

On Becoming a 'Good' Physiotherapist

By

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Abstract

For many students with marginalized social identities, physiotherapy education can be an unwelcome place. It has been historically shaped by people who are white, able-bodied, and from higher social classes. Recent movements within Canada are calling for a greater focus on social justice in physiotherapy educational programs. This dissertation offers a step towards deepening our understanding of the experiences of physiotherapy students developing their professional identity and what is needed to enact the profession's espoused dedications to equity, inclusion and anti-oppressive practices.

This thesis links three manuscripts from two research studies. Using a multimodal critical discourse analysis of professional physiotherapy websites, the first study identifies dominant discourses of the 'ideal' physiotherapist as represented by public-facing professional organizations. The second describes a case study utilizing Bourdieu's Theory of Practice. Learning from physiotherapy students with marginalized identities, this project examines how the field of physiotherapy education creates unearned advantages and disadvantages for students with different backgrounds, capital and dispositions. The third explores how the arts-informed method of hand-mapping influenced the content and group interactions within focus groups of physiotherapy students.

The findings indicate that significant challenges remain for the profession, necessitating continued action. Public professional websites do not yet represent their organizations' stated dedication to justice, equity, diversity, inclusion and anti-oppression; they foreground whiteness, hetero/cissexism and a dominance of private practice

physiotherapy. These discourses frame physiotherapists as invulnerable and position the field as neoliberal and capitalist. This framing aligns with the findings from the second study, which highlights forms of valued capital in physiotherapy education; a ‘good’ physiotherapy student is one with the capacity for full, uninterrupted focus on their education, unhindered by health, religious or financial obligations. The third study found that the method of hand-mapping facilitated open dialogue in focus group research with these students, which can be beneficial for further research.

This dissertation confirms that the physiotherapy educational institutions and professional organizations must change the rigid conditions of participation and the representation of physiotherapy to accurately reflect the profession’s current and future environment. This will help realize their stated commitments to equity, inclusion and anti-oppressive practices.

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Dedication

To my mom and dad, who taught me to work hard and to not take myself too seriously.

And to play pinochle.

“Getting there is half the fun. Come share it with me.”

Kermit the Frog

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List of Abbreviations

2SLGBTQIA+	Two-spirit, lesbian, gay, bisexual, transgender, queer/questioning, intersex, asexual and related identities
BIPOC	Black, Indigenous, and People of Colour
CDA	Critical discourse analysis
DPT	Doctor of physical therapy
MPT	Master of physical therapy
OT	Occupational therapy
PID	Professional identity development
PIF	Professional identity formation
PT	Physiotherapist

A note on terminology – ‘physical therapy’ and ‘physiotherapy’ are used interchangeably colloquially and in the literature, as are ‘physical therapist’ and ‘physiotherapist’. I have chosen to use the terms physiotherapy and physiotherapist in my writing, as these are more common in Canada.

Chapter One: Introduction

Background

A gentle knock on my office door pulls me away from my work. I open the door, and a student is there, looking timid, asking, “Do you have a moment? There are a few of us that want to speak to you.” I follow him into a nearby seminar room, curious, to find four other students sitting around a large modular table. I know all these students from my role as their instructor, some better than others. Three of them are white, and two are racialized, which becomes relevant when I hear the topic that brought them to seek my counsel. The group is concerned about a recent event with their fellow classmates that makes them uncomfortable. They feel that the event, which occurred outside of class time, at minimum displays an unintentional racist micro-aggression, and at its worst, displays outright racism. I feel a mix of emotions upon hearing their concerns. I have the sense of this being a defining moment in the making. I must be very careful and thoughtful with my responses. I feel anxious with them regarding the incident. I feel a sense of responsibility to navigate the concern appropriately, and a sense of pride that they trusted me enough to bring this to me. I am also acutely aware of my whiteness¹. These are physiotherapists (PTs) in training, and they depend on me to help guide them in their professional journey.

¹ Contrary to the [APA Style](#) to capitalize the first letter of a race, I have chosen to not capitalize white (and use a lower case ‘w’) as the capitalization follows the practice of white supremacists. I acknowledge that Black and First Nations, Inuit and Métis people each have a shared sense of identity, history and culture (and use an uppercase on the first letter), as per the [Columbia Journalism Review](#).

I am a physiotherapy educator, identifying with most of the social categories that society and our profession have deemed valuable. I am white, from a middle-class upbringing, agnostic, educated, cis-gendered, able-bodied, and heterosexual, all of which are social identities that bestow upon me privileges that I did not earn. I am a woman in a female-dominated profession. I am also wife to a non-white partner, and mother to mixed-race children. Each of these social identities have influenced me and my journey and continue to do so. I engage in my research with the goal of critical allyship in mind, a term that Nixon (2019) uses to describe “a reorientation from the dominant way of thinking about how people in positions of privilege should address inequities” (p. 7). This includes investigating the taken for granted systems of power that are structural, and that “play out through institutions like science, health care, and education” (Nixon, 2019, p. 9). I offer this as an introduction to self-reflexivity, which I explore in depth later in this thesis.

A story

I use my recollection of the event described at the opening of this work to illustrate a moment in my personal journey where the influence and power that I have as a privileged educator was at the forefront of my thinking. I think about one of the students in this group, the non-white woman. The rest of her identities I have created as a work of fiction: let’s say she is a bit reserved, not particularly sporty, and has a chronic health issue. I imagine her considering physiotherapy as a career when she is in high school or in her undergraduate degree. She is exposed to the profession through some part of her past – her own journey through an injury, or maybe a relative who experienced physiotherapy through an illness. She begins to imagine herself enjoying this career. She looks online to find out more: will

she see people like her in physiotherapy? Her life becomes almost singularly focused. ‘Get good grades, save money’ are mantras she recites to herself. She applies to a physiotherapy program, and to her surprise and joy, she is accepted. How does she start to feel like a PT? What is my role, as one of her instructors, in shaping her professional identity, along with other physiotherapy students? How does the event, described earlier, and similar incidents mold her journey, as well as the journey of the others in this small group and that of the larger group? How many more similar situations did she, and will she, face in her journey to becoming a PT? How does she see herself becoming a ‘good’ PT? This imagining started me on my journey for my doctoral work.

The purpose of my thesis was to investigate the development of professional identity for students with marginalized identities within physiotherapy education: how public representative practices and lived experiences before and during physiotherapy education may influence this. Relatedly, and taking a reflexive stance towards my research, I aimed to explore the impact of my methodological choice of employing an arts-informed method on the focus groups discussions.

My doctorate has, at its core, an interest in identity: both existing social identities and how professional identity develops in relation to them, within the field of physiotherapy. In this introductory section I first discuss identity, conceptually, before introducing the development of professional identity. Next, I turn to published research on what has been studied on professional identity development (PID) in physiotherapy and in health professional education more broadly. Following this literature review, I discuss what is already known about what defines a ‘good’ PT from existing research. Finally, I

explore how marginalized social identities have been researched (or not) in physiotherapy literature.

Understanding identity

Identity is a “multi-dimensional classification or mapping of the human world and our places in it, as individuals and as members of collectivities” (Jenkins, 2014, p. 5). As a classification process, identification has a hierarchical structure that is dependent on context and on personal and social interactions (Burford, 2012; Jenkins, 2014). This means that identification is never free from biases, therefore it is not a neutral process (Jenkins, 2014). Identification can be thought of as having both internal and external components. Self-identification is the internal component and leads to personal identity. Categorization by others is the external component, leading to social identity. Personal and social identities are interwoven, at times influencing each other and at other times conflicting, and are often difficult to separate (Jenkins, 2014). In social identities, individuals are classified into groups based on shared physical, social, or mental characteristics (e.g., gender, ethnicity, nationality, leisure activities) (Burford, 2012). Professional identity is considered to be a type of social identity (Burford, 2012), given its identity reflects a socially recognized group membership.

Professional identity development in a critical paradigm

Becoming a professional requires trainees to explore their new-found identity, through experimenting with “ways of being or relating in a professional context” (Goldie, 2012, p. 1). Built on the confluence of educational or professional training, the individual’s

personal lived experience, and membership in the professional group, PID is a continual, iterative process. The importance of a focus on PID in health professional education is well established (Johnson et al., 2012; Mackey, 2007). To engage health professional students meaningfully regarding their professional identity, educators need to understand the formation of professional identity, and to comprehend some of the forces dominating this process. These forces include historical systems of inequality.

PID in the educational program moves beyond the overt curriculum to include implicit ways of learning and teaching (Balmer et al., 2015). Often there are practices or teachings that are delivered without thought to the ideological/cultural assumptions that drive them, or to the power relations that may be present and to whose interests these serve (Gibson & Teachman, 2012). Characteristics of a ‘good’ professional are cultivated through influence, and through social processes (Wagner & Jackson, 2021). These influences are not always obvious or explicit. Using a critical paradigm to inform research on PID allows for the exploration of those unspoken hierarchical conventions that lead to power imbalances and oppression and therefore opens avenues to work to change them (Kivunja & Kuyini, 2017). The qualitative process applying a critical paradigm lens highlights those whose experiences have been marginalized, or erased, and looks to explore the forces leading to this oppression (Giacomini, 2012).

Applying a critical paradigm positions the research within issues of social justice and looks to investigate power structures and social oppression. Research in this paradigm is “interested in empowerment and removing oppressive structures” (Kivunja & Kuyini, 2017, p. 38) for those around whom the research is centred. The critical paradigm

holds at its core an emancipatory goal leading to the “levelling [of] power relations” (Giacomini, 2012, p. 9) and social transformation (Kivunja & Kuyini, 2017).

A scoping review and meta-synthesis of the PID (using the term used synonymously in the literature, professional identity formation or PIF) research in medicine, nursing and counselling/psychology found an absence of attention to the role of race, gender, sexual orientation, class, or age (Volpe et al., 2019). The authors state,

By excluding these considerations from PIF studies, an assumption is made that the professional identity being formed is one of a member of the hegemony: an upper middle class white male. The scholarship on PIF inappropriately treats this person as neutral, when, in fact, they are not. (p. 127)

Volpe and colleagues encourage future qualitative work to explore how diverse learners develop professional identity, and how their experiences compare to those from the dominant professional culture. This call for critical work in PID co-exists with a similar appeal for the profession of physiotherapy to explore critical approaches to research. PTs writ large are encouraged to increase proficiency in critical analysis to “identify ways to mitigate unintended harms” (Nixon et al., 2017, p. 250). Stenberg et al. (2021) concur: “It is of great importance that physiotherapists are aware of these different power structures *in clinical practice*” (p. 8) (original italics). Together, these varied calls for critical research create an invitation to critically analyze PID in physiotherapy.

Research into PID in teacher education and in health professional education has shown that it is a dynamic, non-linear process situated within a larger social context

(Duran & Jones, 2019; Goldie, 2012; Johnson et al., 2012; Pillen et al., 2013). Studies in nursing show that professional identity is linked to self-concept, or how we think and feel about ourselves, as well as occupational identity (Johnson et al., 2012). Formation of professional identity occurs prior to entering nursing education, throughout the educational process and evolves through nurses' careers (Johnson et al., 2012). The professional training period is a key period during which students form their professional identity (Johnson et al., 2012). PID is foundational in health professional education and is encouraged to be part of the curriculum (Cruess et al., 2019). However, a recent scoping review looking at research on pre-registration curriculum in physiotherapy education found no standardized guidelines for teaching students about professional identity (Rappazzo et al., 2022).

Research on PID is sparse in physiotherapy. My profession has been criticized for the heavy emphasis on the biomedical approach, where the physical functioning of the biomechanical body is the sole focus (Nicholls, 2018). Such a narrow approach in physiotherapy and in professional education “misses the value of enabling critical reflection on one's place in and contributions to society in a more emancipatory way” (Bulley et al., 2025, p. 171). The dominant way of thinking also places the PT as the gatekeeper to knowledge and the patient as the docile recipient (Gilliland & Brown, 2020). Students who approach their profession through this model will consequently have a reductionist view of their role as a PT, leaving little room for integrating novel teaching and learning about their practice that does not fit within this approach (Gilliland & Brown, 2020). In their work on American Doctor of Physical Therapy (DPT) students' understanding

of their physiotherapy practice, Gilliland and Brown (2020) investigate how DPT students' views on the purpose of the physiotherapy encounter, the patient's role and the "attention to movement" (p. 307), or the category of the International Classification of Functioning², change throughout their educational program. They found that earlier in their program, DPT students are strongly positioned in the biomedical model of care and tend to move towards broader understandings of their role near the end of their program. They acknowledge that students develop this differently in their program, and that future research could explore "what development may be intrinsic as a student moves through foundational didactic education, versus what development may be extrinsically facilitated through various program cultural factors or variations in clinical experiences" (Gilliland & Brown, 2020, p. 311). I see these 'extrinsically'-mediated factors as including the often taken-for-granted social hierarchies, where whiteness, high socioeconomic status, masculinity and able-bodiedness (among others) exist at the top, that a critical approach could explore - an approach that was not applied in Gilliland and Brown's research. In their work, there is no understanding of who these students are, or to which social groups they belong. I am left wanting to explore deeper and broader questions about physiotherapy students' experiences and beliefs, and what they feel has influenced these.

Other PID research discusses how PTs' views on professional learning are influenced throughout their career. In their narrative analysis with Swedish PTs with over 10 years of experience, Pettersson et al. (2015) investigated how these PTs develop and

² <https://www.who.int/standards/classifications/international-classification-of-functioning-disability-and-health>

Categories move from disease process, body function, activity limitations and participation restrictions.

learn after their formal education. While this is not directly applicable to students' learning within their educational setting, some of the findings resonate with potential learning and growth within students. They found that PTs' learning and development is influenced by tackling challenges, by drawing on their previous experience or values when faced with new views and knowledge, and by their interactions with patients, which they call, "hundreds of educators" (Pettersson et al., 2015, p. 400). While students do not have hundreds of patients/clients acting as educators to draw upon as in Pettersson et al. (2015), the other findings may be transferable to or resonant with students. But how exactly are previous experiences and values constructed, and what influences this construction?

Learning from and with patients is part of the contextual factors that influence PID in PTs. Hammond et al. (2016) investigated how PTs in public practice develop their professional identity in the UK, reporting their PID is "fluid across time and place, co-constructed within changing communities of practice" (p.1). While this research was not in the critical paradigm, the authors do note that institutional beliefs and values, discourses, and structural hierarchies influenced the PTs' professional identities. It is reasonable to extend this to physiotherapy students' PID; that within their education, their PID changes across time and through different experiences, influenced by the educational institution and dominant discourses of the profession.

Shifting attention from practicing PTs with years of experience to students' perspectives, other research investigating physiotherapy students' formation of professional identity has looked to describe their experiences, without critical appraisal.

Work by Barradell et al. (2018) uses a phenomenological approach to explore how Australian physiotherapy students experience and understand the practice of physiotherapy, where practice is defined as “the collective, purposeful knowing, doing and being of a community” (Barradell et al., 2018, p. 387). They developed six themes on what physiotherapy students see as the professions’ ways of thinking and practicing, and how they experience these. The themes are worded by the authors into ‘ways of thinking’ statements. The statement “Develop an autonomous, respected and lively sense of self and the profession” (Barradell et al., 2018, p. 399) demonstrates students’ ideas about PID. The authors state that students develop professional identity from pre-existing knowledge of the profession, through their patient interactions, through being part of the community of physiotherapy and from working inter-professionally. While this is one of the few studies looking at physiotherapy educational programs through the perspective of the students who experience it, the research does not integrate attention to issues of power or influence on these students. Similar to other studies, little is known about the 13 students they interviewed, barring their gender (3 male, 10 female, unknown if other options on gender were given) and international student status (seemingly a proxy measure to race and/or ethnicity, with none identified as such in the study).

Using a qualitative phenomenographic design, Lindquist et al. (2006) categorize British and Swedish physiotherapy students into types of professional identities based on their reflections on patient interactions near the end of their educational journey. Eighteen students were asked the same question to begin the interview, to speak about a patient that “sticks in their mind” (Lindquist et al., 2006, p. 271). Based on their responses, the

authors then categorize the students in the identities of “the Empowerer, the Educator and the Treater” (Lindquist et al., 2006, p. 272). This framework is based on “preferred working context, view of time, understanding of role, view of knowledge and learning and in level of collaboration with other health care staff” (Lindquist et al., 2006, p. 272). The process for data analysis is unclear. The key argument, however, that individual physiotherapy students perceive professional identity differently, deserves further investigation.

The ideas presented thus far are echoed in the meta-synthesis conducted by Rappazzo et al. (2022), which includes a selection of the articles already discussed above. Looking to peer-reviewed English language articles about physiotherapy students’ PID, they constructed five themes on the components of the educational curriculum that assisted students in their PID. They state that the professional identity of physiotherapy students is “expressed” by their self-identity, the skills they acquire, the curricula, the program, and the location of the learning (Rappazzo et al., 2022, p. 5).

A systematic review and narrative synthesis of PID in allied health from Australia (Lewis et al., 2025) found similar categories of factors that influenced students’ PID. These are places, people and practices, each acting on the person themselves. Lewis and colleagues (2025) deem ‘places’ to be where learning occurred either in the classroom or in the workplace. ‘Places’ having crucial influence were clinical education (practicum placements) and through curriculum content in the classroom. People included role models, faculty, practicum supervisors and peers with whom the learner interacts. Practices that influenced PID included reflection, experiencing challenges, interprofessional education and teaching approaches.

Neither of these reviews meaningfully address the call by Volpe and colleagues (2019) to consider how diverse learners develop professional identity, and how their experiences compare to those from the dominant professional culture. The review by Rappazzo et al. (2022) lacks details on the students' pre-existing social identities and fails to examine with a critical viewpoint the influences of the location of the learning (e.g., the university environment), or the players who deliver the curriculum. The synthesis and narrative review by Lewis et al. (2025) mentions "students with a different ethnicity or cultural background to the majority culture (and therefore classroom culture) had a different professional identity formation process" (Lewis et al., 2025, p. 32). They also state that programs should provide personalized support to students from minoritized cultures who are conceptualizing their professional identity within a majority culture. The nature of this 'different process' or the personalized supports were not described, leaving a meaningful absence in the exploration of PID.

Understanding the influences that mold and construct how PID is formed, in the places, people, practices and person is key to broadening our understanding in this nascent area of research in the profession. Much of the work described can be categorized as addressing procedural aspects of PID in physiotherapy, or the 'who, what, when and where.' The absence of attention given to the 'why' is apparent in the literature to date.

The 'good' physiotherapist

Uncovering the taken-for-granted assumptions on what defines a 'good' PT supports an increased understanding of potential and current students' journey towards and within the profession. Whitehead et al. (2013) asked a similar question in the field of

medicine. They describe the influence of the discourse of the ‘good’ doctor when examining historical medical texts: “How a *good doctor* is conceptualized determines who is more likely to be accepted to medical school (personal and academic prerequisites) and who does well in medical school and residency training (shaping how students are assessed)” (Whitehead et al., 2013, p. 695) (original italics). The same can be said for physiotherapy: constructions of the ‘good’ PT influence who enters the profession and their progress within their educational program.

Kleiner et al. (2021) explored the physiotherapy literature using an integrative review methodology, revealing that in musculoskeletal physiotherapy, a ‘good’ PT is portrayed as someone who balances the qualities of a proficient technical clinician with human ways of being and interacting with people. They identified these human qualities as being responsive, ethical, communicative, and caring (Kleiner et al., 2021). A qualitative systematic review and meta-synthesis examining the musculoskeletal PT-patient interaction supports the concept of a ‘good’ PT being able to balance practical skills with good interpersonal skills and effective communication (O’Keeffe et al., 2016). Yet in an observational study with follow-up qualitative interviews featuring Norwegian physiotherapy students, a ‘good’ PT is perceived as one who is ‘sporty,’ a filter students apply to examine their and others’ fit for the profession. Layered within this sportiness is a gender intersection; students shared a propensity for ‘hyper-sporty’ men to be considered the most suitable for the profession, differentiated from ‘ordinary-sporty’ men by their increased involvement in sport (Dahl-Michelsen, 2014). These studies seem in opposition when considering what students perceive to be qualities of a ‘good’ PT (hyper-sporty male)

and what PTs and patients believe (proficient technician with good interpersonal skills). It is possible that these differences can be attributed to the differing methodologies; when students are observed or interviewed directly, their responses may be less ‘filtered’. To gather a fulsome understanding of the ‘good’ PT, we need to explore the underlying assumptions surrounding the concept.

