PT community has left it to individual faculty members and institutional directives to drive curricular development, which, short of additional in-depth empirical examination on other root causes, may be the largest reason for such diversity between programs. Although many programs are teaching PT students about issues of power, privilege and systemic injustice, few mentioned such issues within PT curricula or within the profession generally. There seems to be substantial learning needs among PT faculty members, and PT programs would benefit from collaborating to form a national community of practice to share knowledge, resources and collegial support.

Through conducting this study, I now better understand how research about settler-Indigenous inequity conducted by a settler will inevitably reinforce settler colonialism unless firmly grounded in authentic relational and epistemic accountability to Indigenous Peoples. This study was not conducted with such accountability and as a result I believe that the results do reinforce settler colonialism, in some ways in which I am aware and inevitably in other ways in which I am not. I have endeavored through this thesis to be as transparent as possible about my process so that this can be shared with other settlers as part of their learning journey.

I conducted this study because I wanted to bring attention to this subject and stimulate conversation within the Canadian PT education community about it. I believe the results and discussion of this study are a beginning toward that end.

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Appendix A – Data Collection Instrument

Questionnaire

Introduction

Thank you for your participation in this study!

This study aims to explore how physiotherapy (PT) curricula in Canada are changing to reflect the priorities of Indigenous Peoples and their communities. For the purpose of this study, curricula include content and teaching and assessment methods. We are particularly interested in the curricula currently in use or planned, how these curricula have been developed and have evolved over time, and what the drivers for these changes have been.

As a director and/or faculty member in a Canadian PT program, you are asked to provide information about the PT program at the institution of your employment.

You are encouraged to review this questionnaire and consult with colleagues and/or curricular documents to collect pertinent information. While the questionnaire will be administered by semi-structured interview, you are encouraged to enter information directly into this online questionnaire, in whole or in part, in advance of the interview. With the unique access link provided to you, you may access this questionnaire as often as you wish and enter or modify information in any section of it at any time. You will have access to this questionnaire until the day of the interview.

If information requested in this questionnaire is available within your program's documents (e.g. curriculum map or course syllabi), you are welcome to provide these to us by email and allow us to extract the required information (please send to lisa.arcobelli@mail.mcgill.ca). We will then review this information with you during the interview.

This questionnaire contains 4 sections. Each section appears on a separate page of this online platform.

To navigate this online platform, click the "Next Page" and "Previous Page" icons at the bottom of the page. To save information entered, click the "Save & Return Later" icon, also at the bottom of the page, before exiting the platform.

For any questions, please do not hesitate to contact Lisa Arcobelli: lisa.arcobelli@mail.mcgill.ca.

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Questionnaire

Section 1

The following content areas may be relevant to the relationship between Canadians and Indigenous Peoples in Canada:

Access to services
Indigenous Services Canada
Jordan's Principle, 2016
Jurisdictional issues surrounding access to healthcare services
Non-Insured Health Benefits (NIHB)

Colonial history
Assimilation and cultural genocide in Canada
Colonial history of Canada
Indian Act of Canada, 1876
Indian Residential Schools
Indigenous health inequity
Indigenous resilience
Protective defiance
Royal Commission on Aboriginal Peoples (RCAP), 1996
Sixties Scoop
Truth and Reconciliation Commission of Canada (TRC), 2015
United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), 2007

Foundational concepts
Anti-oppression
Anti-racism
Bias, discrimination and prejudice (explicit and implicit)
Colonialism/postcolonialism
Conflict resolution
Human rights
Power, privilege and oppression
Reflection about one's culture, attitudes and beliefs
Social determinants of health
Treaty rights

Indigenous epistemologies
Indigenous worldviews/perspectives & ways of knowing
Health priorities of local Indigenous communities
Traditional healing/medicine
Two-Eyed Seeing

Practice approaches
Cultural awareness
Cultural competence
Cultural humility
Cultural responsiveness
Cultural safety
Indigenous capacity building
Indigenous community development
Professional allyship with Indigenous Peoples
Trauma-informed care

1. Are there other content areas (not listed above) which are:

a) Relevant to the relationship between Canadians and Indigenous Peoples in Canada,

AND

b) Included in your PT program?