Exploring the concept of a ‘good’ PT and PID with the lens of critical inquiry helps to examine what is underpinning our usual practice. This process allows researchers to “...examine everyday practices and ask why they persist, whose interests they serve, what power relations are at play, and what assumptions underpin their ongoing acceptance” (Gibson & Teachman, 2012). Critical research can explore deeper questions about what being a ‘good’ PT means in consideration of issues regarding historical trajectories of power and privilege within the educational program and the profession. To date, few studies have considered race/racialization, gender, class, sexuality and/or other marginalized social identities in the profession of physiotherapy and in students’ PID. A meta-ethnography in medicine is an example of research that explores race and ethnicity, yet absent in this work is the compounding impact of education on PID at the intersection of multiple systems of inequality, or intersectionality (Wyatt et al., 2021). In the absence of critical work specific to PID, the literature on marginalization in physiotherapy can support the need for further critical exploration of PID in physiotherapy.

Marginalized social identities in physiotherapy research

Marginalized social groups are “those that have been historically disenfranchised and therefore experience systemic inequality; that is, they have operated with less power than have systemically privileged groups” (Coe & Griffin, 2020, p. 2). People with marginalized social identities are an integral part of the profession of physiotherapy, both as clinicians and patients. However, there is friction in the profession when it comes to how PTs perceive and behave towards people with marginalized identities.

Evidence exists that patients with marginalized identities seeking physiotherapy services experience stigmatization regarding the social construct of their gender. A patient’s gender identity influenced how health care professionals in Sweden, including PTs, communicated with those with neck and back pain and also what treatment interventions were recommended (Stenberg et al., 2014). Issues regarding gender extend into the organizational context, where physiotherapy is positioned as a profession with a “gender regime”, defined as, “an overrepresentation of women professionals while the men professionals, as a group, have more power both at the organizational level and in high-status professions within the organization” (Stenberg et al., 2021, p. 5). This gender regime influenced Swedish PTs’ professional role and choices during their career (Stenberg et al., 2021). Nicholls (2018) suggests that physiotherapy “...may be the first female-dominated health profession in the world to adopt an androcentric model of practice” (p. 16). Androcentrism is defined as “beliefs and associated practices that center males and male experiences as the norm for humanity” (Vries, 2017, p. 64). Nicholls’

(2018) study traces how, to gain legitimacy in the nascence of our profession, early PTs (who were women) modeled their practice on the male-dominated field of medicine. This ensured the success of the profession in its early and developing stages, and has continued to be the ontological approach, perhaps to the profession's detriment (Nicholls, 2018). Criticism in medical education literature similarly describes the curriculum as being "habitually formed through the discourse of patriarchy" (Bleakley, 2013, p. 66). In medical education, gendered experiences are shown to influence the development of students' professional identity (Brown et al., 2020).

A lack of racial and ethnic diversity in the profession of physiotherapy is evident, with an historical and contemporary predominance for white people (Wegrzyn et al., 2021; Yeowell, 2013). In the United Kingdom, in 2013, the proportion of students from Black and Minority Ethnic (BME) backgrounds in physiotherapy programs (10%) was less than both the national population of BME people (14% for England and Wales) and the number of BME students in all university courses (18%) (Yeowell, 2013). In Canada, qualitative work with Black PTs and physiotherapy students found the profession to be a "white space" (Wegrzyn et al., 2021, p. 2), meaning that the field has been constructed by white people, and that the profession centers whiteness, including in educational programs (Wegrzyn et al., 2021). Canadian physiotherapy's orientation to whiteness limits both the entry of Black people into the profession and their mobility once practicing (Wegrzyn et al., 2021). This finding resonates with another qualitative study on racialized PTs in Canada (Vazir et al., 2019), which centered the perspectives of self-identified Indigenous (n=2) and Black or Brown (n=10) PTs. Otubusen and Lurch (2024) conducted an analysis on the work by

Wegrzyn et al. (2021) and applied the frameworks of critical race theory and critical race feminism. They found that the “conspicuous absence of Black representation in Canadian PT [physiotherapy] schools may serve as a testament to racial realism” (Otubsen & Lurch, 2024, p.8), or the structural perpetuation of Black subjugation within Western institutions. Additionally, they describe the physiotherapy educational system to be a “hostile racial climate” that hampers Black physiotherapy students from thriving (Otubusen & Lurch, 2024). The British and Canadian studies encourage entry-level programs in physiotherapy to make explicit issues regarding race to recognize “certain inherited processes and ways of doing that are assumed to be more legitimate or valuable than others” (Wegrzyn et al., 2021, p. 13), and to advocate equitable access to professional programs for prospective racialized students (Vazir et al., 2019).

Another of the few critical qualitative studies with racialized PTs is one from Australia conducted with Muslim women physiotherapy students. The study found that the women experienced a lack of belonging in their educational programs (Jang et al., 2024). The authors highlight students’ concerns that the training conflicted with their beliefs, that physiotherapy was seen as a culturally inappropriate profession for Muslim women and that “Aussie” culture was dominant in the student environment. “Aussie” culture included shared social experiences focused on alcohol and physical proximity across genders (Jang et al., 2024). This is one of the few studies that mentions intersectionality as a concept, in relation to the participants’ identities. However, intersectionality studies focus on how intersecting systems disadvantage the individuals and the larger social group at the nexus (Cho et al., 2013). As Homan et al. (2021) state in their work researching health disparities,

intersectionality shows how systems of oppression “such as racism, sexism, and classism are interlocking, mutually constituted and reinforcing” (p. 350). Jang et al. (2024) appear to have conceptualized intersectionality only as it relates to participants’ identities, without exploring the broader systemic considerations in the research. This lack of belonging experienced by the Muslim women students is likely to negatively affect the development of their professional identity.

Overall, physiotherapy literature lacks research on how marginalized (or dominant) social identities influence PID. While studies on a single axis of oppression such as race or gender are rare, analysis of intersectionality and its impact on PID is virtually non-existent. For example, in a critical review of the literature surrounding PID of minority physicians, Wyatt et al. (2021) found an absence of research investigating intersectionality. They suggest that future research would benefit from a critical framework to explore how historically underrepresented groups uniquely develop their professional identity in medicine (Wyatt et al., 2021). Work exploring Indigenous nursing students’ experiences identified how their multiple marginalized identities amplified the forms of oppression they experienced in their educational program (Martin & Kipling, 2006). Intersectionality as an approach presents opportunities for exploring a broader consideration of identity, as it allows for the complex understanding of both an individual’s lived experience and the overlapping influences of social inequality, such as white supremacy, patriarchy, classism, and ableism (Hankivsky & Christoffersen, 2008).

The profession of physiotherapy asserts that their foundation is based on the ethical principles of beneficence and justice. The professional association’s code of ethics

states that PTs are responsible to “refrain from harassment, abuse or discrimination of colleagues, employees, or students” (Canadian Physiotherapy Association, 2022). It is therefore imperative to explore the taken-for-granted assumptions shaped by longstanding systems of inequality that exist in physiotherapy and that continue to shape the PID of students.

Rationale for this thesis

The following three manuscripts will help to inform leaders in physiotherapy including our professional associations, physiotherapy educators, and researchers of health professional education about existing social identities of PTs, and how inequities in the field of physiotherapy shape professional identity in relation to these social identities. In the first study, “Right Profession?”, I analyzed public-facing physiotherapy professional websites in Canada to examine the profession’s self-portrayal and the influences this may have on potential applicants into physiotherapy educational programs. The findings from this study are corroborated in the second study, “Becoming Good”. This second study shifts the focus from the potential students in “Right Profession?” to actual students in Canadian physiotherapy educational programs. I investigate how students with multiple marginalized social identities conceptualized their PID within the context of a profession that has been historically grounded in whiteness and patriarchal systems and is potentially not welcoming to varied social identities due to a failure to reckon with how systems of inequality become embedded in education. The multiple methods for this study included one-on-one interviews, reflective journaling, and virtual focus groups with the arts-

informed approach of hand-mapping. The third paper, “The Helping Hand”, explores the arts-informed method of hand-mapping and how its use in the virtual focus groups influenced the content of the discussion and the group interactions surrounding PID. Taken as a whole, the research follows physiotherapy students with multiple marginalized identities - potential and actual students - chronologically through their educational journey, including their involvement in research to understand the influences that shape their PID.

Contribution of authors

Throughout this thesis, I have written in the first person and will switch between singular (e.g., ‘I’ and ‘my’) and plural pronouns (e.g., ‘we’ and ‘our’). The use of the plural is to capture the contributions of other authors to the research, used in the three manuscripts. I am the primary author for the three manuscripts and the sole author for the other chapters in this thesis. My lead supervisor, Dr. Patty Thille, made substantial contributions to the design, data collection, analysis and interpretation of data for all three papers. She critically revised all drafts and gave approval for the final versions. My co-supervisor, Dr. Sandra Webber, and committee member Dr. Christen Rachul, each made substantial contributions to the design, data collection, analysis and interpretation of data for “Right Profession?”, as well as provided edits to the drafts and approved the final version. Dr. Clea Schmidt provided critical edits to the whole thesis. My entire committee, those mentioned above and Dr. Charlotte Enns, contributed intellectually to the

conception and design of all three papers. This categorization of authorship is from the [Manitoba Centre for Health Policy](#).

References for Chapter One

- Balmer, D. F., Quiah, S., DiPace, J., Paik, S., Ward, M. A., & Richards, B. F. (2015). Learning across the explicit, implicit, and extra-curricula: An exploratory study of the relative proportions of residents' perceived learning in clinical areas at three pediatric residency programs. *Academic Medicine*, 90(11), 1547–1552. <https://doi.org/10.1097/ACM.0000000000000755>
- Barradell, S., Peseta, T., & Barrie, S. (2018). 'There's so much to it': The ways physiotherapy students and recent graduates experience practice. *Advances in Health Sciences Education: Theory and Practice*, 23(2), 387–406. <https://doi.org/10.1007/s10459-017-9804-z>
- Bleakley, A. (2013). Gender matters in medical education. *Medical Education*, 47(1), 59–70. <https://doi.org/10.1111/j.1365-2923.2012.04351.x>
- Brown, M., Hunt, G., Hughes, F., & Finn, G. (2020). 'Too male, too pale, too stale': A qualitative exploration of student experiences of gender bias within medical education. *BMJ Open*. <https://doi.org/10.1136/bmjopen-2020-039092>
- Bulley, C., Jagadamma, K. C., Culpan, J., & Lane, J. V. (2025). Belonging and identity in physiotherapy. In P. Thille, C. Hebron, R. Galvaan, & K. S. Groven (Eds.), *Inviting movements in physiotherapy: An anthology of critical scholarship* (pp. 166–189). Critical Physiotherapy Network and College of Rehabilitation Sciences, University of Manitoba. <https://doi.org/10.82231/S8HA-YK54>
- Burford, B. (2012). Group processes in medical education: Learning from social identity theory. *Medical Education*, 46(2), 143–152. <https://doi.org/10.1111/j.1365-2923.2011.04099.x>
- Canadian Physiotherapy Association. (2022). *Code of Ethical Conduct*. Canadian Physiotherapy Association. Retrieved February from <https://physiotherapy.ca/cpa-code-ethics>
- Cho, S., Crenshaw, K. W., & McCall, L. (2013). Toward a field of intersectionality studies: Theory, applications, and praxis. *Signs: Journal of Women in Culture and Society*, 38(4), 785–810. <https://doi.org/10.1086/669608>
- Coe, K., & Griffin, R. A. (2020). Marginalized identity invocation online: The case of president Donald Trump on Twitter. *Social Media + Society*, 6(1). <https://doi.org/10.1177/2056305120913979>
- Cruess, S. R., Cruess, R. L., & Steinert, Y. (2019). Supporting the development of a professional identity: General principles. *Medical Teacher*, 41(6), 641–649. <https://doi.org/10.1080/0142159x.2018.1536260>
- Dahl-Michelsen, T. (2014). Sportiness and masculinities among female and male physiotherapy students. *Physiotherapy Theory and Practice*, 30(5), 329–337. <https://doi.org/10.3109/09593985.2013.876692>
- Duran, A., & Jones, S. R. (2019). Using intersectionality in qualitative research on college student identity development: Considerations, tensions, and possibilities. *Journal of College Student Development*, 60(4), 455–471. <https://doi.org/10.1353/csd.2019.0040>

- Giacomini, M. (2012). Theory matters in qualitative health research. In I. L. Bourgeault, R. Dingwall, & R. G. De Vries (Eds.), *Handbook of qualitative methods in health research*. SAGE.
- Gibson, B. E., & Teachman, G. (2012). Critical approaches in physical therapy research: Investigating the symbolic value of walking. *Physiotherapy Theory and Practice*, 28(6), 474–484. <https://doi.org/10.3109/09593985.2012.676936>
- Gilliland, S. J., & Brown, T. F. (2020). Doctor of physical therapy students' developing understanding of physical therapy practice: A longitudinal study. *Journal of Physical Therapy Education*, 34(4), 305–312. <https://doi.org/10.1097/JTE.0000000000000159>
- Goldie, J. (2012). The formation of professional identity in medical students: Considerations for educators. *Medical Teacher*, 34(9), e641–e648. <https://doi.org/10.3109/0142159X.2012.687476>
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. Denzin & S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). SAGE publications.
- Hammond, R., Cross, V., & Moore, A. (2016). The construction of professional identity by physiotherapists: A qualitative study. *Physiotherapy*, 102(1), 71–77. <https://doi.org/10.1016/j.physio.2015.04.002>
- Hankivsky, O., & Christoffersen, A. (2008). Intersectionality and the determinants of health: A Canadian perspective. *Critical Public Health*, 18(3), 271–283. <https://doi.org/10.1080/09581590802294296>
- Homan, P., Brown, T. H., & King, B. (2021). Structural intersectionality as a new direction for health disparities research. *Journal of Health and Social Behavior*, 62(3), 350–370. <https://doi.org/10.1177/00221465211032947>
- Jang, S., Costa, N., Rusinga, A., & Setchell, J. (2024). Exploring physiotherapy education in Australia from the perspective of Muslim women physiotherapy students. *Physiotherapy Theory and Practice*, 40(9), 2150–2159. <https://doi.org/10.1080/09593985.2023.2230597>
- Jenkins, R. (2014). *Social identity* (4 ed.). Taylor & Francis Group.
- Johnson, M., Cowin, L. S., Wilson, I., & Young, H. (2012). Professional identity and nursing: Contemporary theoretical developments and future research challenges. *International Nursing Review*, 59(4), 562–569. <https://doi.org/10.1111/j.1466-7657.2012.01013.x>
- Kivunja, C., & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education*, 6(5), 26–41. <https://doi.org/10.5430/ijhe.v6n5p26>
- Kleiner, M. J., Kinsella, E. A., Miciak, M., Teachman, G., McCabe, E., & Walton, D. M. (2021). An integrative review of the qualities of a ‘good’ physiotherapist. *Physiotherapy Theory and Practice*, 39(1), 89–116. <https://doi.org/10.1080/09593985.2021.1999354>
- Lewis, A., Jamieson, J., & Smith, C. A. (2025). Professional identity formation in allied health: A systematic review with narrative synthesis. *Teaching and Learning in Medicine*, 37(1), 24–40. <https://doi.org/10.1080/10401334.2023.2290608>

- Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2024). Paradigmatic controversies, contradictions, and emerging confluences, revisited. In N. K. Denzin, Y. S. Lincoln, M. D. Giardina, & G. S. Cannella (Eds.), *The SAGE handbook of qualitative research* (6 ed., pp. 75–112). SAGE publications.
- Lindquist, I., Engardt, M., Garnham, L., Poland, F., & Richardson, B. (2006). Physiotherapy students' professional identity on the edge of working life. *Medical Teacher*, 28(3), 270–276. <https://doi.org/10.1080/01421590600605272>
- Mackey, H. (2007). Do not ask me to remain the same: Foucault and the professional identities of occupational therapists. *Australian Occupational Therapy Journal*, 54(2), 95–102. <https://doi.org/10.1111/j.1440-1630.2006.00609.x>.
- Martin, D. E., & Kipling, A. (2006). Factors shaping Aboriginal nursing students' experiences. *Nurse Education Today*, 26(8), 688–696. <https://doi.org/10.1016/j.nedt.2006.07.013>
- Nicholls, D. (2018). *The end of physiotherapy*. Routledge.
- Nixon, S. A. (2019). The coin model of privilege and critical allyship: Implications for health. *BMC Public Health*, 19(1), 1637–1637. <https://doi.org/10.1186/s12889-019-7884-9>
- Nixon, S. A., Yeung, E., Shaw, J. A., Kuper, A., & Gibson, B. E. (2017). Seven-step framework for critical analysis and its application in the field of physical therapy. *Physical Therapy*, 97(2), 249–257. <https://doi.org/10.2522/ptj.20160149>
- O'Keeffe, M., Cullinane, P., Hurley, J., Leahy, I., Bunzli, S., O'Sullivan, P. B., & O'Sullivan, K. (2016). What influences patient-therapist interactions in musculoskeletal physical therapy? Qualitative systematic review and meta-synthesis. *Physical Therapy*, 96(5), 609–622. <https://doi.org/10.2522/ptj.20150240>
- Otubusen, O., & Lurch, S. (2024). Examining anti-Blackness in Canadian physiotherapy education using critical race theory and critical race feminism as theoretical perspectives. *Journal of Humanities in Rehabilitation*, 1–18.
- Pettersson, A., Bolander, K., & Fjellström, L. M. (2015). Physiotherapists' stories about professional development. *Physiotherapy Theory and Practice*, 31(6), 396–402. <https://doi.org/10.3109/09593985.2015.1024804>
- Pillen, M., Beijaard, D., & den Brok, P. (2013). Tensions in beginning teachers' professional identity development, accompanying feelings and coping strategies. *European Journal of Teacher Education*, 36(3), 240–260. <https://doi.org/10.1080/02619768.2012.696192>
- Rappazzo, L., Seagrave, S., & Gough, S. (2022). Forming and shaping of professional identity within pre-registration physiotherapy curricular: A scoping review. *Nurse Education Today*, 109, 1–32. <https://doi.org/10.1016/j.nedt.2021.105250>
- Stenberg, G., Fjellman-Wiklund, A., & Ahlgren, C. (2014). 'I am afraid to make the damage worse' - fear of engaging in physical activity among patients with neck or back pain - a gender perspective. *Scandinavian Journal of Caring Sciences*, 28(1), 146–154. <https://doi.org/10.1111/scs.12043>
- Stenberg, G., Fjellman-Wiklund, A., Strömbäck, M., Eskilsson, T., From, C., Enberg, B., & Wiklund, M. (2021). Gender matters in physiotherapy. *Physiotherapy Theory and Practice*, 1–14. <https://doi.org/10.1080/09593985.2021.1970867>

- Tracy, S. J. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative Inquiry*, 16(10), 837–851.
<https://doi.org/10.1177/1077800410383121>
- Vazir, S., Newman, K., Kispal, L., Morin, A. E., Mu, Y. Y., Smith, M., & Nixon, S. (2019). Perspectives of racialized physiotherapists in Canada on their experiences with racism in the physiotherapy profession. *Physiotherapy Canada*, 71(4), 335–345.
<https://doi.org/10.3138/ptc-2018-39>
- Volpe, R. L., Hopkins, M., Haidet, P., Wolpaw, D. R., & Adams, N. E. (2019). Is research on professional identity formation biased? Early insights from a scoping review and metasynthesis. *Medical Education*, 53(2), 119–132.
<https://doi.org/10.1111/medu.13781>
- Vries, K. (2017). Androcentrism. In *The SAGE encyclopedia of psychology and gender* (Vol. 4, pp. 64–65). SAGE Publications, Inc. <https://doi.org/10.4135/9781483384269.n27>
- Wagner, A., & Jackson, C. (2021). Developing grit and resilience: Using concurrent learning experiences to deepen attributes of professional identity formation. *New Directions for Teaching and Learning*, 2021(168), 79–88. <https://doi.org/10.1002/tl.20470>
- Wegrzyn, P., Judge, M., Lu, R., & Smith, M. (2021). A reorientation of belief: Considerations for increasing the recruitment of Black students into Canadian physiotherapy programs. *Journal of Humanities in Rehabilitation*, Fall, 1–18.
<https://doi.org/10.18737/0607101054>
- Whitehead, C. R., Hodges, B. D., & Austin, Z. (2013). Dissecting the doctor: From character to characteristics in North American medical education. *Advances in Health Sciences Education: Theory and Practice*, 18(4), 687–699.
<https://doi.org/10.1007/s10459-012-9409-5>
- Wyatt, T. R., Balmer, D., Rockich-Winston, N., Chow, C. J., Richards, J., & Zaidi, Z. (2021). ‘Whispers and shadows’: A critical review of the professional identity literature with respect to minority physicians. *Medical Education*, 55(2), 148–158.
<https://doi.org/10.1111/medu.14295>
- Yeowell, G. (2013). ‘Isn’t it all Whites?’ Ethnic diversity and the physiotherapy profession. *Physiotherapy*, 99(4), 341–346. <https://doi.org/10.1016/j.physio.2013.01.004>

Chapter Two: Situating this thesis in the critical paradigm

A paradigm in research acts as a collective lens through which a group shares assumptions, methodologies, and technical language in their approach to science (Varpio & MacLeod, 2020). Each scientific paradigm will have its own approach to the nature of reality (ontology), to the nature of knowledge and to the relationship between knowledge and the knower (epistemology), to knowledge generation (methodology) and to values (axiology) (Varpio & MacLeod, 2020). My research is grounded in the critical paradigm, aiming to expose systemic power imbalances, foster systemic change, embrace allyship, and promote equity (Paradis et al., 2020). In this chapter, I briefly introduce the focus and core assumptions of the critical paradigm I use, before articulating how my thesis aligns with its tenets. I describe my chosen critical theories' conceptualization of power, and justify how my methodological practices align with these principles, specifically through the practices of reflexivity and methods of representation.

The essential beliefs of a paradigm fall under the categories of ontology, epistemology, methodology and axiology, which are all distinct, but related. The critical ontology posits that reality, including observable patterns of inequality, is formed by historical and contemporary societal structures that are accepted as the status quo, reflecting economic, political, and cultural factors (Illing, 2013; Lincoln et al., 2024; Paradis et al., 2020). The epistemological view in the critical paradigm is that knowledge is

value-mediated, meaning that it is not seen as neutral or objective (Guba & Lincoln, 1994) and that the relationship between the researcher and that being researched is “interactively linked” (Guba & Lincoln, 1994, p. 110). In the critical paradigm, the aim of the inquiry is “critique, transformation, restitution and emancipation” (Lincoln et al., 2024, p. 77). Methodological approaches in critical research facilitate this transformation through both dialogical and dialectical inquiry (Guba & Lincoln, 1994). Dialogical inquiry refers to the transactional nature of research, involving the researcher and participants. This approach empowers efforts for social transformation by using dialogue to illuminate and challenge the systemic causes of injustice (Farias et al., 2019). The researcher seeks to highlight and amplify suppressed historical narratives (Lincoln et al., 2024). Dialectical inquiry involves revising and transforming history through dialogue, looking to replace ‘ignorance’ with more informed insights (Guba & Lincoln, 1994). The primary axiological goals in a critical paradigm are social justice and emancipation to address inequities (Lincoln et al., 2024).

While the critical paradigm provides an overarching framework for research, critical theories offer a way to enact the tenets of the selected paradigm. Critical theory as a term began with a group of scholars known as the Frankfurt School, which began as the Institute for Social Research in Frankfurt, Germany in 1923 (Granter et al., 2019; Paradis et al., 2020). Set amongst the totalitarian regime in Germany at the time and fleeing persecution in Nazi Germany as Jewish Marxists, some of the founding theorists escaped to the United States in the 1930s (Granter et al., 2019). The school’s approach was to develop theories that reinterpreted Marxism within the reality of authoritarianism marked with oppression

and social degradation (Granter et al., 2019). Critical theories have evolved and continue to evolve beyond the Frankfurt School. They are now applied in the social sciences, arts, cultural studies, education, health and more to include such theories as feminist, critical race, queer, and crip (Campbell, 2024; Kincheloe & McLaren, 2011; Paradis et al., 2020). Each provides a social and philosophical framework to examine how the beliefs and structure of society create and perpetuate inequities and oppression (Campbell, 2024; Fassett et al., 2025). Critical theories provide contexts for questioning the world, and approaches for its exploration (Kincheloe & McLaren, 2011).

Critical theory was introduced in health professional education (HPE) in the 1990s (Fassett et al., 2025). In HPE, Kumagai and Wear (2014) argue that sharing critical knowledge is supported by ‘making the familiar strange’, or forcing the audience to “reconsider familiar ideas, situations, and relationships in new and different ways” enabling a “process of alienation and estrangement” that allows new ways of thinking and exploration (Kumagai & Wear, 2014, p. 976). ‘Making strange’ allows for the re-conceptualization of “an otherwise assumed normative phenomenon to understand and/or change it” (Paradis et al., 2020, p. 843). My goal throughout my research has been to examine aspects of physiotherapy and physiotherapy education to make them ‘strange’; to challenge conventional thoughts, behaviours and practices that are often delivered without careful analysis of the assumptions that drive them, or to the power relations driving them, and whose interests those serve (Gibson & Teachman, 2012).

I applied the central tenets of criticality described above throughout my research. Ontologically, I draw attention to the unequal power distributions in the profession of

physiotherapy in Canada, that reflect broader historical and cultural paths. My goal is to raise awareness about these issues with an emancipatory focus to enact change (Paradis et al., 2020). Epistemologically, from a critical perspective all knowledge is situated within historical power relations, and “all scientists are contextually situated” (Paradis et al., 2020, p. 843). Throughout this thesis and in all my doctoral work, I attempt to make explicit that the research I am doing is directly related to my social location and the power and privileges therewithin. This positioning provides some context to my work. I aimed to not just make observations about the profession of physiotherapy and physiotherapy education, but to critique them to achieve change, without claiming authoritative knowledge. The methodological choices I made for my thesis reflect both dialogic and dialectical inquiry. I used dialogue from my interview and focus groups to gain a deeper insight into the lived experiences of my participants. In ‘Becoming Good’ and ‘Helping Hand’, I endeavored to be an active and engaged facilitator, designing probing questions for the interviews and using specific prompts with the hand-mapping in the focus group to press the participants to dig deep when sharing about their experiences, interpreting them in new ways. I applied a dialectic inquiry in my critical examination of the discourse represented on public facing websites in ‘Right Profession?’ by working to “transform ignorance and misapprehensions” (Guba & Lincoln, 1994, p. 110) about how a ‘good’ PT is portrayed. The research looked to explore this portrayal through the lens of social identities and discourses. My entire doctoral journey is situated within the axiological goals of the critical paradigm to challenge the status quo and improve practice (Lincoln et al., 2024).

Advancing justice in physiotherapy education is central in my work. I have approached this research in the spirit of love and respect: for my profession; for the people that have the potential to benefit from it; for those who practice it and for those who teach it. Following Nixon et al. (2017), I use critical theory to “think deeply and carefully about the intended and unintended consequences of our actions, including common practices, ways of speaking, and visual representations, in order to reflect on and mature the profession” (p. 255). My goal is to disseminate my research to help enact change within the profession, contributing to the growing work of critical theory in physiotherapy.

Critical theories of power shaping this thesis

Power relations are central in critical theory, particularly the unequal distribution of power allowing for hierarchical structures that produce privilege and oppression (Paradis et al., 2020). The three critical theories that guide this thesis are Michel Foucault’s concept of discourse, Pierre Bourdieu’s Theory of Practice and Kimberlé Crenshaw’s intersectionality. Theorizing power is central to each scholar.

French philosopher, historian and social theorist Michel Foucault asserts that power and knowledge are interconnected and expressed together. In the essay titled, “Omnes et Singulatim”; The Subject and Power, Foucault states, “...behind all knowledge, behind all attainment of knowledge, what is involved is a struggle for power. Political power is not absent from knowledge, it is woven together with it” (1994, p. 32). Among other contributions, Foucault theorized the concept of discourses and their historical significance, detailing how different discourses in different times produce different

policies, practices and identities (Ainsworth & Hardy, 2004). Nicholls and GradDipPhys, in their work, “Foucault and physiotherapy” (2012) defines discourses as “historically specific ways of thinking, practicing or speaking about things” (p. 448) that are taken-for-granted as true or natural. Foucault’s work has spurred a methodology called discourse analysis, which aims to understand the broader social meaning embedded in and informing any given text.

While some argue that all discourse analysis needs to be critical, because language itself is political (Gee, 2011), critical discourse analysis (CDA) looks specifically at the social practices of language and linguistics to highlight forces that work to build or to reinforce power (Ainsworth & Hardy, 2004; Tannen et al., 2015). It explores ways in which discourse forms social practices and how these practices influence status, power and the distribution of social goods (Gee, 2011). In ‘Right Profession?’, I performed a CDA on public-facing physiotherapy professional websites to analyze their portrayals of a ‘good’ PT, and to interrogate how these discourses reflect status and power within the profession.

Building on the discourses explored in ‘Right Profession?’, I analyzed how power operates within the profession through the lived experiences of physiotherapy students with marginalized identities in my second manuscript, ‘Becoming Good’. To engage in this analysis, I was informed by the work of another French theorist, Pierre Bourdieu. Where Foucault’s theories centre on *discourse*, Bourdieu’s sociological theory centres on *practice*, which Bourdieu theorizes as not only the everyday actions of people, but also the social structures set and defined by the actions of people, based on their particular background and knowledge (Webb et al., 2017). For Bourdieu, power is often a subtle,

invisible mechanism that is present and accepted in these everyday practices and social structures (Wacquant, 2008). Bourdieu's Theory of Practice (1977) provides the framework for examining how social and cultural structures preserve inequities and reproduce hierarchies through everyday activities. For this manuscript, I used Bourdieu's Theory of Practice to analyze what the everyday actions experienced by student PTs reveal about the reproduction of inequities and dominant positions in the field of physiotherapy education.

Bourdieu's theories often include class as the central tenet, but his Theory of Practice has widely been taken up by researchers to engage with identity markers other than class, such as racial (Tichavakunda, 2019; Wacquant, 2024), gender (Lovell, 2000), and disability (Edwards & Imrie, 2003). Webb and colleagues argue for engaging in theoretical expansions that "enable a more nuanced understanding of how complex and intersecting social inequalities" are realized (2017, p. 140). In my second manuscript, 'Becoming Good', I included intersectionality as the second theoretical lens.

Intersectionality is a critical theory that helps interpret the unique experiences of individuals from multiple marginalized identities as they navigate through intersecting oppressive systems (Duran & Jones, 2019). Intersectionality views power not as a solitary force, but as a system of overlapping and interconnected axes of oppression that shape society (Crenshaw, 1991; Duran & Jones, 2019). Kimberlé Crenshaw introduced the term intersectionality in 1989 to highlight the unique experiences of Black women in the legal system in the United States (Cho et al., 2013; Duran & Jones, 2019). Crenshaw argued that viewing Black women's experiences through only one axis of identity, by just focusing on race or sex, does not fully capture the overlapping systems of oppression felt at the

juncture of race *and* sex (Crenshaw, 1991; Duran & Jones, 2019; Homan et al., 2021). By investigating the locus where these axes of oppression converge (or intersect), there is revealed a “completely new status, that is more than simply the sum of its individual parts” (Hankivsky & Christoffersen, 2008, p. 275). Applying intersectionality as a theoretical framework means that I considered multiple systems of inequality at play – such as ableism, racism, sexism, heterosexism, classism, and more - and how they influenced the students’ identity development (Duran & Jones, 2019) within the field of physiotherapy education. Using intersectionality opens the concomitant exploration of the individual and the structures of power, consistent with Bourdieu’s theoretical concepts.

Methodological choices supporting critical commitments

Reflexivity

Researchers reflecting on their own power is fundamental to critical research (Berger, 2015). Reflexivity moves beyond merely reflecting and includes actively participating in critical self-evaluation, internal dialogue and recognition that researchers’ positionality has effects on the outcome and process of the research itself (Berger, 2015). Researchers must critically reflect on themselves as “human instrument[s]” (Lincoln et al., 2024, p. 109) shaping all aspects of the research. In more general frameworks for quality in interpretive research, reflexivity is also understood as important. For example, Tracy (2010), locates reflexivity in *sincerity*, which is understanding and acknowledging that the researcher’s beliefs, goals, errors and joys played a role in the research. By engaging in reflexivity, researchers must be thoughtful in assessing their own strengths and

weaknesses and offering their own values for inspection. In the following paragraphs, I highlight the reflexivity practices that I employed in this thesis: stating my positionality, engaging critical friends, and thinking with others to enhance crystallization.

Positionality

I am a part of many socially dominant groups in Winnipeg, in Canada, and in the profession of physiotherapy specifically. I am a white, cis-gendered, heterosexual, able-bodied female from a middle to high socioeconomic background. I come from a line of strong women and feminists on both sides of my family. I am wife to a non-white partner and mother to mixed-race children. Over the past 26 years, I have worked as a PT, and at the time of the research I worked as a physiotherapy educator with the title of Senior Instructor in the Department of Physical Therapy at the University of Manitoba. I have been an official or unofficial mentor to many physiotherapy students with many different marginalized social identities. I value social justice broadly, and specifically in areas where I feel I may have some emancipatory influence, in physiotherapy and HPE. I also value empowerment by amplifying the voices of students who may have not previously been heard. I recognize that each of my identities and experiences have influenced my insights in this project.

I have strived to be aware of the role that I play within the research and the impact of my own experiences, motivations, intentions and assumptions (Berger, 2015). As both an instructor and researcher of physiotherapy students, I aimed to be transparent with my participants about the real and/or perceived power differentials (Kvale, 2006). To be forthcoming and honest with my participants, I designed and followed a script (Appendix

One) that I delivered while screening potential participants in ‘Becoming Good’ that listed my own identities, and how these identities have provided me with privilege.

Critical friends

To help shed light on my own biases and to deepen my self-reflection, I engaged in the process of recruiting ‘critical friends’, a public engagement strategy which comes from the field of education. The concept is derived from the importance for researchers to “establish collaborative conversations that dig deep, challenge assumptions, and enrich their understanding” (Mat Noor & Shafee, 2020). A critical friend is a “trusted person who is invited to join a [...] research project based on the qualities of knowledge, experience and skills” (Mat Noor & Shafee, 2020, p. 6). Critical friends are neither research participants nor co-researchers; they are peers who can provide honest, constructive and potentially challenging feedback throughout the research project (Campbell et al., 2004).

Five criteria of critical friends are qualities, skills, roles, behaviours, and knowledge and experience (Swaffield, 2005). Qualities for critical friends include mutual trust, which comes from established relationships. The critical friend should have skills that enable strong communication and facilitate analysis and interpretation (Mat Noor & Shafee, 2020). Critical friends are those who have “shared values, a willingness to engage, and an awareness of the task” (Mat Noor & Shafee, 2020, p. 13). For my group of critical friends, I consulted three people with whom I had pre-existing relationships, and who have one or more historically underrepresented identities in physiotherapy³: Priscilla Flett, a Cree PT

³ Each has agreed to be named in my thesis, and they provided their own identity descriptions.

from York Factory First Nation, born and raised in Churchill, Manitoba and a former student I instructed; Cindy Yamamoto, a mixed roots racialized autistic woman, occupational therapist and fellow PhD candidate; and Liv Gardiner, a queer master's student and my niece. I met with each person to discuss the process and their role, and to discuss the recognition of their participation. The knowledge and experience I sought from my critical friends included exposure to physiotherapy education, qualitative research and/or postgraduate education. Priscilla provided guidance for my research ethics application; Cindy reviewed and edited my recruitment material; and Liv piloted the interview with me. I provided each of them with a copy of the findings from my second manuscript, 'Becoming Good', with the caveat that they could provide me with feedback if they desired, but were not obligated to do so. I did not receive any feedback on the findings from my critical friends. I recognized their expertise with monetary compensation.

Thinking with others: crystallization

Recognizing the concerns associated with triangulation in quantitative research, crystallization used in qualitative studies "encourages researchers to gather multiple types of data and employ various methods, multiple researchers, and numerous theoretical frameworks" (Tracy, 2010, p. 844). Rather than proposing a particular truth as triangulation purports to achieve, the goal in crystallization is to further the various complicated understandings of an issue, beyond what one person, or one theorist, might offer. Much like studying the complex shapes found in a crystal, applying multiple methods of analysis to many types of data allows the many facets of the research problem to be studied. This detail presents the complexity of the problem and therefore contributes to a deeper

understanding (Tracy, 2010). The multiple data I collected and created included websites, virtual semi-structured interviews, reflective audiodiaries, virtual focus groups, and hand maps. Members of my committee contributed to authorship on ‘Right Profession?’ and ‘Becoming Good’, and my primary supervisor, Dr. Patty Thille, contributed in most aspects of all the projects, including through reflexive questions and dialogues through data analysis and writing to explore the data in new ways.

I worked within the theoretical assumptions of the critical paradigm described throughout this chapter, and in each project, I applied a substantiating framework to develop the analysis. In the first manuscript, ‘Right Profession?’, I used a CDA, applying Pauwels’ multimodal analysis. The second paper, ‘Becoming Good’, used Pierre Bourdieu’s Theory of Practice as the primary framework. The third paper, or ‘Helping Hand’, adopted a more constructivist orientation to study how meaning making occurred in focus groups through dialogue with an arts-informed method. The critical paradigm can accommodate other types of inquiry, particularly if the additional framework integrates the values of systemic change and dismantling oppression, which is possible to do while working within a constructivist paradigm (Lincoln et al., 2024). Additionally, within constructivism, interactive methods of data collection support shared control of the dialogue among participants and the researchers (Denicolo et al., 2016, Chapter 5), which is also consistent in the critical paradigm.

Methods of representation

Representing research in the critical paradigm can eventuate through many different avenues – from visual and aural to a narrative text and beyond – to “seek to create a social science about human life rather than *on* subjects” (Lincoln et al., 2024, p. 110) (original emphasis). Throughout my thesis, I chose methods of representation that strive to recognize the inherent power dynamics of my research, including transcription and quotation choices, treating my participants as reliable narrators of their own experiences.

My transcription and representation choices allow readers to hear the exact voice of the subjects or data source. For ‘Right Profession?’, I used exact quotes from websites, and I chose to reproduce the images on the websites as closely as possible with my own images to follow copyright laws for publication. In ‘Becoming Good’ and ‘Helping Hand’, I used quotations, including paralinguistic cues such as stops/starts, sighs, and lapses of participants’ speech (Lincoln et al., 2024). My goal was to ensure I represented the data as closely as possible to how it was *presented* to me. This goal was applied even more broadly in my two manuscripts representing my participants.

In treating my participants as reliable narrators of their own experiences, I was careful not to analyze the participants themselves, for example, why they thought or behaved in certain ways, but rather amplify their experiences through my analytic filter. In ‘Becoming Good’, I analyzed the field conditions and capital of physiotherapy education, and in ‘Helping Hand’, I analyzed the content and interactions of the focus groups.

Throughout the thesis, I used the first-person voice in my manuscripts to ensure that the author's voice is present in the research (Lincoln et al., 2018).

Other methodological choices supporting critical commitments

I engaged in additional methodological choices throughout my research to support critical commitments, including during data collection and analysis processes. Applying the method of hand-mapping in 'Helping Hand' was a creative choice to generate data. This approach is informed by arts-based approaches, which are not geared towards finding an objective truth, rather to "promote profound reconsideration of the commonsensical, the orthodox, the clichéd, and the stereotypical" (Barone et al., 2012, p. 3), which aligns with the critical paradigm.