- (•) Yes
- ( ) No

reset

Please add them to this list.
How many content areas would you like to add? 1 ▼

Additional content area 1:

Thinking of your PT program, please answer the following 3 questions:

2. How many courses currently contain any of the above-listed content areas?
(if your program uses a competency-based approach, how many courses use teaching and learning strategies that prepare students for working with Indigenous Peoples?) 1 ▼

Please list the course name(s):

Name of Course 1:

3. Are there plans to **add** any of the above-listed content areas to the curriculum?

- (•) Yes
- ( ) No
- ( ) Not sure

reset

Please briefly describe:

Expand

4. Is there an Indigenous content curriculum map?

- (•) Yes
- ( ) No
- ( ) Not sure

reset

Please describe:

Expand

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Questionnaire

Section 2 Course 1 Information

For the course _____ please answer the following 10 questions:

1. What is the course code/number?

2. What is the course description?

(we encourage you to copy-paste directly from the course syllabus)

Expand

3. When in the program is the course offered?

- Bachelor - First year
- Bachelor - Second year
- Bachelor - Third Year
- Master - First year
- Master - Second year

reset

4. Is the course mandatory or elective?

- Mandatory
- Elective

reset

5. For content areas listed below **which are contained in this course**, how many **teaching hours** are dedicated to each?

(please leave blank those content areas which are not contained in this course)

(if hours are allocated to groups of content areas, this can be clarified during the interview)

Access to services	Indigenous Services Canada	# of teaching hours
	Jordan's Principle, 2016	# of teaching hours
	Jurisdictional issues surrounding access to healthcare services	# of teaching hours
	Non-Insured Health Benefits (NIHB)	# of teaching hours

Colonial history	Assimilation and cultural genocide in Canada	# of teaching hours
	Colonial history of Canada	# of teaching hours
	Indian Act of Canada, 1876	# of teaching hours
	Indian Residential Schools	# of teaching hours
	Indigenous health inequity	# of teaching hours
	Indigenous resilience	# of teaching hours
	Protective defiance	# of teaching hours
	Royal Commission on Aboriginal Peoples (RCAP), 1996	# of teaching hours
	Sixties Scoop	# of teaching hours
	Truth and Reconciliation Commission of Canada (TRC), 2015	# of teaching hours
	United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), 2007	# of teaching hours
Foundational concepts	Anti-oppression	# of teaching hours
	Anti-racism	# of teaching hours
	Bias, discrimination and prejudice (explicit and implicit)	# of teaching hours
	Colonialism/postcolonialism	# of teaching hours
	Conflict resolution	# of teaching hours
	Human rights	# of teaching hours
	Power, privilege and oppression	# of teaching hours
	Reflection about one's culture, attitudes and beliefs	# of teaching hours
	Social determinants of health	# of teaching hours
	Treaty rights	# of teaching hours

Indigenous epistemologies	Indigenous worldviews/perspectives & ways of knowing	# of teaching hours
	Health priorities of local Indigenous communities	# of teaching hours
	Traditional healing/medicine	# of teaching hours
	Two-Eyed Seeing	# of teaching hours
Practice approaches	Cultural awareness	# of teaching hours
	Cultural competence	# of teaching hours
	Cultural humility	# of teaching hours
	Cultural responsiveness	# of teaching hours
	Cultural safety	# of teaching hours
	Indigenous capacity building	# of teaching hours
	Indigenous community development	# of teaching hours
	Professional allyship with Indigenous Peoples	# of teaching hours
	Trauma-informed care	# of teaching hours

Are there other content areas (not listed above) which are:

- Yes
- No

a) Relevant to the relationship between Canadians and Indigenous Peoples in Canada,

AND

b) Included in this course?

reset

6. Which **learning outcomes** are associated with the content areas listed in Question 5?

(we encourage you to copy-paste directly from the course syllabus)

Expand

7. What **teaching methods** are used for the content areas listed in Question 5 and/or the learning outcomes listed in Question 6?

(please select all that apply)

- [ ] Case study
- [ ] Clinical elective debriefing
- [ ] Concept mapping
- [ ] Debate
- [ ] Directed reading
- [ ] Discussion, large group
- [ ] Discussion, small group
- [ ] Discussion, web-based
- [ ] Experiential learning (clinical & non-clinical practice opportunities)
- [ ] Interprofessional learning
- [ ] KAIROS Blanket Exercise
- [ ] Land-based learning
- [ ] Lecture
- [ ] Oral histories (for example, Creation stories)
- [ ] Patient interaction
- [ ] Patient testimonial
- [ ] Personal reflexive journal
- [ ] Problem-based learning
- [ ] Quiz
- [ ] Role play
- [ ] Simulation, mannequin-based
- [ ] Simulation, simulated patients
- [ ] Student presentation
- [ ] Talking Circle
- [ ] Video
- [ ] Workshop
- [ ] Other (please specify)

8. What **assessment methods** are used for the content areas listed in Question 5 and/or the learning outcomes listed in Question 6?