As the "transformative intellectual" (Guba & Lincoln, 1994, p. 110), I was not merely a passive observer in my research. Throughout the entire research process, I engaged in "writing as analysis" (Eakin & Gladstone, 2020, p. 10). As Eakin and Gladstone (2020) state, "...to write is to name a phenomenon (transform it into words), and to name is to conceptualize (express the nature of the phenomenon and its relationship to other phenomenon)" (p. 10). I engaged in writing as analysis through the forms of reflexive journal entries, meeting notes, annotations during data collection and analysis, and even a creative form of writing a poem.

In closing

I close this section of my thesis with offering the poem that I authored while writing my reflexive notes during 'Becoming Good'. I began composing the poem after the first

focus group, capturing my participants' exact words with capitalized letters. I then built on the poem with each subsequent focus group.

This work.
It's
Exhausting. Draining.
I feel the Responsibility
And I must make Boundaries.
I am both loud and quiet. Weak and strong.
Anxious.
But I am Proud.
Of who I am and what I bring to the table.
I remember to be Forgiving.
I remember to Enjoy the Hardship.
It brings me Confidence.
It motivates me. I am Hopeful.
It helps me to make a better version of myself.
I am powerful.

References for Chapter Two

- Ainsworth, S., & Hardy, C. (2004). Critical discourse analysis and identity: Why bother? *Critical Discourse Studies*, 1(2), 225–259.
<https://doi.org/10.1080/1740590042000302085>
- Barone, T., Cahnmann, M., Finley, S., & Saldana, J. (2012). Arts-based research. In L. Given (Ed.), *The SAGE encyclopedia of qualitative research methods*. SAGE Publications, Inc. <https://doi.org/10.4135/9781412963909>
- Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219–234.
<https://doi.org/10.1177/1468794112468475>
- Bourdieu, P., & Nice, R. (1977). *Outline of a theory of practice*. Cambridge University Press.
- Campbell, A., McNamara, O., & Gilroy, P. (2004). Critical friendship, critical community and collaboration. In A. Campbell, O. McNamara, & P. Gilroy (Eds.), *Practitioner research and professional development in education* (pp. 106–124). SAGE Publications Ltd.
<https://doi.org/10.4135/9780857024510.d43>
- Campbell, J. (2024). *Critical theory: Religion and philosophy: Research starters*. EBSCO. Retrieved December 19 from <https://www.ebsco.com/research-starters/religion-and-philosophy/critical-theory#bibliography>
- Cho, S., Crenshaw, K. W., & McCall, L. (2013). Toward a field of intersectionality studies: Theory, applications, and praxis. *Signs: Journal of Women in Culture and Society*, 38(4), 785–810. <https://doi.org/10.1086/669608>
- Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, 43(6), 1241–1299.
<https://doi.org/10.2307/1229039>
- Denicolo, P., Long, T., & Bradley-Cole, K. (2016). *Constructivist approaches and research methods: A practical guide to exploring personal meanings*. SAGE Publications Ltd.
<https://doi.org/10.4135/9781526402660>
- Duran, A., & Jones, S. R. (2019). Using intersectionality in qualitative research on college student identity development: Considerations, tensions, and possibilities. *Journal of College Student Development*, 60(4), 455–471.
<https://doi.org/10.1353/csd.2019.0040>
- Eakin, J. M., & Gladstone, B. (2020). “Value-adding” analysis: Doing more with qualitative data. *International Journal of Qualitative Methods*, 19, 1–13.
<https://doi.org/10.1177/1609406920949333>
- Edwards, C., & Imrie, R. (2003). Disability and bodies as bearers of value. *Sociology*, 37(2), 239–256. <https://doi.org/10.1177/0038038503037002002>
- Farias, L., Laliberte Rudman, D., Pollard, N., Schiller, S., Serrata Malfitano, A. P., Thomas, K., & van Bruggen, H. (2019). Critical dialogical approach: A methodological direction for occupation-based social transformative work. *Scandinavian Journal of Occupational Therapy*, 26(4), 235–245.
<https://doi.org/10.1080/11038128.2018.1469666>

- Fassett, K. T., Sellon, A., Gazza, E. A., Mortha, S., & McLaughlin, J. E. (2025). A rapid review of critical theory in health professions education. *BMC Medical Education*, 25(1), 423–431. <https://doi.org/10.1186/s12909-025-06979-1>
- Foucault, M. (1994). *Power* (J. Faubion, Ed.). The New Press.
- Gee, J. P. (2011). *An introduction to discourse analysis: Theory and method* (3rd ed.). Routledge.
- Gibson, B. E., & Teachman, G. (2012). Critical approaches in physical therapy research: Investigating the symbolic value of walking. *Physiotherapy Theory and Practice*, 28(6), 474–484. <https://doi.org/10.3109/09593985.2012.676936>
- Granter, E., Cunha, M. P., & Clegg, S. (2019). The Frankfurt school and critical theory. In M. P. Cunha & S. Clegg (Eds.), *Management, organizations and contemporary social theory* (1 ed., pp. 223–243). Routledge. <https://doi.org/10.4324/9780429279591-12>
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. Denzin & S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 105–117). SAGE publications.
- Hankivsky, O., & Christoffersen, A. (2008). Intersectionality and the determinants of health: A Canadian perspective. *Critical Public Health*, 18(3), 271–283. <https://doi.org/10.1080/09581590802294296>
- Homan, P., Brown, T. H., & King, B. (2021). Structural intersectionality as a new direction for health disparities research. *Journal of Health and Social Behavior*, 62(3), 350–370. <https://doi.org/10.1177/00221465211032947>
- Illing, J. (2013). Theoretical perspectives in medical education research. In K. Walsh (Ed.), *Oxford extbook of medical education*. Oxford University Press. <https://doi.org/10.1093/med/9780199652679.003.0052>
- Kincheloe, J. L., & McLaren, P. (2011). Rethinking critical theory and qualitative research. In K. Hayes, S. R. Steinberg, & K. Tobin (Eds.), *Key works in critical pedagogy* (Vol. 32, pp. 285–326). Springer. https://doi.org/10.1007/978-94-6091-397-6_23
- Kumagai, A. K., & Wear, D. (2014). “Making strange”: A role for the humanities in medical education. *Academic Medicine*, 89(7), 973–977. <https://doi.org/10.1097/ACM.0000000000000269>
- Kvale, S. (2006). Dominance through interviews and dialogues. *Qualitative inquiry*, 12(3), 480–500. <https://doi.org/10.1177/1077800406286235>
- Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2018). Paradigmatic controversies, contradictions, and emerging confluences, revisited. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (Fifth edition. ed., pp. 213–263). Sage.
- Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2024). Paradigmatic controversies, contradictions, and emerging confluences, revisited. In N. K. Denzin, Y. S. Lincoln, M. D. Giardina, & G. S. Cannella (Eds.), *The SAGE handbook of qualitative research* (6 ed., pp. 75–112). SAGE publications.
- Lovell, T. (2000). Thinking feminism with and against Bourdieu. *Feminist Theory*, 1(1), 11–32. <https://doi.org/10.1177/14647000022229047>

- Mat Noor, M. S. A., & Shafee, A. (2020). The role of critical friends in action research: A framework for design and implementation. *Practitioner Research* (3), 1–33.
<https://doi.org/10.32890/pr2021.3.1>
- Nicholls, D. A., & GradDipPhys. (2012). Foucault and physiotherapy. *Physiotherapy Theory and Practice*, 28(6), 447–453. <https://doi.org/10.3109/09593985.2012.676937>
- Nixon, S. A., Yeung, E., Shaw, J. A., Kuper, A., & Gibson, B. E. (2017). Seven-step framework for critical analysis and its application in the field of physical therapy. *Physical Therapy*, 97(2), 249–257. <https://doi.org/10.2522/ptj.20160149>
- Paradis, E., Nimmon, L., Wondimagegn, D., & Whitehead, C. R. (2020). Critical theory: Broadening our thinking to explore the structural factors at play in health professions education. *Academic Medicine*, 95(6), 842–845.
<https://doi.org/10.1097/ACM.0000000000003108>
- Swaffield, S. (2005). No sleeping partners: Relationships between head teachers and critical friends. *School Leadership & Management*, 25(1), 43–57.
<https://doi.org/10.1080/1363243052000317082>
- Tannen, D., Hamilton, H. E., & Schiffrin, D. (2015). *The handbook of discourse analysis* (2nd ed.). John Wiley & Sons, Inc.
- Tichavakunda, A. A. (2019). An overdue theoretical discourse: Pierre Bourdieu's theory of practice and critical race theory in education. *Educational Studies*, 55(6), 651–666.
<https://doi.org/10.1080/00131946.2019.1666395>
- Tracy, S. J. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative Inquiry*, 16(10), 837–851.
<https://doi.org/10.1177/1077800410383121>
- Varpio, L., & MacLeod, A. (2020). Philosophy of science series: Harnessing the multidisciplinary edge effect by exploring paradigms, ontologies, epistemologies, axiologies, and methodologies. *Academic Medicine*, 95(5), 686–689.
<https://doi.org/10.1097/ACM.0000000000003142>
- Wacquant, L. (2008). Pierre Bourdieu. In R. Stones (Ed.), *Key sociological thinkers* (2nd ed., pp. 215–229). Palgrave Macmillan.
- Wacquant, L. (2024). *Racial Domination*. Polity Press.
- Webb, S., Burke, P. J., Nichols, S., Roberts, S., Stahl, G., Threadgold, S., & Wilkinson, J. (2017). Thinking with and beyond Bourdieu in widening higher education participation. *Studies in Continuing Education*, 39(2), 138–160.
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Pre-amble to Chapter Three

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Chapter Three: Is this the right profession for me? A critical discourse analysis of public-facing physiotherapy websites

Abstract

Social justice, equity, diversity, inclusion and anti-oppression are touted as central tenets of physiotherapy educational institutions and governing bodies. However, some argue that health professions do not embody these tenets in their actions. Websites are one artefact that can display action or inaction, by foregrounding or erasing representation of diverse attributes of physiotherapists. Websites matter, in part, because they communicate how the profession sees itself, and its commitments to social justice, equity, diversity, inclusion and anti-oppression. Professional presentation may impact prospective students imagining themselves in the profession, as well as the broader public's understanding of who physiotherapists are.

This critical discourse analysis uses Pauwels' multimodal framework to analyze public-facing physiotherapy professional websites in Canada, examining physiotherapy's self-portrayal. Findings develop five discourses relating to the 'good' physiotherapist in the websites. Three discourses are consistent with existing literature: white supremacy in the profession; hetero/cissexism; and the superiority of private practice physiotherapy over other areas of physiotherapy practice. Two novel discourses are presented: the invulnerability of physiotherapists; and the neoliberal and capitalist nature of physiotherapy. If representational practices on professional websites stay narrow, or

continue to be confined to these discourses, the profession risks stagnation and is hypocritical of its stated aims.

Introduction

Social justice and equity, diversity, inclusion and anti-oppression are touted as central tenets of the profession of physiotherapy and the educational institutions where physiotherapy is taught (Canadian Physiotherapy Association, 2024; Chartered Society of Physiotherapy, 2021; World Physiotherapy, 2024, p. 239). Accreditation standards oblige Canadian university programs to uphold commitments to justice-driven and anti-oppressive health care environments (*Accreditation Handbook for Education Programs*, 2021). However, physiotherapy and other health professions lack clarity in how they enact these beliefs (Coulter et al., 2024) and indeed may exclude them from foundational professional documents (Slemon et al., 2024). Incongruities bolster the claim that social justice, equity, diversity, inclusion and anti-oppression have become buzzwords and do not necessarily yield significant changes (Perry, 2021).

Self-representation in professional materials may have implications including an effect on the recruitment of students into the profession. Current and prospective students in health professions engage in professional socialization prior to entering their program (Horsburgh et al., 2006), meaning they have begun conceptualizing their identity even before crossing the metaphorical threshold of the university (Massie et al., 2021). A lack of visual representation, where it exists, is occurring in an era where many university students look to the internet for their main sources of information (Kwan et al., 2019; Rouvinen et al., 2021). With one exception (Gervais-Hupé et al., 2022), physiotherapists (PTs) have not published a critical look at how our profession is portrayed in public-facing

materials, like websites. There is a potential that these websites fail to represent stated commitments to justice, equity, diversity, inclusion and anti-oppression in physiotherapy. By doing so, they portray our profession as exclusionary to prospective students and potential clients from marginalized groups, among other implications. If the commitments to equity, diversity, inclusion and anti-oppression in our health professions are sincere, then it is incumbent that physiotherapy scrutinizes its public face – its core websites – to understand how they represent our profession.

Dhillon and colleagues (2023), studying disability accommodation-related policies of a Canadian occupational therapy (OT) and physiotherapy program, highlight that what constitutes a ‘good’ rehabilitation professional “may reflect unconscious bias regarding who the ‘right’ students may be to meet the standards of the programs and professions” (Dhillon et al., 2023, p. 6). The authors encourage more critical discourse analysis (CDA) to be conducted in OT and physiotherapy:

Attention to the discourses, unconscious bias, and style of writing in professional texts is important to prompt critical reflection on the ways in which they could inadvertently limit diversity in the pool of candidates who could be supported to apply and successfully graduate from occupational therapy and physiotherapy programs. (Dhillon et al., 2023, p. 8)

We respond to their call, asking what are contemporary representations of a ‘good’ PT in Canadian public-facing physiotherapy websites? We sought to answer this question by

reviewing Canadian websites that aim to speak for the profession, using a CDA methodology to interpret meanings.

Background

Tension exists as to what constitutes a ‘good’ PT in the physiotherapy literature. Kleiner and colleagues’ (2021) integrative review considered 27 quantitative and qualitative research articles in musculoskeletal physiotherapy, revealing that in musculoskeletal physiotherapy, a ‘good’ PT is conceptualized as one who can balance the qualities of a proficient technical clinician with having human ways of being and interacting with people. They identified these human qualities as being responsive, ethical, communicative, and caring (Kleiner et al., 2021). A similar review examining the PT-patient interaction supports the concept of a ‘good’ PT being able to balance practical skills with good interpersonal skills and effective communication (O’Keeffe et al., 2016). In contrast to these patient-care directed qualities, early in their physiotherapy education, Norwegian physiotherapy students understand a ‘good’ PT as one who is ‘sporty’, a filter students apply to examine their and others’ fit for the profession (Dahl-Michelsen, 2014). Layered with this sportiness is the propensity for ‘hyper-sporty’ males, differentiated from ‘ordinary-sporty’ by their intensive involvement in sport, to be considered the most suitable for the profession by Norwegian students (Dahl-Michelsen, 2014). The students (in Dahl-Michelsen’s work) and the PTs and patients (in Kleiner and O’Keeffe’s work) appear to be choosing differing foci for a ‘good’ PT: the students present ‘hyper-sporty’ males which is more of a physical characteristic, and the PT and patients present more characteristics of aptitude and

behavior (proficient technician with good interpersonal skills). Some of the distinctions may stem from the differing methods in the research (observational and interview versus literature reviews), or from varying national and/or cultural orientations. Nevertheless, this illustrates that the vision of a ‘good’ PT is inconsistent. And none of these studies consider the many dimensions of societal marginalization, including racism, ableism, and heterosexism in how the ‘good’ PT is understood.

Conceptualizations of a ‘good’ health professional influence the admission and progression of students within educational programs, as Whitehead et al. (2013) argued when examining historical medical texts: “How a *good doctor* is conceptualized determines who is more likely to be accepted to medical school (personal and academic prerequisites) and who does well in medical school and residency training (shaping how students are assessed).” (Whitehead et al., 2013, p. 695) (original italics). Looking to other health professions, trainees in medicine and nursing who have marginalized racial identities will rarely see themselves represented in educational materials, specifically in textbooks (Louie & Wilkes, 2018; Massie et al., 2021; Pusey-Reid et al., 2023), which researchers argue is a source of implicit bias in health educational training (Pusey-Reid et al., 2023). However, to date, little is known about this representation in the profession of physiotherapy, beyond one study of representations of implied patients in private practices’ websites in Quebec, Canada; they found a predominance of young, active white people to represent patients (Gervais-Hupé et al., 2022). The authors recognize that this lack of diversity in the depictions of implied patients limits the scope of who might seek out physiotherapy services. They address that the visual imagery in these websites is “not

consistent with the physiotherapy community's commitments to upholding equity principles" (Gervais-Hupé et al., 2022, p. 233). The purpose of our study is to expand the existing knowledge about representations in physiotherapy by shifting the focus from the patients seeking care to the nature of the field and the PTs within the field.

Theoretical foundations underpinning critical discourse analysis

Discourse and discourse analysis

Grounded in post-modern and post-structuralist theories, discourse analysis aims to challenge taken-for-granted assumptions about our social world. These two related theories posit that no single objective truth exists that discourse simply puts into words. Instead, many perspectives and understandings co-occur in social reality (O'Connor & Payne, 2006), shaped by what the French theorist Michel Foucault called 'discourses'. Nicholls (2012, p. 448) defines discourse as "historically specific ways of thinking, practicing or speaking about things". Building on this, dominant discourse is "an institutional way of speaking or writing about reality that defines what can be intelligibly thought and said about the world and what cannot" (Social Theory Re-Wired: New Connections to Classical and Contemporary Perspectives, 2014). Discourses matter because they go beyond written or spoken words to influence actions, beliefs, and values (Gee, 2011), such as influencing help-seeking for mental health conditions (Johnson et al., 2012), and shaping the material world, such as influencing architecture (Foucault, 1977). For example, a possible common negative discourse could be that older adults are a financial burden on society as they do not work and yet consume valuable resources

(O'Connor & Payne, 2006). This discourse may be reproduced in institutional policies and practices that emphasize productivity as a foundation of human value. Following Foucault's theorizing, this discourse has the potential to impact on how older adults are treated by society, by removing their power and their value (O'Connor & Payne, 2006).

Discourse analysis aims to understand the broader social meaning embedded in and informing any given text. Thus, analysis of discourse follows a 'three-dimensional approach', considering what is in the text, linking the text to the historical and social context, and involving people and actions surrounding it (O'Connor & Payne, 2006). CDA is a subcategory within discourse analysis that investigates the social practices of language and linguistics to reveal forces that work to build or to reinforce power (Ainsworth & Hardy, 2004; Tannen et al., 2015).

Texts and discourse

Discourses are embedded in texts (Ainsworth & Hardy, 2004). Texts are objects ranging from books, journal articles, websites, transcripts of interviews, T-shirts and movie posters (McKee, 2003). Texts, as communication mediums, at times show complicated attitudes and beliefs towards different social identities (e.g., race, gender, class) (Ainsworth & Hardy, 2004). Texts are important as they exist across locations, and help communicate discourses across them, because they "make possible the same set of words, numbers or images in multiple local sites, however differently they may be read and taken up" (Smith, 2001, p. 160).

CDA explores ways in which discourse forms social practices and how these practices influence status, power, and the distribution of social goods (Gee, 2011). It brings to light the “social, ideological and political dimensions of discourse” (Cameron & Panovic, 2014, p. 66). Michel Foucault’s scholarship heavily influences CDA, especially his concepts of knowledge and power in discourses (O’Connor & Payne, 2006; Whitehead et al., 2013). Foucault’s work highlights the historical significance of discourses, particularly how different discourses in different times produce different identities (Ainsworth & Hardy, 2004) – such as the one of interest here, of the ‘good’ PT.

Discourse and identity

Discourses influence power and/or knowledge relations within which individuals are situated and identities are constructed (Ainsworth & Hardy, 2004). Importantly, identities are not fixed; instead, they change with co-existing complimentary or opposing discourses. As Ainsworth and Hardy (2004) describe, CDA can be especially helpful to understand the “discursive construction of identity of marginalized groups, especially gender and ethnic/racial identities”, but can also be used as illustrated here, to highlight how some identities may be notably absent. CDA allows researchers to explore how identities have come to be and the possibilities of other identities (Ainsworth & Hardy, 2004).

Research design

The methodology of this project is a CDA applying a multimodal analysis method to Canadian public-facing physiotherapy professional websites. Pauwels (2012) argues that

websites present a manifestation of contemporary culture, and consequently, “a huge repository of potential data about contemporary ways of doing and thinking of large groups of people across ethnic and national boundaries” (p.247).

The importance, or meaning, communicated through texts like websites is “not only through language but also through visual features and elements such as images, color, the layout of the pages, even through material objects and architecture.” (Machin, 2013, p. 347). Additionally, advancements in technologies have meant that communication is increasingly multimodal (Machin, 2013). A mode is defined as “a socially and culturally shaped resource or method of communicating that provides meaning in a given situation” (Rachul & Varpio, 2020, p. 1088). When looking to visual modes, examples often include written language, typography, layout and images like diagrams or tables (Pauwels, 2012; Rachul & Varpio, 2020). Multimodal analysis happens when researchers investigate at least two modes that convey meaning (Pauwels, 2012; Rachul & Varpio, 2020). Websites, which are never culturally neutral in their design (Kim, 2021), embed many visual, textual and auditory modes that speak to aspects of contemporary culture. We investigated how physiotherapy websites represent contemporary physiotherapy culture and the ‘good’ PT, by examining multiple modes through which websites convey meaning.

Ethical considerations

As this project used non-human data collection on publicly available online sources, Research Ethics Board approval was not required. However, we followed Stommel and de Rijk’s (2021) arguments for researchers to attend to ethical

considerations when engaging in discourse analysis of online sources particularly, “making explicit what research was not done” (Stommel & Rijk, 2021, p. 291). The present study examined physiotherapy-specific websites and did not include content from any forums, discussion boards, Facebook groups, tweets or similar sites which may be difficult to anonymize and did not capture institutional representations of PTs and their characteristics.

Sample

L. Harvey purposefully sampled twelve English-language public-facing physiotherapy websites: the Canadian Physiotherapy Association (CPA); all available provincial branches of the CPA in English (n= 9); two other national physiotherapy groups (Physiotherapy Education Accreditation of Canada, and the Canadian Council of Physiotherapy University Programs). We chose these because we were limited to analysis in English, and because many current and prospective physiotherapy students are accessing information online (Häger et al., 2021; Mącznik et al., 2015). They may visit other online spaces to explore the profession, but these official websites are important because they are controlled by formal professional bodies to portray a constructed ‘essence’ of physiotherapy, the profession’s values, and what it has to offer the broader public.

Data collection

For each organization’s website included in the study (list below), L. Harvey did a complete capture using portable document format (PDF), including text and images of pages within each site. L. Harvey included all pages with images, graphics, and/or videos,

noting the navigational process to reach them. Pages with text only were also included, apart from pages that were purely informational (e.g., contact information). L. Harvey kept a detailed log of data collection, including dates of collection, names, and Uniform Resource Locators (URLs) – i.e., the addresses of the webpages. This accounting process, part of the audit trail, helps to enhance the rigor of the research (Tracy, 2010). We used MAXQDA qualitative data analysis software (<https://www.maxqda.com/>) to assist with analysis, as it can store webpages. The websites are:

Canadian Physiotherapy Association

Physiotherapy Education Accreditation of Canada

Canadian Council of Physiotherapy University Programs

Physiotherapy Association of British Columbia

Alberta Association of Physiotherapy

Saskatchewan Physiotherapy Association

Manitoba Physiotherapy Association

Ontario Physiotherapy Association

New Brunswick Physiotherapy Association

Nova Scotia Physiotherapy Association

Newfoundland and Labrador Physiotherapy Association

Prince Edward Island Physiotherapy Association

The images shown below are not the exact images from the websites. In order to maintain the anonymity of the specific creators of the website and to ensure compliance with copyright and fair dealing use agreements, the images in this project were sourced from free-to-use image websites (<https://unsplash.com/>) or were re-created by L. Harvey (with written consent from the models) to mimic images found on websites.

Analysis

The meaning of the text, considered through the theoretical concept of discourse, is shaped not just by the words but also by the context within which the work is situated (Rachul & Varpio, 2020). This means the analysis method used needs to attend to textual dimensions beyond words alone. We applied Pauwels' multimodal framework for analyzing websites (Pauwels, 2012) because it allows for the exploration of the different methods and contexts of communication.

Pauwels' (2012) framework consists of six phases, starting with a more superficial examination and progressively working towards a more interpretive analysis. The six phases are:

Phase One: Preservation of first impressions and reactions

Phase Two: Inventory of salient features and topics

Phase Three: In-depth analysis of content and formal choices

Phase Four: Embedded point(s) of view or 'voice' and implied audience(s) and purposes

Phase Five: Analysis of information organization and spatial priming strategies

Phase Six: Contextual analysis, provenance and inference

Researchers may customize the Pauwels framework to suit their research needs (Hilton et al., 2024; Liu et al., 2023). We used all six phases to examine the data, with phases two, three and five heavily influencing findings. We present phase four (focusing on purposes) and phase six (focusing on context) in the discussion and implications.

L. Harvey built an inventory of the website contents. During Pauwels' phase one, L. Harvey recorded her initial reactions to the website, including aesthetic features and her own immediate perceptions and feelings, to support reflexivity over time. Phase two is where the formal analysis begins; Pauwels includes a “‘negative’ analysis, that is to pay attention to those items, aspects or events that are ‘meaningfully absent’” (Pauwels, 2012, p. 253). Informing the interpretation of the negative analysis was Nixon's coin model of privilege (Nixon, 2019). Nixon represents each system of inequality by a coin, where the top of the coin symbolizes the social group that is advantaged by the system of inequality, while the bottom of the coin represents the groups that are disadvantaged. For example, the top of the coin of ableism will have those who are able-bodied, and the bottom of the coin represents those with disabilities. L. Harvey used Nixon's model as a sensitizing concept to help identify what is represented and what is absent. Then, L. Harvey built an account of features and categories that were noted, and those that were missing, including images, videos, tables, and others. L. Harvey and P. Thille created a template based on several systems of inequity, starting from Nixon (2019), and engaged in an iterative process

by building on this initial template throughout the analysis, adding sizeism (a system of inequality not in Nixon) and athleticism (while not a system of inequality per se, a concept with potential identity salience for physiotherapy (Dahl-Michelsen, 2014)). Table 1 describes the final template of systems of oppression and the privileged and oppressed/devalued identities within them. In addition, we focused on the type of physiotherapy represented (private versus public practice).

Table 1: *Systems of oppression and corresponding identities that experience privilege/oppression*

System of oppression	Identities
Classism	Upper-middle class / lower class
Racism	White / non-white
Settler/Colonialism	Settler / Indigenous
Ableism	Able-bodied / Disabled
Sexism	Male / female
Heterosexism	Straight / 2SLGBTQIA+
Cisgenderism	Cis gender / Trans gender
Sizeism	Thin body type / not thin body type
Athleticism	Sportiness / non-sportiness
Ageism	Younger age / older age

Phase three centers on the multimodality of the website, investigating: the written text; the “typographical signifiers” (Pauwels, 2012, p. 254) (such as font style and size, color, spacing and legibility); the visual representation (such as charts, photographs, or tables, for example); the auditory components; and the layout. Font choices can signify ‘character’ – for example, more formal, authoritative and playful – and size can be seen to reflect importance (bigger = more important). Specific to the written parts of websites, we chose not to focus on the typographical signifiers such as font size and color in the analysis (due to L. Harvey’s lack of typographical expertise) and instead focused on ‘verbal/written signifiers’ to look for “potential culturally specific meanings that reside in the explicit and implicit content of the written utterances” (Pauwels, 2012, p. 253), as this aligned well with the research question. To do this, L. Harvey made an inventory of verbal/written signifiers, including those suggested by Pauwels: “use of first person singular or plural or impersonal, [...] gendered statements, use of metaphor, rhetoric and narrative strategies” (Pauwels, 2012, p. 254).

Phase four is a meta-analysis that takes the content from Phase three and begins to question the reasoning and purpose of the site, looking for dominant narratives, asking “the questions; ‘who’ is really saying [...] ‘what’ to ‘whom’ and with what ‘purpose’?” (Pauwels, 2012, p. 257). Pauwels suggests comparing Phase four against Phase one, or initial explicit reactions, to investigate implicit purposes and audiences (Pauwels, 2012). Phase five focuses on dynamic structures of the website, for example, navigation features like menus and links. This phase emphasizes “analyzing the structural and navigational options and constraints” of the websites (Pauwels, 2012, p. 258). This includes such things

as the ease of site navigation through number of ‘clicks’, menus, internal links and password-controlled areas, with an inverse correlation between number of clicks and perceived importance (Pauwels, 2012). In this part of the analysis, we attended to how many layers of navigation (or ‘clicks’) one must negotiate to access certain information. The final phase involves analyzing the website in the wider social context, with attention to potential political forces and cultural norms. In this phase, we included bridging the systems of oppression and corresponding identities based on Nixon’s coin model (Table 1), a process of itemization, to Foucault’s concepts of how certain discourses are normalized and institutionalized.

L. Harvey copied each webpage between February 14, 2023, and August 12, 2024, and completed phases one and two for each individual site within a week of the initial viewing. P. Thille supported methodological decision-making throughout the project through regular analytic meetings. All authors contributed to the study conception and design. The first draft of the manuscript was written by L. Harvey and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

Positionality

L. Harvey is a part of the dominant groups, existing on the ‘top’ of the coins, in the profession of physiotherapy specifically. She is a white, cis-gendered, heterosexual, able-bodied female from a middle to high socioeconomic background. She has worked as a PT and now a physiotherapy educator. She has been an official or unofficial mentor to many

physiotherapy students with many different marginalized social identities. She recognizes that each of these identities and experiences influenced her insights in this project. Her intention was to approach this research with the goal of critical allyship (Nixon, 2019).

S. Webber is a PT who has worked in clinical practice, education, research and academic administration. As a cis-gendered, white, able-bodied heterosexual, and highly educated woman, she experiences and acknowledges privilege in many aspects of her life.

C. Rachul acknowledges her privilege as a white, cis-gendered, heterosexual woman currently from a high socioeconomic background who also navigates life with some mobility disability. She is an applied linguist who explores how education, health, and science discourses shape and are shaped by the practices of institutions and individuals. Her work is driven by a commitment to fostering more inclusive approaches to recruiting, teaching, and supporting learners in the health professions.

P. Thille experiences privilege from her whiteness, abilities and body size, her education and current social class, among others. She is a sociologist, feminist, and PT whose research program seeks to strengthen movements for justice and disrupt structural and symbolic violence as it manifests in both professional and personal spheres. She strives to do so in ways that are accountable to those living with that violence every day.

Findings

The findings first who is being represented, in images and words, before presenting more multi-modal findings.

Who is visible/In the light

Those who are visible, or in the light, are white or white-passing, as seen in full body pictures but also in photos showing only some body parts (e.g., images of just hands or legs) (see Figures 1 and 2). Three websites had only imagery of white/white-passing people.

Figure 1: *Example of white passing people in partial body images*



Photo by yury kirillov on Unsplash

Figure 2: *Example of white passing people in partial body images*



Photo by [Toa Heftiba](#) on Unsplash

Regarding body shape, all images featured implied PTs with thin, fit-looking body types. Many featured people engaged in active pursuits – cycling, hiking, jogging,

swimming, yoga. There were some implied patients with larger body types, but when websites represented ‘patients’ engaging in relatively complex exercises, including using specialized exercise equipment, the images were exclusively of a thin-bodied person (e.g., doing a plank exercise with feet in TRX⁴ suspension training straps or bridge exercise on therapy ball as seen in Figure 3).

Figure 3: *Example of thin-bodied person doing exercise on specialized equipment*



Personal photo: L.Harvey

Adding to the ‘therapist’ characteristics, those visualized appeared to be relatively young (aged in their 20s and 30s). If a variety of ages were shown, it was for implied patients with accompanying text explaining that PTs treat patients of all ages. The images featured ‘patients’ and ‘therapists’ in gender expressions of male and female⁵ in near equal proportion.

⁴ [TRX suspension training](#)

⁵ We recognize that gender is a social construct, one which goes beyond the male/female binary, and gender expression is a personal choice that may not link the person’s gender. Here, the terms are used to speak only to what the images portray.

Almost all images showed physiotherapy with a predominant orthopedic focus (e.g., handling a joint, showing an exercise or applying electrophysical agents) and often in settings that implied outpatient and more specifically private practice (e.g., on plinths with curtain room separators or with gym equipment) (see Figures 4 and 5). PTs are thus represented as people who are white or white-passing, thin and physically active young adults who work in orthopedic private practices.

Figure 4: *Example of imagery implying a private practice setting*



Photo by [Sincerely Media](#) on Unsplash

Figure 5: *Example of imagery implying a private practice setting*

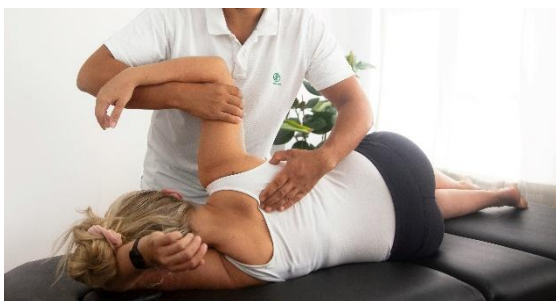


Photo by [Marc Zeman](#) on Unsplash

Who is sometimes there/In the grey and/or In the know

In keeping with Pauwels' direction to analyze what/who is present in addition to what/who is meaningfully absent, some websites did represent some identities from the bottoms of 'coins'. As this was not common practice, we have labeled this as being 'in the

grey’ – sometimes visible but mostly not. In most websites, the content was buried under layers of navigation (numerous ‘clicks’), meaning that only those who are privy to the information within the websites, or were ‘in the know’ about how to find information within them, would see a broader range of identities represented.

One website featured videos of people in traditional Indigenous dress in a drum circle (on one video) and doing a hoop dance (on another). Both were implied patients, with accompanying text inferring how physiotherapy can get someone back to activities they enjoy. Layered navigation hid the content under two ‘clicks’.

Images of non-white people and people with larger bodies were present when real people were shown, such as members of the Board of the organization, in contrast to what seem to be stock images of people. In one website, finding imagery of a non-white PT requires two ‘clicks’ – both on drop down menus. This occurs similarly in other websites.

Only one website featured 2SLGBTQIA+ imagery. It was an outdated post from June 2022 and seen in May 2023, almost a year old, with text saying, “Pride Season” and ‘Happy Pride Month!’” (see Figure 6). This notice was buried under two layers of navigation (under ‘recent news’) and found only through additional scrolling over several screens to the bottom of the content within a calendar of events.

Figure 6: *Example of imagery and text showing affiliation to the 2SLGBTQIA+ community*



Source: Government of Canada, <https://www.canada.ca/en/women-gender-equality/pride-season/toolkit.html>

Finally, one website had a statement for Equity, Diversity, Inclusion and Anti-racism; however, it required two ‘clicks’ on menu items with non-descript titles (‘News’ and ‘Learn More’).

Who is written about/In the black and white

The written text – the metaphorical black and white – carries meaning in multiple ways. One such way is the through the ‘voice’. All websites analyzed used a third person plural voice (e.g., “Physiotherapists are...”) which can convey objectivity or a depersonalized factual account of events (Zhou & Hall, 2018). This style appears to be authoritative and to place the PT as having higher status than the reader.

With PTs established as authorities (within a social hierarchy) through the third person plural voice, other written signifiers convey the rhetoric aimed at both potential

patients (clients) and PTs. The imagery of people engaged in active pursuits is reinforced by written signifiers that being active is ideal.

“Physiotherapists improve clients’ quality of life by...improving and maintaining optimal functional independence and physical performance.”

“As the world opens up, physiotherapy helps you move better and take on new hobbies, activities, and adventures.”

Written signifiers also represent PTs as athletes themselves, an overgeneralized ideal not necessarily indicative of reality.

“Canada’s most physically active health care professionals lead by example.”

Who is made invisible/In the shadows

Those found in the shadows - who are made invisible by absence in the websites - include those who are Black, Indigenous and People of Color (BIPOC), people with disabilities, and those from the 2SLGBTQIA+ community. Images of BIPOC identities were present but often depicted as implied patients as noted by their position (e.g., lying on a plinth) or their activity (e.g., doing an exercise) while a standing person watched and/or supported their activity (see Figure 7). Rarely were BIPOC identities shown as the ‘therapist’, though this did occur (see Figures 8 and 9).

Figure 7: *Example of BIPOC person depicted as implied patient*



Personal photo: L.Harvey

Figure 8: *Example of BIPOC person depicted as implied physiotherapist*



Personal photo: L.Harvey

Figure 9: *Example of BIPOC people depicted as implied physiotherapist*



Personal photo: L.Harvey

As described above, only two websites had a visible association in their imagery with Indigenous communities, as depicted by symbols such as flags or people in traditional dress (images for National Indigenous Peoples Day but a year out of date (2022 in 2023)). This general absence erases Indigeneity and highlights the dominance of white/settler imagery on the websites studied.

All websites that featured people with signifiers of visible disabilities were featured as implied patients, and never as implied PTs. This includes pictures of people in wheelchairs, wearing knee braces, and/or using crutches (see Figure 10).

Figure 10: *Example of implied patient wearing a knee brace*



Personal photo: L.Harvey

Only one website had any visual signifiers of affiliation to or solidarity with the 2SLGBTQIA+ community (e.g., images of flags), discussed above in “In the grey”. Two websites had images of implied families doing activities; each image reinforced a heteronormative family unit. All websites appeared to feature cisgender people or people who pass as such, and no website included written or visual signifiers in support of the trans or non-binary communities.

The transactional nature of physiotherapy/In the money

Physiotherapy is presented on the websites as being for those who are from higher socioeconomic backgrounds. Being ‘in the money’ is true for both the ‘therapists’ and the ‘patients’ depicted. Social class was visually represented by images of therapists who are

groomed and well dressed, often in ‘athleisure’⁶ attire. The imagery often includes equipment or accessories that are expensive, for example riding mountain bicycles or wearing smart watches. These also signify leisure time, which implies financial stability (hiking, trail cycling) (see Figures 11 and 12).

Figure 11: *Example of implied financial stability through a smart watch*



Photo by [Sincerely Media](#) on Unsplash

Figure 12: *Example of implied financial stability through cycling*



Photo by [Kirsten Frank](#) on Unsplash.

Some websites also represent financial stability of PTs through the written signifiers, particularly when describing private practice physiotherapy. This recurrence conveys that

⁶ “casual clothing designed to be worn both for exercising and for general use” (<https://www.merriam-webster.com/dictionary/athleisure>)

private practice physiotherapy, and the financial responsibilities associated with it, are dominant forces in the profession.

“If you have health insurance coverage, check your policy. You may require a doctor’s referral in order to obtain reimbursement for your physiotherapy treatment.”

“...physiotherapy is commonly included as one of the eligible benefits that group health insurance programs cover. Take note, however, because the benefit may be capped at a specific maximum amount per year (such as \$500 or \$1,000), after which you will be required to pay out-of-pocket.”

What is communicated together/In the overlap

Each website has many modes, including written, visual and auditory. L. Harvey analyzed these components as distinct entities (intra-modal), and also how they interplay and react with each other, described as cross-modal interplay (Pauwels, 2012), or what we call the overlap. Cross-modal interplay can include modes that align in a message or are incongruous in some respect. Pauwels describes these as loosely related and may convey “incongruent ideas” (Pauwels, 2012).

Continuing earlier trends, one website used the overlapping ideas of engagement in active pursuits and rurality in a recruitment video – implying that they are seeking active, sporty, thin, and able-bodied PTs. A PT speaks in the video:

...you can step out your door and do amazing things: from horseback riding, we can go ATVing [sic] up a mountain. We often pack a dinner and head up and look down

from 7000 feet onto the lake. We go boating, we go snowshoeing, mountain biking...

You can do it all here. I always want to live here and never look back.

These activities additionally reinforce the ‘In the Money’ findings as they are also indicative of socio-economic resources, implying leisure time and financial resources to own specialized equipment.