(please select all that apply)

- ☐ Case study
- ☐ Debriefing
- ☐ Discussion, web-based
- ☐ Essay
- ☐ Exam, long answer
- ☐ Exam, multiple-choice or true/false
- ☐ Exam, open book
- ☐ Exam, short answer
- ☐ Group project
- ☐ Objective structured clinical examination (OSCE)
- ☐ Oral examination
- ☐ Oral presentation
- ☐ Portfolio
- ☐ Reflexive assignment
- ☐ Self-assessment
- ☐ Standardized tool(s) (please specify)
- ☐ Other (please specify)
- ☐ None

9. Is any portion of this course taught outside of a traditional physiotherapy program lecture, seminar, or laboratory environment? (e.g. a site visit)

- ○ Yes
- ○ No
- ○ Not Sure

reset

10. Are any Indigenous persons involved in teaching any of this content?

- ○ Yes
- ○ No
- ○ Not Sure

reset

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Questionnaire

Section 3

Thinking of the content related to Indigenous Peoples within your PT program, please answer the following 9 questions:

1. How was this content developed?

   (e.g. research evidence, lived experience, community involvement, etc)

Expand

2. For content that is **planned**, how will it be developed?

   (e.g. research evidence, lived experience, community involvement, etc)

Expand

3. How were Indigenous persons and/or Indigenous communities involved in the development process of this content?

Expand

4. For content that is **planned**, how will Indigenous persons and/or Indigenous communities be involved in its development process?

Expand

5. When was this content developed?

Expand

6. How has this content evolved over time?

Expand

7. For content that is **planned**, when will it be developed?

Expand

8. What have been the facilitators **in these development processes**?

Expand

9. What have been the barriers **in these development processes**?

Expand

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Questionnaire

Section 4

1. Thinking of the content related to Indigenous Peoples within your PT program, what has prompted its development and/or evolution over time?

   (e.g. students, clinicians, faculty, program or institution initiatives, accreditation, social factors, etc)

Expand

2. Thinking of the content related to Indigenous Peoples that is **planned** for your PT program, what is prompting its development?

   (e.g. students, clinicians, faculty, program or institution initiatives, accreditation, social factors, etc)

Expand

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Appendix B – Recruitment Email 1 in English

Subject line: Recruitment for a study exploring Canadian physiotherapy curricula

Dear Dr. [program director name],

My name is Lisa Arcobelli and I am a physiotherapist and a graduate student in the Master's in Rehabilitation Science Program at the School of Physical and Occupational Therapy of McGill University, under the supervision of Dr. Aliki Thomas.

My Master's thesis consists of a study exploring how Canadian physiotherapy curricula are changing to reflect the priorities of Indigenous Peoples and their communities. Specifically, I am interested in what curricula are currently in use or planned, how these curricula have been developed and evolved over time, including barriers and facilitators, and what the drivers for these changes have been. I am soliciting the participation of one faculty member from each of the 15 Canadian physiotherapy programs to participate in a questionnaire-based semi-structured interview. During the interview, participants will be asked to discuss content areas related to Indigenous Peoples contained within courses in the program, as well as the processes and drivers for the development of these content areas. Ideally, the participating faculty member would be the one most knowledgeable about curricular content areas related to Indigenous Peoples (e.g. Indigenous health issues, Indigenous perspectives and ways of knowing, power and privilege, colonialism/postcolonialism, the social determinants of health, conflict resolution, anti-racism, cultural humility, cultural safety, resilience, and allyship) in their respective institutional program.

To this end, I would like to request your assistance in identifying the faculty member in your program best suited to participate in this study. This person might be yourself, a Curriculum Chair, or another faculty member. If you would be willing to provide this person's name and email address, I will be happy to contact them to invite them to participate in this study. If you are able to respond to this email within the next week, this would be greatly appreciated.

Thank you for your assistance in this research project.

Sincerely,

Lisa

Lisa Arcobelli, PT, MSc student
School of Physical and Occupational Therapy | McGill University
Center for Interdisciplinary Research in Rehabilitation of Greater Montreal (C.R.I.R)
Lisa.Arcobelli@mail.mcgill.ca

Aliki Thomas, OT(c), erg., PhD
Associate Professor | School of Physical and Occupational Therapy | McGill University
Associate Member | Institute of Health Sciences Education | McGill University
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(514) 398-4496

Appendix C – Recruitment Email 1 in French

Ligne de sujet: Recrutement pour étude explorant les cursus de physiothérapie canadiens

Dr(e). [nom de directeur de programme],

Je m'appelle Lisa Arcobelli et je suis physiothérapeute et étudiante à la maîtrise à l'école de physiothérapie et d'ergothérapie de l'Université McGill sous la supervision de Pre. Aliki Thomas, erg. PhD.