At times, the cross-modal interplay shows instances of incongruity, where the text and the imagery do not match, creating some confusion on the intent of both modes. For example, the homepage of one has text describing the organization:

Welcome to the [Provincial] Association of Physiotherapy. In December 2020, the Health Statutes Amendment Act, 2020 (No. 2) (“Bill 46”) received Royal Assent. The Act includes several amendments to the Health Professions Act (HPA) including provisions that require regulatory colleges to cease functioning as professional associations and to divest themselves of any professional association functions they currently perform.

Figure 13: *Example of an image that does not appear to relate to the accompanying text*



Photo by [bruce mars](#) on Unsplash; text by L.Harvey

The image for this text is of three people doing an exercise, which does not obviously relate to the written content (Figure 13) and reinforces physiotherapy as a thin, young, fit, white profession.

One website's heading, "The CPA's Future of Licensure Project" was paired with seemingly unrelated imagery of an implied PT, wearing a lab coat over a shirt and tie, holding a clipboard and leaning towards an older woman who appears to be filling out a form. Not only does the implied clinical scenario not relate to the written content on licensure and competency assessments for PTs, it also does not represent a common clinical scenario in physiotherapy. Rather, it appears to be a stock image that globally represents 'medical' interactions; white coats are most typically associated with doctors, and it is not typically common for two interventions to happen in such proximity and with no privacy as seen in the foreground and background of this image (Figure 14).

Figure 14: *Example of an image that does not relate to the accompanying text*



Personal photo: L.Harvey

Discussion

The Canadian physiotherapy websites studied do not yet represent their stated dedication to a focus on justice, equity, diversity, inclusion and anti-oppression on their websites. This is evident from both who is made visible and who is rendered invisible, through words, images, and navigation. In addition, Canadian physiotherapy is represented as a transactional, entrepreneurial profession.

Looking across the findings, we argue that two discourses about physiotherapy are present in these websites that have not been highlighted previously: the invulnerability of PTs; and the neoliberal and capitalist nature of physiotherapy. To explain the potentially provocative nature of the findings, one must consider how these discourses are present in other aspects of our profession and in other health professions.

First, the discourse is that PTs are invulnerable; across Canadian physiotherapy websites, they are portrayed young, healthy and able-bodied, fit, thin, and rich(er). This implies that they are invulnerable to illness, to disability, and to socioeconomic strife – and

maybe even to aging. The representation of youthfulness is not an indication of the true nature of the profession: 48% of the Canadian PT workforce is younger than 40 years old (Canadian Institute for Health Information, 2024), whereas this analysis found an overrepresentation of young adults, typically in their 20s or 30s on Canadian physiotherapy websites. This discourse also inaccurately represents PTs as invulnerable to issue regarding their mental health as PTs in Australia report emotional exhaustion after interactions with patient experiencing emotional distress (McGrath et al., 2024).

Invulnerability discourse is not unique to physiotherapy. A discourse of invulnerability has been explored in medicine, specifically regarding invulnerability to illness (Bannatyne et al., 2023; Fox et al., 2011; Riley et al., 2021; Riley et al., 2018). Medical trainees report a “pervasive culture of competency” (Fox et al., 2011, p. 1258) which makes them hesitant to disclose any personal health conditions, particularly if they are related to mental health. These beliefs on the invulnerability of medical doctors are rarely stated overtly, but are felt profoundly through the trainees’ interactions with patients and with colleagues, and in their education (Fox et al., 2011). Yet vulnerability matters; for example, family doctors (general practitioners) felt less secluded and more resilient to the emotional and clinical demands of their work if they were able to speak to colleagues about vulnerability (Riley et al., 2021). While not explicitly framed through a discourse of invulnerability through health, the concept of feeling unable to express perceived ‘weakness’ was raised by private practice PTs in Aotearoa New Zealand. The PTs describe themselves and their colleagues “as being defensive and averse to scrutiny” (Darlow et al., 2024, p. 146) when seeking a second opinion for their work. To our knowledge, a discourse

of PT invulnerability, regarding their physical and mental health, has not been identified previously. The ‘good’ PT (or by proxy, applicant to physiotherapy education) is, then, the one who similarly embodies this invulnerability.

The second newly identified discourse is physiotherapy as a neoliberal and capitalist profession: neoliberal in the sense that people are tasked with taking responsibility for their own health (Sinno et al., 2024), and capitalist in that physiotherapy is a transaction within a capitalist system. This neoliberal discourse is echoed by recent changes to healthcare in many high-income countries resulting in the responsibility (personal and financial) for health to be placed on the individual and not on the state (McGregor, 2001). Both the neoliberal discourse and the capitalist presentation of physiotherapy⁷ are illustrated in the “In the Money” findings, where written signifiers instruct potential patients to check their private insurance for coverage, and to be responsible out-of-pocket for any amount not covered. The capitalist discourse is also present through signifiers of potential patients with higher incomes, such as visualizations of their expensive leisure/exercise pursuits and their attire. These discourses forebode that the future is one where “physical therapies are no longer available to all on the basis of need, but [...] become luxuries and indulgences available only to those who can afford to pay for them” (Nicholls, 2024, p.1825). In their study of websites of private practice physiotherapy clinics in Québec, Canada, Gervais-Hupé et al. (2022) illustrate the neoliberal framing of physiotherapy patients as those who are financially responsible for

⁷ For more detail, David Nicholls (2018) provides an historical overview of the evolution of the profession under neoliberalism.

their care, assuming the websites' target audience as those who "are usually privileged by current policies and structures in our society (e.g., people with health insurance, able-bodied individuals) and therefore have sufficient resources to seek private practice physiotherapy services." (p. 236). This discourse places the physiotherapeutic intervention into the monetary realm, as something to be purchased and gained through individual discipline, and away from any altruistic intentions of the profession (Gervais-Hupé et al., 2022). The 'good' PT in Canada, then, is one who participates in this framework of selling services to those who can afford them.

Studies of website representations of other health professions are common. But the neoliberal and capitalist discourse reflected by Canadian physiotherapy stands in contrast to discourses shaping other professions. Within occupational therapy, for example, a critical discourse analysis investigating the portrayal of the profession to medical doctors online and in medical magazines in the United Kingdom (UK) (White & Cameron, 2015) identified a shared discourse between medicine and occupational therapy linking health and occupation. Another study with UK occupational therapists addressed the connection between their feelings of occupational imbalance (or the ineffective "participation in a complex variety of different activities") (Clouston, 2014, p. 508) and the influences of neoliberal capitalism, which demands that "paid work is prioritized as the activity par excellence" (Clouston, 2014, p. 514). Neoliberalism and capitalism are not embraced as part of the profession of occupational therapy, in contrast to Canadian physiotherapy websites.

Three additional portrayals of the ‘good’ PT in the present study are consistent with existing literature: white supremacy; hetero/cissexism; and the dominance of private practice physiotherapy over other physiotherapy practices. White supremacy is defined as “conditions, practices, and ideologies that underscore the hegemony of whiteness and White political, social, cultural and economic domination.” (Alang et al., 2021, p. 815). The white supremacy discourse, implied in these Canadian websites by the repeated portrayal of PTs as white, is reinforced by qualitative work with Black Canadian PTs and physiotherapy students that found the profession to be a “white space” (Wegrzyn et al., 2021, p. 2). They argue that this orientation to whiteness limits both the entry of Black people into the profession and their mobility once practicing (Wegrzyn et al., 2021). Additionally, racialized PTs in Canada recognize that most leaders in the profession and in professional organizations are white (Vazir et al., 2019), inviting policy makers and faculty in educational programs in physiotherapy to advocate for equitable access to professional programs for prospective racialized students (Vazir et al., 2019). As per the present study, we see one way that white supremacy manifests and could discourage Black and other racialized prospective students: through their limited portrayal as the face of the profession.

Another social group excluded in the profession are the 2SLGBTQIA+ community (Two-spirited, Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, Intersex, Asexual and additional sexual orientation and gender identities). This discourse of hetero-supremacy (Kilhefner, 2017) – that heterosexuality is “normal” and superior – is reproduced by the absence of people or representations of the 2SLGBTQIA+ community.

Their absence in the portrayals of PTs in Canadian websites echoes findings from interviews with PTs from Australia, Canada, the United Kingdom and the United States who self-identify as LGBTQIA+⁸. The authors of this work found a “persistent cis/hetero-normativity in the profession” (Ross et al., 2022, p. 8) that resulted in increased stress and labor experienced by the participants resulting from pressures to conform (Ross et al., 2022). The hetero/cissexist discourse in the present study can contribute to a lack of sexual and gender diversity in our profession by limiting potential students from seeing themselves in the profession and opting to not apply to physiotherapy educational programs.

A discourse of the dominance of private practice physiotherapy has been developed from the neoliberal approach as described above. However, we also see this as relating to a broader gendered discourse in the profession. Physiotherapy students in Sweden have shown a strong preference for a career in private practice, with gender guiding this choice; men more often work in private practice and within sports medicine (Öhman et al., 2001). Similarly in Canada, men are more likely to work in the private physiotherapy sector, which may be linked to remunerative benefits and a related position of prestige (Feldman et al., 2023). This discourse of the dominance of private practice physiotherapy also does not represent the actuality of the profession in Canada: PTs working in the private sector make up just under 60% of the area of employment for PTs (Canadian Institute for Health Information, 2024). In contrast, formal Canadian

⁸ LGBTQIA+ is the term used by the authors. 2SLGBTQIA+ is the term used in Canada

physiotherapy organizations' websites in 2023 and 2024 represent this sector of the workforce almost exclusively.

Finally, emerging research recognizes that the stated commitments to social justice in the health professions are still demonstrably lacking in substantive documents. In nursing in Canada, social justice is “persistently discursively excluded and devalued within Canadian national and provincial nursing documents” (Slemon et al., 2024, p. 10). Slemon et al. (2024) advocate for nursing organizations to be deliberate and unambiguous in their directives regarding social justice, a message that deserves application to all health professions. One such way of communicating this message is undoubtedly through their professional public-facing websites – a problem found in our study.

Intervening in these discourses can include simple strategies such as broadening the visual representation in websites to include physiotherapists of various ages, races, cultural backgrounds, body sizes and abilities. Portraying diverse physiotherapeutic settings in images, such as a rehabilitation gym or a hospital room, with diverse patients, may shift the focus of the neoliberal and capitalist narrative. Displaying identifiers, such as images of flags, depicting affiliation to or solidarity with 2SLGBTQIA+ and Indigenous communities is another strategy. Shifting the conditions in which these dominant discourses emerge is a more complex intervention involving significant institutional changes. Strategies should include broadening physiotherapy applicant recruitment and admissions initiatives to increase access to the profession for those from a variety of racial, cultural, religious and socioeconomic backgrounds; intervening in educational practices that reinforce the status quo; and changing health professional cultural

environments to champion retention and promotion for physiotherapists from under-represented groups.

Limitations

Websites are living documents, continually transforming, making this analysis a cross-section of a moment in time. Between the initial analysis and potential publication, many of the websites studied have changed, an unavoidable issue with website research. Both representations and technologies can change, and new websites may present new options not reflected in the analytical framework (for example, the accessibility of websites and the use of Artificial Intelligence (AI)).

We sampled these websites because they are produced by formal organizations that represent the profession to a large target audience of lay people. However, many more websites are available to prospective students researching their future career path, including those from post-secondary institutions that teach physiotherapy, and those in the private health sector representing part of the workforce of PTs. Prospective students may use other sources of information to inform their decision to apply; for example, prospective university students in the United States also reported using social media to inform their decision on school choice (Shields & Peruta, 2019). Additionally, many identities are not necessarily recognizable through imagery (e.g., mixed race, religion, gender, sexuality) and are nonetheless important considerations for the profession. Moreover, complex issues such as intersectionality – which highlights co-existing systems

of oppression and how they position people – are beyond the scope of this methodology and are worthy of future research in the field.

Conclusion

It is imperative for those who influence professional websites' content to identify if these websites accurately convey the current profession and the future potential of the profession. If representational practices stay narrow, or caught up in the discourses of invulnerability, of the neoliberal and capitalist nature of the profession, of white supremacy, hetero/cissexism and the superiority of private practice physiotherapy, the profession risks stagnation and is hypocritical of its stated aims.

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References for Chapter Three

- Accreditation Handbook for Education Programs*. (2021). P. E. A. Canada. <https://peac-aepc.ca/pdfs/Resources/Accreditation%20Handbooks/PEAC%20Program%20Accreditation%20Handbook.pdf>
- Ainsworth, S., & Hardy, C. (2004). Critical discourse analysis and identity: why bother? *Critical Discourse Studies*, 1(2), 225–259.
<https://doi.org/10.1080/1740590042000302085>
- Alang, S., Hardeman, R., Karbeah, J. M., Akosionu, O., McGuire, C., Abdi, H., & McAlpine, D. (2021). White supremacy and the core functions of public health. *American Journal of Public Health (1971)*, 111(5), 815–819.
<https://doi.org/10.2105/AJPH.2020.306137>
- Bannatyne, A. J., Jones, C., Craig, B. M., Jones, D., & Forrest, K. (2023). A systematic review of mental health interventions to reduce self-stigma in medical students and doctors. *Frontiers in Medicine*, 10(1204274), 1–10.
<https://doi.org/10.3389/fmed.2023.1204274>
- Cameron, D., & Panovic, I. (2014). *Working with written discourse* (M. Steele, Ed.). SAGE.
- Canadian Institute for Health Information. (2024). *Physiotherapists*.
<https://www.cihi.ca/en/physiotherapists>
- Canadian Physiotherapy Association. (2024). *Core Professional Values*. Retrieved from <https://physiotherapy.ca/core-professional-values/>
- Chartered Society of Physiotherapy. (2021). *CSP equity, diversity and belonging strategy*. Retrieved from <https://www.csp.org.uk/about-csp/equity-diversity-belonging/strategy>
- Clouston, T. J. (2014). Whose occupational balance is it anyway? The challenge of neoliberal capitalism and work–life imbalance. *The British Journal of Occupational Therapy*, 77(10), 507–515. <https://doi.org/10.4276/030802214X14122630932430>
- Coulter, E., McQueen, C., Abu-Jurji, Z., Chan-Emery, I., Rukavina, M., Solecki, R., Wojkowski, S., & Dhir, J. (2024). Development and delivery of justice, equity, diversity, inclusion, and anti-oppression concepts in entry-level health professional education: A scoping review: BEME Guide No. 88. *Medical Teacher*, 1–13.
<https://doi.org/10.1080/0142159X.2024.2387147>
- Dahl-Michelsen, T. (2014). Sportiness and masculinities among female and male physiotherapy students. *Physiotherapy Theory and Practice*, 30(5), 329–337.
<https://doi.org/10.3109/09593985.2013.876692>
- Darlow, B., Stotter, G., McKinlay, E., & Pringle, J. (2024). Private practice model of physiotherapy: professional challenges identified through an exploratory qualitative study. *Journal of Primary Health Care*, 16(2), 143–150.
<https://doi.org/10.1071/HC23150>
- Dhillon, S., Stroinska, M., Moll, S., & Solomon, P. (2023). Texts influencing the accommodation process of students with disabilities in professional rehabilitation programs: an analysis of discourse. *Disability and Rehabilitation*, 45(1), 176–184.
<https://doi.org/10.1080/09638288.2021.2017027>

- Feldman, D. E., Bellavance, C., Frédérick, D., Gagnon, T., Lalonde, C., & Hudon, A. (2023). Gender issues in physiotherapy in Quebec, Canada. *Physiotherapy Canada*, 75(2), 169–176. <https://doi.org/10.3138/ptc-2020-0142>
- Foucault, M. (1977). *Discipline and punish: The birth of the prison*. Random House, Inc.
- Fox, F. E., Doran, N. J., Rodham, K. J., Taylor, G. J., Harris, M. F., & O'Connor, M. (2011). Junior doctors' experiences of personal illness: a qualitative study. *Medical Education*, 45(12), 1251–1261. <https://doi.org/10.1111/j.1365-2923.2011.04083.x>
- Gee, J. P. (2011). *An introduction to discourse analysis : theory and method* (3rd ed.). Routledge.
- Gervais-Hupé, J., Perreault, K., Cleaver, S., & Hudon, A. (2022). Analysis of private physiotherapy clinic web sites using a critical perspective. *Physiotherapy Canada*, 75(3), 233–244. <https://doi.org/10.3138/ptc-2021-0075>
- Häger, C., Swaminathan, N., Clark, C., Ibrahim Kassem, H., & McDonough, S. (2021). Technology enhanced physiotherapy education - global perspectives. World Physiotherapy Congress, online.
- Hilton, A. L., Chapman, S., & Perry, L. B. (2024). School choice in an information desert: A multimodal website analysis of vocational education offerings. *Issues in Educational Research*, 34(2), 529–546.
- Horsburgh, M., Perkins, R., Coyle, B., & Degeling, P. (2006). The professional subcultures of students entering medicine, nursing and pharmacy programmes. *Journal of Interprofessional Care*, 20(4), 425–431. <https://doi.org/10.1080/13561820600805233>
- Johnson, J. L., Oliffe, J. L., Kelly, M. T., Galdas, P., & Ogrodniczuk, J. S. (2012). Men's discourses of help-seeking in the context of depression. *Sociology of Health & Illness*, 34(3), 345–361. <https://doi.org/10.1111/j.1467-9566.2011.01372.x>
- Kilhefner, D. (2017). "Hetero Supremacy". *The Gay and Lesbian Review*.
- Kim, S. Y. (2021). College disability support offices as advertisements: A multimodal discourse analysis. *Discourse Studies*, 23(2), 166–190. <https://doi.org/10.1177/1461445620966921>
- Kleiner, M. J., Kinsella, E. A., Miciak, M., Teachman, G., McCabe, E., & Walton, D. M. (2021). An integrative review of the qualities of a 'good' physiotherapist. *Physiotherapy Theory and Practice*, 1–27. <https://doi.org/10.1080/09593985.2021.1999354>
- Kwan, G., Shaw, J. A., & Murnane, L. (2019). Internet usage within healthcare: How college students use the Internet to obtain health information. *Journal of Consumer Health on the Internet*, 23(4), 366–377. <https://doi.org/10.1080/15398285.2019.1681247>
- Liu, X., Zheng, D., & Wu, S. (2023). Across the islands: A multimodal discourse analysis of government homepages. *Visual Studies*, 38(3-4), 663–680. <https://doi.org/10.1080/1472586X.2022.2062443>
- Louie, P., & Wilkes, R. (2018). Representations of race and skin tone in medical textbook imagery. *Social Science & Medicine*, 202, 38–42. <https://doi.org/10.1016/j.socscimed.2018.02.023>
- Machin, D. (2013). What is multimodal critical discourse studies? *Critical Discourse Studies*, 10(4), 347–355. <https://doi.org/10.1080/17405904.2013.813770>