Ma thèse de maîtrise consiste à explorer la manière donc les cursus de physiothérapie canadiens changent pour refléter les priorités des Peuples Autochtones et leurs communautés. Je m'intéresse 1) aux cursus déjà en place ou en développement; 2) à la façon donc ces cursus ont été développés et ont évolué avec le temps; 3) aux facteurs qui ont facilité ou nuit au développement des cursus; et 4) ce qui a suscité ces changements. Je sollicite la participation d'un membre du corps professoral de chacun des 15 programmes de physiothérapie canadiens pour participer à une entrevue semi-structurée basée sur un questionnaire. Durant l'entrevue, les participants seront invités à échanger sur le contenu pédagogique relié aux Peuples Autochtones de leur programme, aux processus de développement de ce contenu et de ce qui a suscité ces développements. Idéalement, le membre du corps professoral participant serait celui ou celle qui est le plus informé sur le contenu relié aux Peuples Autochtones (par exemple: la santé Autochtone, les perspectives et modes de connaissance Autochtones, le pouvoir et le privilège, colonialisme/postcolonialisme, les déterminants sociaux de la santé, la résolution des conflits, l'anti-racisme, l'humilité culturelle, la sécurité culturelle, la résilience, et l'alliance solidaire) de leur programme.

À cette fin, je sollicite votre aide pour identifier le membre du corps professoral de votre programme qui serait le mieux placé pour participer à cette étude. Cette personne pourrait être vous-même, le président du comité du programme, ou un autre membre du corps professoral. Si vous pouvez partager avec moi le nom et l'adresse courriel de cette personne, il me fera plaisir de communiquer avec il ou elle pour l'inviter à participer à cette étude. Si vous êtes en mesure de répondre à ce courriel dans la prochaine semaine, ça serait grandement apprécié.

En vous remerciant pour votre soutient de ce projet de recherche.

Veuillez agréer mes meilleures salutations,

Lisa

Lisa Arcobelli, PT, étudiante MSc
École de physiothérapie et d'ergothérapie | Université McGill
Centre de recherche interdisciplinaire en réadapatation du Montréal métropolitain (C.R.I.R)
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Appendix D – Recruitment Email 2 in English

Subject line: Recruitment for a study exploring Canadian physiotherapy curricula

Dear Dr. [participant name],

My name is Lisa Arcobelli and I am a physiotherapist and a student in the Master's in Rehabilitation Science Graduate Program at the School of Physical and Occupational Therapy of McGill University, under the supervision of Dr. Aliki Thomas

My Master's thesis consists of a study exploring how Canadian physiotherapy curricula are changing to reflect the priorities of Indigenous Peoples and their communities. Specifically, I am interested in what curricula are currently in use or planned, how these curricula have been developed and evolved over time, including barriers and facilitators, and what the drivers for these changes have been. I am soliciting the participation of one faculty member from each of the 15 Canadian physiotherapy programs to participate in a questionnaire-based semi-structured interview. During the interview, participants will be asked to discuss content areas related to Indigenous Peoples contained within courses in the program, as well as the processes and drivers for the development of these content areas. Ideally, the participating faculty member would be the one most knowledgeable about curricular content areas related to Indigenous Peoples (e.g. Indigenous health issues, Indigenous perspectives and ways of knowing, power and privilege, colonialism/postcolonialism, the social determinants of health, conflict resolution, anti-racism, cultural humility, cultural safety, resilience, and allyship) in their respective institutional program.

Dr. [program director name] suggested that I contact you to invite you to participate in this study. If you would like to participate, I will be happy to send you more information, including access to the online questionnaire, the study consent form, and potential dates for scheduling the interview. I will also be happy to answer any questions you may have about this study. If you are able to respond to this email within the next week, this would be greatly appreciated.

Thank you for considering participating in this study, and I look forward to your response.

Sincerely,

Lisa

Lisa Arcobelli, PT, MSc student
School of Physical and Occupational Therapy | McGill University
Center for Interdisciplinary Research in Rehabilitation of Greater Montreal (C.R.I.R)
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Appendix E – Recruitment Email 2 in French

Ligne de sujet: Recrutement pour étude explorant les cursus de physiothérapie canadiens

Dr(e). [program director name],

Je m'appelle Lisa Arcobelli et je suis physiothérapeute et étudiante à la maîtrise à l'école de physiothérapie et d'ergothérapie de l'Université McGill sous la supervision de Pre. Aliki Thomas, erg. PhD.

Ma thèse de maîtrise consiste à explorer la manière donc les cursus de physiothérapie canadiens changent pour refléter les priorités des Peuples Autochtones et leurs communautés. Je m'intéresse 1) aux cursus déjà en place ou en développement; 2) à la façon donc ces cursus ont été développés et ont évolué avec le temps; 3) aux facteurs qui ont facilité ou nuit au développement des cursus; et 4) ce qui a suscité ces changements. Je sollicite la participation d'un membre du corps professoral de chacun des 15 programmes de physiothérapie canadiens pour participer à une entrevue semi-structurée basée sur un questionnaire. Durant l'entrevue, les participants seront invités à échanger sur le contenu pédagogique relié aux Peuples Autochtones de leur programme, aux processus de développement de ce contenu et de ce qui a suscité ces développements. Idéalement, le membre du corps professoral participant serait celui ou celle qui est le plus informé sur le contenu relié aux Peuples Autochtones (par exemple: la santé Autochtone, les perspectives et modes de connaissance Autochtones, le pouvoir et le privilège, colonialisme/postcolonialisme, les déterminants sociaux de la santé, la résolution des conflits, l'anti-racisme, l'humilité culturelle, la sécurité culturelle, la résilience, et l'alliance solidaire) de leur programme.

Dr(e). [nom du directeur de programme] a suggéré de vous contacter pour vous inviter à participer à cette étude. Si vous êtes intéressé(e) à participer, il me fera plaisir de vous acheminer de plus amples informations, telles que l'accès au questionnaire en ligne, le formulaire de consentement de l'étude, et des dates potentielles pour l'entrevue. Il me fera également plaisir de répondre à toutes questions au sujet de l'étude. Si vous êtes en mesure de répondre à ce courriel dans la prochaine semaine, ça serait grandement apprécié.

Je vous remercie de considérer cette invitation. En attendant votre retour, je vous souhaite une excellente journée.

Veuillez agréer mes meilleures salutations,

Lisa

Lisa Arcobelli, PT, étudiante MSc
École de physiothérapie et d'ergothérapie | Université McGill
Centre de recherche interdisciplinaire en réadapatation du Montréal métropolitain (C.R.I.R)
Lisa.Arcobelli@mail.mcgill.ca

Aliki Thomas, OT(c), erg., PhD
Professeure agrégée | École de physiothérapie et d'ergothérapie | Université McGill
Membre associé | Institut d'éducation en sciences de la santé | Université McGill
Centre de recherche interdisciplinaire en réadapatation du Montréal métropolitain (C.R.I.R)
Aliki.Thomas@mail.mcgill.ca
(514) 398-4496

Appendix F – Consent Form in English

CONSENT FORM

Canadian Physiotherapy Curricula and Indigenous Peoples

Research Team

Lisa Arcobelli, PT, BSc (Masters Student) - McGill University; **Aliki Thomas**, OT, PhD (Research Supervisor) - McGill University; **Janine Metallic**, PhD (Supervisory Committee) - McGill University; **Moni Fricke**, BMR(PT), PhD (Supervisory Committee) - University of Manitoba.

Introduction

We are asking you to participate in a research project involving Canadian physiotherapy (PT) program faculty members. Before agreeing to participate in this project, please take the time to read and carefully consider the following information. This consent form explains the aim of this study, the procedures, advantages, risks and inconveniences, as well as the person to contact, if necessary. We invite you to ask any questions that you deem useful to the student, Lisa Arcobelli, or to the research supervisor, Dr. Aliki Thomas, OT, PhD, and to ask her/them to explain any information that is not clear to you.

Description of the Study and Study Purpose

This study aims to explore how Canadian PT curricula are changing to reflect the priorities of Indigenous Peoples and their communities. In order to conduct this study, we are inviting one faculty member from each Canadian PT program most knowledgeable about this content area to participate in a questionnaire-based semi-structured interview.

Nature of Your Participation

You are invited to take part in this study by participating in a questionnaire-based semi-structured interview.

Access to the interview questions via an online platform will be provided to you at least one week in advance of the interview. You may consult with colleagues and/or curricular documents to collect the pertinent information, which you may enter into the online platform in advance or you may share it during the interview.

You may access the interview questions as often as you choose, at a time and place of your convenience, and on a computer of your choice. You may also enter or modify information in any section of the online platform at any time. You will have access to the online platform until the day of the interview.

You will be asked to identify courses within your PT program, current or planned, within which content related to Indigenous Peoples is taught, as well as number of teaching hours, learning outcomes, teaching methodologies, and assessment methods associated with that content. You will also be asked to discuss the development and evolution processes of identified courses and content areas, as well as barriers, facilitators, and drivers in these processes.

If this information is available within your program's curricular maps or course syllabi, you are welcome to provide these and allow us to extract the required information. We will then review this with you during the interview.