- Mącznik, A. K., Ribeiro, D. C., & Baxter, G. D. (2015). Online technology use in physiotherapy teaching and learning: A systematic review of effectiveness and users' perceptions. *BMC Medical Education*, 15(160), 1–12. <https://doi.org/10.1186/s12909-015-0429-8>
- Massie, J. P., Cho, D. Y., Kneib, C. J., Sousa, J. D., Morrison, S. D., & Friedrich, J. B. (2021). A picture of modern medicine: Race and visual representation in medical literature. *Journal of the National Medical Association*, 113(1), 88–94. <https://doi.org/10.1016/j.jnma.2020.07.013>
- McGrath, R. L., Parnell, T., Verdon, S., & Pope, R. (2024). “We take on people’s emotions”: A qualitative study of physiotherapists’ experiences with patients experiencing psychological distress. *Physiotherapy Theory and Practice*, 40(2), 304–326. <https://doi.org/10.1080/09593985.2022.2116964>
- McGregor, S. (2001). Neoliberalism and health care. *International Journal of Consumer Studies*, 25(2), 82–89. <https://doi.org/10.1111/j.1470-6431.2001.00183.x>
- McKee, A. (2003). *Textual analysis: A beginner's guide*. SAGE Publications.
- Nicholls, D. (2018). *The end of physiotherapy*. Routledge.
- Nicholls, D. A. (2024). Is physiotherapy a luxury? What can the perplexing absence of the physical therapies tell us about the profession's future? *Physiotherapy Theory and Practice*, 40:8, 1815-1829. <https://doi.org/10.1080/09593985.2023.2211675>
- Nicholls, D. A., & GradDipPhys. (2012). Foucault and physiotherapy. *Physiotherapy Theory and Practice*, 28(6), 447–453. <https://doi.org/10.3109/09593985.2012.676937>
- Nixon, S. A. (2019). The coin model of privilege and critical allyship: implications for health. *BMC Public Health*, 19(1), 1637–1637. <https://doi.org/10.1186/s12889-019-7884-9>
- O'Connor, M., & Payne, S. (2006). Discourse analysis: Examining the potential for research in palliative care: Palliative care research methodology. *Palliative Medicine*, 20(8), 829–834.
- O'Keeffe, M., Cullinane, P., Hurley, J., Leahy, I., Bunzli, S., O'Sullivan, P. B., & O'Sullivan, K. (2016). What influences patient-therapist interactions in musculoskeletal physical therapy? Qualitative systematic review and meta-synthesis. *Physical Therapy*, 96(5), 609–622. <https://doi.org/10.2522/ptj.20150240>
- Öhman, A., Stenlund, H., & Lars, D. (2001). Career choice, professional preferences and gender? The case of Swedish physiotherapy students. *Advances in Physiotherapy*, 3(3), 94–107. <https://doi.org/10.1080/140381901750475348>
- Pauwels, L. (2012). A multimodal framework for analyzing websites as cultural expressions. *Journal of Computer-Mediated Communication*, 17(3), 247–265. <https://doi.org/10.1111/j.1083-6101.2012.01572.x>
- Perry, S. M. (2021). "Diversity, equity, and inclusion"- Catchy slogans and buzzwords with little proof that they matter to the legal profession in Massachusetts. *Boston College Law Review*, 62(8), 2747–2758.
- Pusey-Reid, E., Quinn, L. W., Wong, J., & Wucherpennig, A. (2023). Representation of dark skin tones in foundational nursing textbooks: An image analysis. *Nurse Education Today*, 130, 105927–105927. <https://doi.org/10.1016/j.nedt.2023.105927>

- Rachul, C., & Varpio, L. (2020). More than words: how multimodal analysis can inform health professions education. *Advances in Health Sciences Education: Theory and Practice*, 25(5), 1087–1097. <https://doi.org/10.1007/s10459-020-10008-9>
- Riley, R., Buszewicz, M., Kokab, F., Teoh, K., Gopfert, A., Taylor, A. K., Van Hove, M., Martin, J., Appleby, L., & Chew-Graham, C. (2021). Sources of work-related psychological distress experienced by UK-wide foundation and junior doctors: a qualitative study. *BMJ Open*, 11(6), e043521–e043521. <https://doi.org/10.1136/bmjopen-2020-043521>
- Riley, R., Spiers, J., Buszewicz, M., Taylor, A. K., Thornton, G., & Chew-Graham, C. A. (2018). What are the sources of stress and distress for general practitioners working in England? A qualitative study. *BMJ Open*, 8(1), e017361. <https://doi.org/10.1136/bmjopen-2017-017361>
- Ross, M. H., Hammond, J., Bezner, J., Brown, D., Wright, A., Chipchase, L., Miciak, M., Whittaker, J. L., & Setchell, J. (2022). An exploration of the experiences of physical therapists who identify as LGBTQIA+: Navigating sexual orientation and gender identity in clinical, academic, and professional roles. *Physical Therapy*, 102(3), 1–10. <https://doi.org/10.1093/ptj/pzab280>
- Rouvinen, H., Jokiniemi, K., Sormunen, M., & Turunen, H. (2021). Internet use and health in higher education students: a scoping review. *Health Promotion International*, 36(6), 1610–1620. <https://doi.org/10.1093/heapro/daab007>
- Shields, A. B., & Peruta, A. (2019). Social media and the university decision. Do prospective students really care? *Journal of Marketing for Higher Education*, 29(1), 67–83. <https://doi.org/10.1080/08841241.2018.1557778>
- Sinno, J., Daroya, E., Wells, A., Hull, M., Lachowsky, N. J., Tan, D. H. S., & Grace, D. (2024). “To do so in a patient-centred way is not particularly lucrative”: The effects of neoliberal health care on PrEP implementation and delivery. *Social Science & Medicine*, 347(116749), 1–9. <https://doi.org/10.1016/j.socscimed.2024.116749>
- Slemon, A., Wonsiak, T., Delli Colli, A. R., Blanchet Garneau, A., Varcoe, C., & Bungay, V. (2024). Social justice in Canadian nursing professional documents: A Foucauldian discourse analysis. *Nursing Inquiry*, 31(e12653), 1–14. <https://doi.org/10.1111/nin.12653>
- Smith, D. E. (2001). Texts and the ontology of organizations and institutions. *Studies in Cultures, Organizations and Societies*, 7(2), 159–198. <https://doi.org/10.1080/10245280108523557>
- Social Theory Re-Wired: New Connections to Classical and Contemporary Perspectives. (2014). *Profile: Michel Foucault*. Ringgold, Inc. Retrieved from <https://routledgesoc.com/profile/michel-foucault>
- Stommel, W., & Rijk, L. d. (2021). Ethical approval: none sought. How discourse analysts report ethical issues around publicly available online data. *Research Ethics Review*, 17(3), 275–297. <https://doi.org/10.1177/1747016120988767>
- Tannen, D., Hamilton, H. E., & Schiffrin, D. (2015). *The handbook of discourse analysis* (2nd ed.). John Wiley & Sons, Inc.

- Tracy, S. J. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative Inquiry*, 16(10), 837–851.
<https://doi.org/10.1177/1077800410383121>
- Vazir, S., Newman, K., Kispal, L., Morin, A. E., Mu, Y. Y., Smith, M., & Nixon, S. (2019). Perspectives of racialized physiotherapists in Canada on their experiences with racism in the physiotherapy profession. *Physiotherapy Canada*, 71(4), 335–345.
<https://doi.org/10.3138/ptc-2018-39>
- Wegrzyn, P., Judge, M., Lu, R., & Smith, M. (2021). A reorientation of belief: Considerations for increasing the recruitment of Black students into Canadian physiotherapy programs. *Journal of Humanities in Rehabilitation*, Fall, 1–18.
<https://doi.org/10.18737/0607101054>
- White, C., & Cameron, J. (2015). A critical discourse analysis of representations of occupational therapy and occupations in medical media. *Brighton Journal of Research in Health Sciences*, 1(2), 1–15.
- Whitehead, C. R., Hodges, B. D., & Austin, Z. (2013). Dissecting the doctor: From character to characteristics in North American medical education. *Advances in Health Sciences Education: Theory and Practice*, 18(4), 687–699.
<https://doi.org/10.1007/s10459-012-9409-5>
- World Physiotherapy. (2024). *Equality, equity, diversion and inclusion*. Retrieved from <https://world.physio/congress-proceeding/equality-equity-diversity-and-inclusion-wpsem-02>
- Zhou, X., & Hall, J. N. (2018). Mixed methods papers in first-person and third-person: Writing voices in dialogue. *Journal of Mixed Methods Research*, 12(3), 344–357.
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Pre-amble to Chapter Four

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Chapter Four: On Becoming a ‘Good’ Physiotherapist

Abstract

Historically, the physiotherapy profession has been shaped by people who are white, able-bodied, and from higher social classes. Unfortunately, physiotherapy education continues to reproduce racist, ableist, sexist, classist and other discriminatory logics in the construction of a ‘good’ physiotherapist. Physiotherapy students must negotiate this legacy while developing their professional identity. The educational experiences of students from historically excluded communities can draw attention to how prejudiced reasonings manifest in contemporary physiotherapy programs and professional practices.

Using Bourdieu’s Theory of Practice, we sought to highlight the valued capital in the physiotherapy education field and how it creates social advantages for those who possess it, social disadvantages for those who do not possess it, and subsequent discrimination in the profession.

This longitudinal case study employed: 1) one-on-one virtual semi-structured interviews; 2) reflexive journaling; and 3) virtual focus groups over a six-month period. Eleven physiotherapy students identifying with more than one marginalized identity from across Canada participated.

In developing their professional identity in physiotherapy programs, these students experienced assumptions about the presence of certain forms of capital which were

inaccessible to some of them. In addition to other forms of capital already recognized in the literature, we found physiotherapy education was structured to assume ‘ideal’ mental and physical health, non-religiosity, and financial stability of students. That is, a ‘good’ physiotherapy student is presumed to be someone who experiences no barriers to participating in physiotherapy education, which then marginalizes students who have financial, religious, and/or health-related (mental and/or physical) demands that potentially compete with and may undermine program participation. The field condition, therefore, grants a competitive edge to students who are able to have a constant and complete focus.

Introduction

In the field of physiotherapy, there is a growing chorus of calls for social justice in the profession (Dhir et al., 2022). These calls have shaped the most recent accreditation standards for physiotherapy entry-to-practice education (Canadian Physiotherapy Association, 2024; Chartered Society of Physiotherapy, 2021; Physiotherapy Education Accreditation Canada, 2021; World Physiotherapy, 2024), during which physiotherapy students form their professional identity. Within entry-to-practice education, physiotherapy students acquire knowledge, skills, and behaviours that are part of the physiotherapy curriculum (Canadian Council of Physiotherapy University Programs, 2019; Physiotherapy Education Accreditation Canada, 2021) to help them form their professional identity. However, identity formation moves beyond the curriculum to include implicit ways of learning and teaching (Balmer et al., 2015). Physiotherapy education may be contradictory to professional calls for social justice if the curriculum is delivered without consideration of the ideological assumptions that drive them, or the power relations that may be present, and whose interests these serve (Gibson & Teachman, 2012).

Educational practices may reinforce hierarchies, privileging those whose social identities are dominant in Western culture and disadvantaging those whose identities have been marginalized. The purpose of this research was to highlight the valued capital, or “resources that are useful for power and which can be used to control objects, persons and institutions” (Bonello et al., 2018), in the field of physiotherapy education. Additionally, we sought to explore how this capital creates social advantages and

disadvantages in the professional field. We respond to the call by Bulley and colleagues (2025) for academics in physiotherapy and health professional education more broadly to “explore the views that have been oppressed” (Bulley et al., 2025, p. 180) to ensure the success of *all* students:

Dismantling the power dynamic requires listening to and from students about their experiences of inequity, incorporating this into learning for those involved in health professional education and ensuring that dominant ideologies are discussed and questioned in educational research. (Bulley et al., 2025, p. 180)

Literature review

People from historically under-represented groups are growing in numbers in university programs. In 2023, 77% of first year students at the U15 Canadian universities⁹ self-identified as being part of a visible minority (up from 39% in 2017 and 28% in 2006) and 17% identified as part of the LGBTQ2S+ community (up from 14% in 2017) (University of Toronto Institutional Research and Data Governance, 2025). To date, no published analyses consider how this trend translates into the racial or sexual/gender identities of physiotherapy students specifically, but we anticipate that these changing demographics hold true for most Canadian programs.

Professional pre-licensure education is a key period during which students form their professional identity (Cruess et al., 2019; Johnson et al., 2012). As students become

⁹ U15 is a group of the top 15 Canadian research universities, for more information, click [here](#).

professionals, they explore their new-found identity or "ways of being or relating in a professional context" (Goldie, 2012, p. 1). Professional identity development (PID) is a continual, iterative process built on the confluence of education, the individual's personal lived experience, and membership in the profession. The importance of a focus on PID in health professional education is well established (Johnson et al., 2012; Mackey, 2007). Studies in nursing theorize that professional identity is linked to self-concept, or how professionals think and feel about themselves, as well as occupational identity (Johnson et al., 2012). Formation of professional identity occurs prior to entering nursing education, throughout the educational process, and evolves through nurses' careers (Johnson et al., 2012), a finding relevant across health professions.

Educators must understand the formation of professional identity and the forces dominating this process to engage health professional students meaningfully regarding their professional identities. It is incumbent upon educators to reflect on these forces and how they are contributing to students' PID, as the characteristics of a 'good' professional are cultivated through influence and through social processes (Wagner & Jackson, 2021). These influences are not always obvious or explicit.

Physiotherapy PID occurs within a field that has historically excluded learners from marginalized social groups. In Canada, qualitative work with Black physiotherapists (PTs) and physiotherapy students found the profession to be a "white space" (Wegrzyn et al., 2021, p. 2) where whiteness is dominant in professional imagery and in the people within the profession, and accepted as 'normal'. This orientation to whiteness limits both the entry of Black people into the profession and their mobility once practicing (Wegrzyn et al.,

2021). The authors state that a Black person may not be able to connect with or picture themselves in the profession (Wegrzyn et al., 2021). This finding resonates with another qualitative study on racialized PTs in Canada (Vazir et al., 2019), which included students who self-identified as non-white¹⁰ (due to their skin colour or association with a non-European place of ancestry, n=10) and Indigenous (n=2). Vazir and colleagues (2019) describe that participants report experiences in the profession categorized in three levels of racism: institutional racism; personally mediated racism; and internalized racism. Both of these Canadian studies encourage entry-level programs in physiotherapy to make explicit issues regarding race and racism, to recognize “certain inherited processes and ways of doing that are assumed to be more legitimate or valuable than others” (Wegrzyn et al., 2021, p. 13), and to advocate for equitable access to professional programs for prospective racialized students (Vazir et al., 2019). Lurch and colleagues (2023) similarly argue that the profession was built on European epistemologies and that moving physiotherapy forward demands “more diversity of thought” (p. 1) in physiotherapy research and in education. The exclusion of and challenges experienced by non-white individuals in the physiotherapy profession, and the professions’ lack of diversity of thought, is consequential for students’ PID.

In addition to tensions in the profession regarding race and ethnicity, issues regarding gender exist in some national physiotherapy contexts, which Stenberg and

¹⁰ Contrary to the [APA Style](#) to capitalize the first letter of a race, we have chosen to not capitalize white (and use a lower case ‘w’) as the capitalization follows the practice of white supremacists. We acknowledge that Black and First Nations, Inuit and Métis people each have a shared sense of identity, history and culture (and use an uppercase on the first letter), as per the [Columbia Journalism Review](#).

colleagues (2021) argue constitutes a “gender regime”: “an overrepresentation of women professionals while the men professionals, as a group, have more power both at the organizational level and in high-status professions within the organization” (p. 5). This gender regime influences PTs’ professional roles and choices during their career, where male PTs in Sweden were more likely to choose sports medicine and occupational health three years after graduation, and female PTs tended to opt for health promotion and rehabilitation (Stenberg et al., 2021). Women PTs in Sweden also reported higher levels of total work when accounting for unpaid labour at home (Enberg et al., 2007) and a pay gap in Aotearoa New Zealand means that female PTs earn, on average, \$1.10/hour less than male PTs, and averaging a yearly annual income of \$21,489 less than male PTs (Cullen, 2023). Similarly, criticism in medical education describes the curriculum as being “habitually formed through the discourse of patriarchy” (Bleakley, 2013, p. 66). In medical education, gendered experiences are shown to influence the development of students’ professional identity (Brown et al., 2020).

The context for students’ entry to the profession, in Canada at least, includes calls for social justice (Dhir et al., 2022), and policies and practices in educational programs throughout Canada evolving to include equity, diversity, and inclusion (e.g., [University of Manitoba](#), [University of Saskatchewan](#)). The importance of EDI-inclusive physiotherapy education is highlighted by the addition of specific criteria related directly to social justice, human rights, equity, diversity, and inclusion in the Accreditation Standards for Entry-to-Practice Physiotherapy Education Programs (Physiotherapy Education Accreditation Canada, 2021).

To date, few studies have explored the considerations of race, gender, class, sexuality and/or other marginalized social identities in the profession of physiotherapy and in students' PID. A meta-ethnography in medicine showed research currently explores race and ethnicity, but the compounding impact of multiple marginalized identities, or intersecting forms of oppression, in medical students' PID is absent (Wyatt et al., 2021). We do not know how students with intersectional identities perceive implicit messaging in teaching and learning contexts and how those influence their sense of being a professional.

In this work we take a critical approach to link experiences of physiotherapy students with multiple marginalized social identities with PID. We build upon Pierre Bourdieu's Theory of Practice to frame how physiotherapy students with multiple marginalized identities experience their PID within the context of a profession that is unwelcome, both historically and in the present.

Theoretical frameworks

Using a critical paradigm to inform research on PID allows for the exploration of unspoken conventions and structural influences that lead to power imbalances and oppression and therefore opens avenues to change them. French sociologist Pierre Bourdieu provides a critical theoretical foundation to examine social and cultural reproduction, and how power and structures preserve inequities (Bonello et al., 2018; Bourdieu & Nice, 1977; Tichavakunda, 2019). His theory focuses on practice, which Bourdieu views as not only the everyday actions of people, but also as the social structures

set and defined by the actions of people, based on their particular background and knowledge (Webb et al., 2017). Bourdieu seeks to make observable the reproduction of hierarchies in the social and cultural world through examining people's activities in everyday life. To understand how Bourdieu's Theory of Practice can help to study PID, first we briefly introduce the theory's three key concepts: habitus, field and capital. We elaborate on how intersectionality theory enhanced our research. Then, we discuss how these theoretical frameworks oriented our analysis.

Habitus, field, and capital interrelate in the Theory of Practice. Bourdieu defines habitus as a "system of dispositions", where a disposition is "*a way of being, a habitual state [...] and, in particular, a predisposition, a tendency, propensity or inclination*" (Bourdieu & Nice, 1977, p. 214) (original emphasis). Individuals develop these dispositions through their upbringing, background, culture, and education in particular fields. These learned dispositions shape an individual's current and future practice (Maton, 2014).

Bourdieu uses different metaphors to describe field, including a force field: "defined by the structure of the existing balance of forces between forms of power, or between different species of capital" (Bourdieu & Wacquant, 1992, p. 76). Bourdieu also invokes the metaphor of the football field, meaning where the game is played and where players (agents or individuals) look to make the most of their different positions (Thomson, 2014). Individuals exist in multiple social fields at the same time, and these fields can influence each other (Bourdieu, 1993). For example, a PT attending a medical appointment with their aging parent belongs to the field of their profession, their domestic or family field and the healthcare consumer field simultaneously.

Gaining advantage in the field is achieved through the possession of capital. Forms of capital exist beyond purely material possessions, including cultural, social and symbolic forms (Bourdieu, 1986). Cultural capital can be thought of as ‘status’ and includes knowledge and behaviours cultivated through education, art and literature. The embodied form of cultural capital exists when it is within the person or part of their consciousness, such as body language, stance, tone, and lifestyle (Bourdieu, 2002). Social capital is attained through relationships and connections (Bourdieu, 1986). Symbolic capital describes those commodities that a profession recognizes as valuable and legitimate, for example, prestige, and reputation (Bonello et al., 2018; Bourdieu, 1986). Symbolic capital is different than economic capital as the goal or endgame of economic capital is instant and transparent (Bourdieu, 1986; Moore, 2014) as profit, interest, and wages, for example. Symbolic capital still has end goals, but they are hidden, arbitrary and not based on actual increases in worth or superior values (Moore, 2014). The particular field determines the worth of an individual’s capital (Tichavakunda, 2019).

Bourdieu theorizes the dynamic relationship between the three interrelated concepts of habitus, field, and capital. People’s past experiences (including upbringing) within their contexts (social class, nationality, etc.) shapes their world views and gives them a “feel for the game” in particular fields (Bourdieu, 1993). Habitus links past, present and future, as well as the individual with the society of which they are a member (Maton, 2014). Habitus, developed over experience, pre-disposes us to act in certain ways. Yet behaviour (or practice) cannot be explained only by habitus; it is also influenced by the present circumstances (the field) and the resources (or capital) that one brings to the field. People

who are in dominant positions in the field's hierarchy have a habitus that matches the field as well as embodied cultural capital that is achieved through "prolonged exposure to a specialized social habitus" (Moore, 2014, p. 107). When a person joins a new field, their capital and actions informed by habitus may or may not match the new field. This situation highlights the interconnectedness of habitus, capital, and field.