The interview will be conducted by the student, Lisa Arcobelli, either in person or by video conference, at a time of your convenience, and should last approximately 60 to 90 minutes. The interview will be digitally recorded and transcribed verbatim.

In the months following the interview, you may be invited to provide feedback on preliminary results of the study via email.

Personal Benefits from Participating in the Research Study

You may personally benefit from participating in this study by having the opportunity to reflect on the current or planned curricula related to Indigenous Peoples in your program, as well as how and why these curricula came to be developed. Insights gained through such reflection may inform further refinement or future development of such curricula.

Risks Associated with Participating in the Research Study

The risk involved in participating in this research study is negligible. It is understood that your participation in the study will not affect your roles and responsibilities at your workplace or the state of employment at your institution.

Inconveniences Associated with Participating in the Research Study

Possible inconveniences of participating in this study may include some fatigue as well as time investment associated with collecting pertinent information and participating in the interview.

Confidentiality

Any and all personal and institutional/program information gathered on the online platform and during the interview will be de-identified and coded to ensure its confidentiality. Only the student, Lisa Arcobelli, and the research supervisor, Dr. Aliki Thomas, will have access to it. However, for research project control purposes, your research record could be consulted by a person mandated by the Institutional Review Board of McGill University's Faculty of Medicine or by the *Direction de l'éthique et de la*

qualité du ministère de la Santé et des Services sociaux du Québec. This person adheres to a policy of strict confidentiality.

The research data, written notes and audio recordings of the interviews (on digital voice recorder) will be kept under lock and key at McGill University by the project supervisor, Dr. Aliki Thomas, for a period of seven years following the end of the project, after which it will be destroyed. In the event that the results of this study are presented or published, no information that can identify you or your institution/program will be included. Direct verbatim quotations (anonymized) from the interview may be included in presented or published results.

Voluntary Participation and Withdrawal of the Participant in the Research Study

Your participation in this research study is completely voluntary. It is understood that you can, at any time, put an end to your participation without this affecting your employment. You may decline to answer any question in the interview which you do not want to answer, without negative consequence. If you choose to withdraw from the study, the written, electronic, and audio recorded information collected from you will be destroyed if that is your decision.

Statement on Ethical Considerations

The present study will be conducted according to ethical principles stated in the Declaration of Helsinki (2008), ethics approval will be obtained before initiating the study, and consent forms will take into consideration the well-being, free-will, and respect of the participant, including respect of privacy.

Responsibility Clause

While agreeing to participate in this study, you do not give up any of your legal rights, nor release the researchers, sponsors or institutions involved of their legal and professional obligations.

Compensatory Indemnity

There is no compensatory indemnity in this study.

Contact person

If you have any questions regarding the research study or wish at any point to withdraw your participation, you may contact Lisa Arcobelli via email at lisa.arcobelli@mail.mcgill.ca or Dr. Aliki Thomas, OT, PhD at (514) 398-4496 or via email at aliki.thomas@mcgill.ca, at any time. This project has been approved by the McGill University's Faculty of Medicine Institutional Review Board. If you have any questions about your rights as a project participant, or any questions about the research or any adverse event, you may contact or Ms. Ilde Lepore, Senior Ethics Administrator at (514) 398-8302.

Consent

I acknowledge that I have read this consent form. I understand this study, the nature and extent of my participation, as well as the benefits and risks/inconveniences to which I will be exposed as presented in this form. I have been given the opportunity to ask questions concerning any aspects of the study and have received answers to my satisfaction.

I, the undersigned, voluntarily agree to take part in this study. I am aware that I can withdraw from the study at any time without any prejudice of any kind. I certify that I have had sufficient time to consider my decision to participate in this study. I acknowledge that by consenting to take part in this study, I do not give up any of my legal rights.

A signed copy of this consent form will be given to me by email or a mail.

_____ _____

NAME OF PARTICIPANT (print) SIGNATURE OF PARTICIPANT

Signed at _____ on _____, 20_____

CITY & PROVINCE MONTH & DAY YEAR

Responsibility of the Researcher

I, the undersigned, _____, certify
(print)

(a) having explained to the research participant the terms of this form
(b) having answered all the questions he/she has asked in this regard
(c) having clearly indicated that he/she remains free, at any time, to end his/her participation in the above described research study
(d) that I will give him/her a signed copy of this form

_____

Signature of researcher or representative

Signed at _____ on _____, 20_____

CITY & PROVINCE MONTH & DAY YEAR

Appendix G – Consent Form in French

FORMULAIRE DE CONSENTEMENT

Les cursus de physiothérapie canadiens et les Peuples Autochtones

Équipe de recherche

Lisa Arcobelli, pht, BSc (Étudiante à la maîtrise) – Université McGill; **Aliki Thomas**, erg, PhD (Directrice de recherche) - Université McGill; **Janine Metallic**, PhD (Comité de thèse) - Université McGill; **Moni Fricke**, BMR(PT), PhD (Comité de thèse) - Université de Manitoba.

Introduction

Nous vous invitons à participer à un projet de recherche qui cible les membres du corps professoral des programmes de physiothérapie canadiens. Avant d'accepter de participer à ce projet, veuillez prendre le temps de lire les renseignements qui suivent et de bien y réfléchir. Ce formulaire de consentement explique le but de l'étude, les procédures, et les avantages, risques et inconvénients qui s'y rattachent ; il fournit aussi les coordonnées des personnes avec qui communiquer au besoin. Nous vous invitons à contacter l'étudiante, Lisa Arcobelli, ou la directrice de recherche, Pre. Aliki Thomas, erg, PhD, pour toute question ou clarification par rapport aux informations qui ne vous sont pas claires.

Description et raison d'être de l'étude

Cette étude consiste à explorer la manière donc les cursus de physiothérapie canadiens changent pour refléter les priorités des Peuples Autochtones et leurs communautés. Pour atteindre cet objectif, nous invitons un membre du corps professoral de chacun des programmes de physiothérapie canadiens à participer à une entrevue semi-structurée basée sur un questionnaire.

Nature de votre participation

Nous vous invitons à participer à cette étude en participant à une entrevue semi-structurée basée sur un questionnaire.

Accès aux questions d'entrevue sur une plate-forme en ligne vous sera fourni au moins une semaine avant l'entrevue. Vous pourrez consulter vos collèges et/ou des documents pédagogiques pour recueillir les informations pertinentes, et les inscrire sur la plate-forme en ligne avant l'entrevue ou nous les fournir durant l'entrevue.

Vous pourrez accéder aux questions d'entrevue aussi souvent que vous voudrez, à un moment et endroit de votre convenance, et sur un ordinateur de votre choix. Vous pourrez aussi inscrire et modifier toute information sur la plate-forme en ligne en tout temps. Vous aurez accès à la plate-forme en ligne jusqu'à ce que l'entrevue soit terminée.

Nous vous demanderons d'identifier les cours dans votre programme de physiothérapie, déjà en place ou en développement, qui contiennent du contenu relié aux Peuples Autochtones, le nombre d'heures d'enseignement dédiés a ce sujet, les objectifs d'apprentissage, les méthodes pédagogiques utilisées pour enseigner ce contenu ainsi que les méthodes d'évaluation. Nous vous demanderons aussi de discuter des processus de développement et de changement des cours et des contenus identifiés, des barrières et facilitateurs associes au développement de ce contenu, et des facteurs qui ont motivé ces changements.

Si cette information se trouve dans le cursus de votre programme ou dans des plans de cours, nous vous invitons à les partager avec nous. Nous recueillerons les informations pertinentes et réviserons ensuite ces informations avec vous durant l'entrevue.

L'entrevue, qui sera d'une durée de 60 à 90 minutes, sera réalisée par l'étudiante, Lisa Arcobelli, en personne ou par conférence vidéo, à un moment qui vous convient, et devrait. L'entrevue sera enregistrée numériquement et transcrite textuellement.

Dans les mois qui suivent l'entrevue, vous pourriez être invité(e) à partager par courriel vos rétroactions sur les résultats préliminaires de l'étude.

Avantages personnels de la participation à cette étude de recherche

Votre participation à cette étude pourrait vous bénéficier personnellement en suscitant des réflexions par rapport au contenu pédagogique de votre programme de physiothérapie relié aux Peuples Autochtones, ainsi qu'à comment et pourquoi ce contenu fut développé. Vos réflexions pourraient mener au raffinement et/ou au développement futur de ce contenu dans votre programme.

Risques associés à la participation à cette étude de recherche

Les risques associés à la participation à cette étude sont négligeables. Votre participation à cette étude n'affectera pas votre fonction ou vos tâches de travaille, ni votre situation d'emploi là où vous travaillez.

Les inconvénients associés à la participation à cette étude de recherche

Les inconvénients possibles associés à la participation à cette étude peuvent inclure de la fatigue, ainsi que le temps investi à recueillir les informations pertinentes et à participer à l'entrevue.

Confidentialité

Toute information personnelle et institutionnelle recueillie sur la plate-forme en ligne et durant l'entrevue sera anonymisée et codée pour assurer sa confidentialité. Seul l'étudiante, Lisa Arcobelli, et la directrice de recherche, Pre. Aliki Thomas, y auront accès. Cependant, pour des raisons de contrôle de la recherche, les données recueillies pourraient être consultées par une personne mandatée par le Comité d'éthique de

la Faculté de Médecine de l'Université McGill ou par la Direction de l'éthique et de la qualité du Ministère de la Santé et des Services sociaux du Québec. Cette personne adhère à une politique de confidentialité stricte.

Les données de recherche, notes écrites, et enregistrements audios de l'entrevue (sur enregistreur de voix électronique) seront gardés sou clé à l'Université McGill par la directrice de recherche pendant les sept années qui suivront la fin de l'étude, après quoi ils seront détruits selon les politiques et procédures de l'Université. Aucune information confidentielle qui pourrait vous identifier ou identifier votre institution d'emploi ne sera inclue dans la présentation ou publication des résultats de cette étude. Des citations tirées directement de la transcription, et anonymisées, pourraient être inclues dans la présentation ou publication des résultats de cette étude

Participation volontaire et retrait de la participation à l'étude

Votre participation à cette étude de recherche est complètement volontaire. Vous pouvez en tout temps mettre fin à votre participation sans que ceci affecte votre situation d'emploi. Vous êtes libre de choisir de ne pas répondre à toute question de l'entrevue, sans conséquence. Si vous choisissez de mettre fin à votre participation à l'étude, toute information écrite, électronique, et audio enregistré que vous auriez fourni sera détruite si vous le désirez.

Déclaration sur les considérations éthiques

Cette étude sera menée selon les principes éthiques déclarées dans le *Declaration of Helsinki* (2008), l'approbation éthique sera obtenue avant de commencer l'étude, et les formulaires de consentement prendront en considération le bien-être, la libre volonté, et le respect du participant, y compris le respect de la vie privée.

Clause de responsabilité

En acceptant de participer à cette étude, vous ne renoncez à aucun de vos droits selon la loi et vous ne libérez pas de leurs obligations juridiques et professionnelles les chercheurs, partenaires ou institutions qui y participent.

Indemnité compensatoire

Il n'y aucune indemnité compensatoire dans cette étude.

Renseignements sur les personnes à contacter

Si vous avez des questions sur l'étude ou si vous désirez vous retirer de l'étude, vous pouvez contacter l'étudiante, Lisa Arcobelli, par courriel à lisa.arcobelli@mail.mcgill.ca ou la directrice de recherche, Pre. Aliki Thomas, erg, PhD, par téléphone au (514) 398-4496 ou par courriel à aliki.thomas@mail.mcgill.ca, à n'importe quel moment. Ce projet a été approuvé par le Comité d'éthique de la Faculté de Médecine de l'Université McGill. Si vous avez des questions sur vos droits à titre de participant à l'étude, des

préoccupations au sujet de l'étude ou de tout effet indésirable, vous pouvez communiquer avec Pre. Aliki Thomas au coordonnées mentionnées ci-dessus ou avec Mme Ilde Lepore, administratrice principale, Éthique, au (514) 398-8302.

Consentement

Je confirme avoir lu ce document d'information. Je comprends cette étude, la nature et la portée de ma participation, ainsi que les avantages ou risques/inconvénients auxquels je pourrais m'exposer tels qu'ils sont décrits dans ce document. J'ai eu l'occasion de poser des questions sur tous les aspects de cette étude et j'ai reçu des réponses satisfaisantes.

En tant que soussigné(e), j'accepte volontairement de participer à cette étude. Je sais que je peux me retirer de l'étude en tout temps, sans préjudice de quelque nature que ce soit. Je certifie avoir eu le temps de réfléchir à ma décision de participer à cette étude. Je confirme qu'en acceptant de participer à cette étude, je ne renonce à aucun de mes droits selon la loi.

Une copie signée de ce formulaire sera numérisée et me sera transmise par courriel ou par la poste.

_____ _____

NOM DU PARTICIPANT (caract. d'imprimerie) SIGNATURE DU PARTICIPANT

Signé à _____ le _____, 20_____

VILLE & PROVINCE MOIS & JOUR ANNÉE

Responsibilité de la chercheuse

Je, soussignée, _____, certifie
(caractères d'imprimerie)

(a) avoir expliqué au participant les termes de ce formulaire
(b) avoir répondu à toutes ses questions posées à ce sujet
(c) avoir clairement expliqué qu'il(elle) pouvait en tout temps mettre fin à sa participation à l'étude décrite dans le présent document
(d) avoir indiqué que je lui remettrai une copie signée et datée de ce formulaire

_____

Signature de la chercheuse ou de son mandataire

Signé à _____ le _____, 20_____

VILLE & PROVINCE MOIS & JOUR ANNÉE