For Bourdieu, an individual's habitus is constantly changing. In times of personal and social constancy, this change happens slowly. This phenomenon is what he describes as a person being a 'fish in water' – where habitus and field are well matched (Bourdieu & Wacquant, 1992). In moments of intense pressure or difficulty, such as sudden changes in field conditions, there is a disruption between habitus and field and the person is a 'fish out of water' (Bourdieu, 2005). Hysteresis is the term used to describe this disturbance in the relationship between habitus and field and the consequences of this over time (Hardy, 2014), which includes "a lag in adaptation and counter-adaptive mismatch" (Bourdieu, 2005, p. 214). For example, the emerging role of artificial intelligence (AI) in healthcare may provoke hysteresis among healthcare clinicians or educators whose dispositions make them unable or resistant to engaging with it. Consequently, those who delay engagement may lose capital in their field, while others whose habitus aligns with new technology adoption may rapidly gain capital and an improved field position.

Bourdieu's studies often include class as the central tenet, but the Theory of Practice has widely been taken up by researchers to engage with additional social identities, such as racial (Tichavakunda, 2019), gender (Lovell, 2000), and disability (Edwards & Imrie, 2003) identities. There is value in engaging in theoretical expansions that "enable a more

nuanced understanding of how complex and intersecting social inequalities” are realized (Webb et al., 2017, p. 140). In their article on thinking with and beyond Bourdieu for higher education, Webb et al. (2017) encourage the use of intersectionality as a theoretical extension, stating that its use “...might be a fruitful way to explore how inequalities have been reproduced (or not) in contexts where social class groupings are not considered the sole locale for struggles for power and resources” (p. 154).

Intersectionality is a critical theory that helps interpret the unique experiences of individuals from multiple marginalized identities as they navigate through oppressive systems (Duran & Jones, 2019). Kimberlé Crenshaw introduced the term intersectionality in 1989 to highlight the unique experiences of Black women in the legal system in the United States (Cho et al., 2013; Duran & Jones, 2019). Crenshaw argued that viewing Black women’s experiences through only one axis of identity, by just focusing on race or sex, does not fully capture the overlapping systems of oppression felt at the juncture of race *and* sex (Crenshaw, 1991). By investigating the locus where these axes of oppression converge (or intersect), there is revealed a “completely new status, that is more than simply the sum of its individual parts” (Hankivsky & Christoffersen, 2008, p. 275). While Crenshaw’s work on intersectionality was built on the “feminist and antiracist convergence” (Crenshaw, 2010, p. 152), she is clear in stating that intersectionality is not limited to those issues. Intersectionality shapes every aspect of research, including the design, data collection, analysis and reporting of findings (Duran & Jones, 2019). While this study does not offer a full intersectional analysis, using intersectionality as a theoretical framework (or framework extension, in this case) means that we considered the multiple

power structures at play and how they influenced the students' identity development (Duran & Jones, 2019). Therefore, it opens the concomitant exploration of the individual with multiple structures of power, consistent with Bourdieu's theoretical concepts.

Methods

Instrumental case study

The methodology of this research is a case study in the critical paradigm, using Bourdieu's Theory of Practice. Specifically, we oriented to Stake's definition of a single instrumental case study where "a particular case is examined mainly to provide insight into an issue or to redraw a generalization" (Stake, 2000, p. 437). The boundaries of the case were defined by group and environment (Miles et al., 2014). The group was Canadian, English-speaking physiotherapy students with multiple marginalized identities. The environment for the case study was Canadian university physiotherapy programs. Though program sites differed, the shared population characteristics and broader accreditation standards context lent itself to a within-case study design. All U15 Canadian universities offering a program in physical therapy undergo a strict accreditation process that ensures an "agreed-upon standard of quality" (Physiotherapy Education Accreditation Canada, 2026).

Sampling and recruitment

Eleven (11) current physiotherapy students enrolled in English-speaking Canadian entry-to-practice physiotherapy programs who self-identified with more than one marginalized identity were recruited for the study. Using intersectionality as a theoretical

extension meant that individuals from marginalized groups were central to the research. Recruitment strategies for a purposive sample included requesting all English-language entry-to-practice physiotherapy programs in Canada¹¹ distribute a physical and virtual recruitment poster to their students, posting an invitation to participate in the study in the Canadian Physiotherapy Association's newsletter, and inviting participants to share the study. This final technique, called snowball sampling, is useful in accessing marginalized populations in qualitative research (Atkinson & Flint, 2004; Noy, 2008). Participants identified their interest through a digital form or emailing L. Harvey; L. Harvey then contacted them by phone for screening and to confirm interest. Then, they filled out a brief demographic questionnaire that asked them to share their identities. Once interest and eligibility were confirmed, participants signed a consent form (Appendix Two). Eleven (11) students completed one-on-one interviews (see Appendix Three for the interview guide), with ten (10) physical therapy students continuing the study. The ten students next completed audiodiaries (see end of Appendix One for the description of the audiodiaries given to participants, Appendix Three for the introduction to the audiodiaries and Appendix Four for the follow up email sent to participants regarding the audiodiaries) and finally participating in one of four (4) distinct focus groups (see Appendix Five for the focus group guide) with the same interviewer (L. Harvey). All data was included in the analysis. The project was approved by the Health Research Ethics Board at the University of Manitoba (H2022:307).

¹¹ University of British Columbia, University of Alberta, University of Saskatchewan, University of Manitoba, McMaster University, Queen's University, University of Toronto, Western University, McGill University and Dalhousie University) (Canadian Council of Physiotherapy University Programs, 2022).

Participant characteristics

Table 2: *Participant characteristics*

Participant-selected pseudonym	Participant-disclosed marginalized identities
Claire	A white woman with mental health diagnoses
Jade	A Catholic woman of colour and an immigrant to Canada
Elena	A woman of colour from a low socioeconomic background
Elizabeth	A neurodivergent white woman with chronic illness and mental health diagnoses
Tina	A Catholic woman of colour
Isabella	A Catholic woman of colour and an immigrant to Canada
Zainab	A Muslim woman of colour
Kaylie	A white woman with chronic illness and mental health diagnoses
Mariam	A Muslim woman of colour
Ivan	A man of colour from a low socioeconomic background
Darra	A Muslim woman of colour

Data collection

We used the following methods, listed chronologically, to collect data between April and November 2023:

1. individual semi-structured, open-ended interviews via videoconferencing;
2. participant reflexive journals completed by audiodiary;
3. virtual focus groups, including hand mapping.

The use of multiple data sources within the case study allowed for a broader understanding of the case, where “one is left with more to pay attention to rather than less” (Stake, 2009, p. 6). The use of multiple methods over time permitted participants to explore their experiences in physiotherapy education, allowing for deeper understanding (Tracy, 2010). Additionally, multiple data collection methods assisted in substantiating the findings (Staa & Evers, 2009; Tracy, 2010).

We created questions for the interview guide (Appendix Three) based on the purpose they were intended to serve. For example, the first question sought to build rapport: “What interested you about this study?” Subsequent questions were intended to highlight their intersectional identities, for example: “In the questionnaire you filled out, you describe yourself as _____ and _____ (insert marginalized identities). What is it like to be _____ and _____ in physiotherapy?” Later in the interview, the questions were framed around Bourdieu’s Theory of Practice, for example probing for types of symbolic capital: “What do you see as things that give someone prestige or recognition in physiotherapy?”. L. Harvey allowed the participants to answer freely, which occasionally meant subsequent questions veered from the guide, probing where needed and allowing time and space for open dialogue. The average length of the interviews was 76 minutes (range 68 minutes to 96 minutes).

Upon completion of the interviews, L. Harvey sent an email to participants with guidance for completing the audiodiaries (Appendix Four). Ten participants provided at minimum two and at maximum five separate voice memos for audiodiaries. The average

length of the audiodiaries was 3 minutes and 46 seconds (range of 0:43 minutes to 10:15 minutes).

The prompts for the focus group were purposefully created after the one-on-one interviews and audiodiaries to invite further reflection around the students' conceptualization of their PID (Appendix Five). The focus group opened with hand-mapping, as a technique to initiate reflection before the discussion. The focus groups lasted an average of 88 minutes (range of 84 - 92 minutes).

Reflexivity

Reflexivity is “a process of internal dialogue and critical self-evaluation of a researcher’s positionality as well as active acknowledgement and explicit recognition that this position may affect the research process and outcome” (Berger, 2015, p. 220). L. Harvey is a white, cis-gendered, heterosexual, able-bodied female from a middle to high socioeconomic background. She recognizes that all but one of these identities have given her unearned privilege in her life. She is wife to a non-white partner and mother to mixed-race children. She has worked as a PT, and at the time of the study was a physiotherapy educator with experiences as an official or unofficial mentor to many physiotherapy students with many different marginalized social identities. She recognizes that each of these identities and experiences influenced her perceptions in this project. She engaged in this research with the goal of critical allyship (Nixon, 2019) and by using her unearned privilege to “actively challenge the oppressive systems and practices that are still pervasive in the health professions” (Lurch et al., 2023, p. 4).

P. Thille is a PT and feminist medical sociologist who applies critical theory to highlight and disrupt discriminatory logics in health services and health professions education. She does so from multiple positions of privilege, including as a white woman of settler lineage, now highly educated and economically secure. In her own research, she strives to do work that is accountable to the communities affected by discrimination. Her role in the study was as supervisor of L. Harvey, offering theoretical, methodological, and analytic support and facilitating an ongoing reflexive dialogue about assumptions and values shaping the work.

Given the privilege both authors share, L. Harvey engaged a group of critical friends to advise the research. An accountability process found in the education field, a critical friend is a “trusted person who is invited to join a [...] research project based on the qualities of knowledge, experience and skills” (Mat Noor & Shafee, 2020, p. 6). Friends are chosen because they are comfortable challenging the researcher, partially addressing power differentials. The three critical friends shared one or more of the same marginalized identities as the participants. Each provided guidance on my recruitment material, piloted the initial interview and were provided with the draft findings for review (Nixon, 2019).

Analysis Methods

Acknowledging that participants may not overtly discuss structures of inequality in relation to their experiences means it is incumbent upon the researcher to articulate that which is not obvious (Duran & Jones, 2019). To do so, we worked with the data in multiple ways that supported depth of interpretation, including applying the following analytic

devices Eakin and Gladstone (2020) propose: reading for the invisible, reading for anomaly, writing as analysis and reading for gestalt (Eakin & Gladstone, 2020). The interviews and focus groups were audio and video recorded, and along with the audiodiaries, were transcribed by L. Harvey using a consistent transcription format (Bailey, 2008). To summarize and interpret each participant's data individually, L. Harvey immersed in each participant's individual longitudinal data, then prepared a descriptive summary of their experiences. This included looking for meaning embedded within the text or reading 'between the lines', or reading for the invisible (Eakin & Gladstone, 2020). From these descriptive summaries, and returning to transcripts, L. Harvey posed interpretive questions relating to Bourdieu's theoretical concepts. This interpretation included, but was not limited to, the concepts of the participants' habitus, the field of physiotherapy education and the positions within it, and different forms of capital that are valued in physiotherapy education, in each person's data. Then, we completed cross-participant comparisons to find commonalities and differences. We paid particular attention to reading for anomaly (Eakin & Gladstone, 2020), or "questioning what is seen as "normal" [and] what is taken for granted" (p. 7). The goal in the whole analytic process is to move from the more general to more specific and nuanced interpretations through an "iterative, spiraling, or cyclical process" (Staa & Evers, 2009, p. 4). Throughout the process, we engaged in writing as analysis (Eakin & Gladstone, 2020), through reflective journaling, and note taking through each analytic step. Finally, we tied our interpretations to the bigger context, or what Eakin and Gladstone refer to as "reading for gestalt" (Eakin & Gladstone, 2020, p. 9).

Findings

Habitus and field: Who has a ‘feel for the game’ of physiotherapy?

Students who achieve dominant positions come into the field of physiotherapy education with a ‘feel for the game’ thanks to a match between their habitus and the field. These students are the ‘fish in water’; their dispositions match the field, and they feel at ease and able to prosper. Our participants easily identified the dispositions that those peers possessed, which allowed them to appear to have a feel for the game of physiotherapy. In many cases, these dispositions mismatched with their own habitus, resulting in periods of hysteresis for our participants.

One helpful disposition is being outspoken. Says Tina, in answer to interview question six about what gives someone prestige or recognition in physiotherapy (see Appendix Three):

I definitely think like, the people in my class that are super extroverted and they’re not afraid to like, just go ahead, like answer the question, or like, be the model for the class, or like, anything like that, like, they take initiative and then they like, go talk to profs. Like, they go do those, all those extracurricular things. I feel like those are the people that definitely get recognition. (Tina, individual interview).

Isabella, when asked about what gives someone prestige in physiotherapy, states, “Umm well, I know that like, in our class like, I think people who are very confident in themselves. The ones that are more like, outspoken and generally pick things up faster” (Isabella, individual interview).

An outspoken nature can at least partly be attributed to the confidence gleaned from a habitus developed through acceptance and high status in previous fields. Participants described this habitus as typical of being white and being male. Elena concisely links maleness, whiteness, and being outspoken when she says, *“I think it is mostly like, the guys that speak in our class, who are white”* (Elena, individual interview).

Conversely, our participants recognized that they were ‘fish out of water’, where the relationship between their habitus and the field of physiotherapy education do not correspond. What they experienced is consistent with hysteresis. Says Zainab,

I wasn't as athletic as a male or some other one of my classmates, and that would put me at a disadvantage coming into physiotherapy because I don't have that background and that knowledge moving forward or like, that ability to like, relate to some of my clients. (Zainab, individual interview)

Valued capital in the field of physiotherapy education

We identified three types of valued capital in the field of physiotherapy education that have not been previously discussed: embodied cultural capital through ‘ideal’ mental and physical health and symbolic capital through non-religiosity and financial stability.

‘Ideal’ mental and physical health: *ability to work at a very demanding pace for a long period of time.*

Our participants recognized that the ‘ideal’ therapist’s body, i.e., a muscular and slender, in the field of physiotherapy, provides valued capital in the field. Elizabeth articulates the unspoken narrative of a fit, able-bodied PT: *“I think the, the classic is, you*

know, physios are here for the, the exercise and, you know, we're really the exercise and movement specialists and I think because of that, we get a bias towards those really physically fit" (Elizabeth, individual interview). Darra paints a picture in her reflective diary entry:

...if you were to close your eyes and envision what the physiotherapist is, they would say, 'oh, physiotherapist is an athlete, an elite athlete even, who played sports their entire life' and they saw the impact and magnitude of physio, or physical therapy on life and they want to make that a common theme, and get the general public to feel the same way and to appreciate physical activity. But it's clouded with, 'are you an athlete,' and if a physiotherapist or a classmate is sitting by and they're not an athlete, they're given that down look [sic] of like, 'what on earth are you doing in this program, do you know that this program is full of sports?' (Darra, audiodiary).

Tina provides a similar view of the 'ideal' body in physiotherapy:

Yeah, I think there's definitely like, a body type that you like, see in your mind when you think of physio and like, I feel like, that's really hard because a lot of... most people are not gonna be the white male that goes to the gym every single day. (Tina, individual interview)

Kaylie recognized that having 'ideal' mental and physical health are valued capital in physiotherapy education. She talks about the struggles to disclose (or not) her (mostly) invisible mental health and chronic illness identities:

But, umm, there were times where I was kind of worried that if I told someone about it, well, then that's just another thing that might hinder me, kind of deal. So, at school I was very careful to not [sic] tell any of the instructors or anything. I know if I had to disclose on a paper, I would, like a health form, but other than that, I honestly kind of kept it quiet because I also was worried about when I was getting a job. (Kaylie, individual interview)

Elizabeth speaks to how her health conditions can make the work of being a 'physiotherapy student' challenging:

Umm, you know times when, uh, my neurodivergency [sic] makes it hard to, you know, continue with a certain task or, you know, with a certain patient or my, you know, physical ability status makes it harder to show up on days. (Elizabeth, individual interview)

Claire echoes the sentiment that the field not only values exceptional mental health, but also seems to be punitive towards students having mental health issues:

Sometimes it's like, it's a very go, go, go, program and you don't have time to have those issues. And then you, kind of, feel like you can't ask for time off because of those issues because it, it just kind of feels like you're gonna be set back when it's like, I don't need to be set back. (Claire, individual interview)

Later in the interview, she goes into more detail about the various serious mental health issues she was experiencing, including suicidal thoughts. She did not disclose her health problems to faculty.

...I was really struggling and like, the program doesn't allow for time to take off. And that's what really bothered me was like, there's no such thing as, like, taking a couple days for yourself or like, I don't know... [voice trails off]. (Claire, individual interview)

Her perception, due to the field of physiotherapy education valuing thinness, fitness and implied healthiness, was that she could not ask for time off, that she could not possibly be absent. The field conditions are such that students would risk serious health problems rather than miss a day or two of classes.

Non-religiosity: *and/or an assumption of de-prioritizing religious beliefs*

Being non-religious, and/or an assumption of de-prioritizing religious beliefs is a form of symbolic capital in the field of physiotherapy academic education. Isabella has a moment of realization of difference from her colleagues, by the reactions her classmates had when she brought up her faith:

I'm like, I'm Catholic. And I do recall having a conversation with my [small] group because... [trails off] I feel like, what, kind of, gets me through like, the hard times of school is also my faith. But I'm not like, very open about it. But, I think part of getting through the program is like, try to like, support each other and lift each other up and, and I think I - one time I was like, 'you know, just like, pray, and like, hopefully we'll get through this' and, and I think most of my group mentioned that they are not religious or that they... [trails off] Like, I think one of them was like, an atheist or something, and they just don't really like, cling on to that. And then I felt kind of

awkward and I'm just like, 'OK', and then so I just like, 'I'm not gonna bring it up anymore'. (Isabella, individual interview)

Institutional demands turn non-religiosity into capital. The value of being non-religious is reinforced in the field of physiotherapy education by making students choose between their religious practices and the field practices. Mariam describes this conflict in terms of the temporal and geographical limitations that the program applies, which makes it challenging for her to engage in her religious practices. *"The, the closest – uh, Muslims pray five times a day and a lot of times because our classes go into like, even like, sometimes 4:30, 5 [pm], the closest prayer room is like, almost across campus"* (Mariam, individual interview).

Mariam, following her religiously guided dress as a Muslim woman, also struggled with the expectation of being in various stages of undress for practical skills labs:

Like, I always feel a little bit uncomfortable when everyone takes like, their shirt off and has you know, a sports bra on under and starts practicing their PIVMs/PAVMs [manual therapy technique], whatever. And then, I'm like, the only student that doesn't. And then, I feel like, the sense of, like, guilt with my partner, where it's like, you're at a disadvantage. But then, like, if you don't choose me, then no one will choose me because, like, why would someone want to, like, make it more difficult to practice on? (Mariam, individual interview)

Dress in the field of physiotherapy education impacts students of other faiths. Jade, in her reflexive journaling, states:

And as a practicing Catholic, one of the values that has been instilled in me since I was a young girl was the value of being a conservative dresser. So, I was raised to not really expose my body as much, especially when choosing clothes to wear at school or in public. [...] So, it did make me feel a bit uncomfortable to be doing the opposite in these labs. (Jade, audiodiary)

Financial stability

Having financial stability meant students had the privilege of not having to work in paid employment while studying physiotherapy. This is a type of symbolic capital that the profession values and legitimates. Ivan, who comes from a low socioeconomic background, stated that the demanding nature of the program meant he had to work hard to save money prior to entering his educational program:

I had to do a lot of planning prior to, because when you go into physiotherapy, depending on where you go, I would say in Canada, it's a two-year long hurdle with no breaks. You get some breaks in between, but they're not really considered breaks. (Ivan, individual interview)

Elena shares how having to work affects her performance in the academic program:

So, yeah, being from like a lower socioeconomic status and like, having to work to like, you know, pay the bills and buy my own groceries and everything like that I think for sure, has a negative impact because I'm not able to spend as much time reviewing the material or studying for exams. We recently had a group project where

I did very, very, very little because I had, every time they decided to meet, I had to go to work. (Elena, individual interview)

In this study, students who came from higher socioeconomic backgrounds recognized their capital as being something that gave them privilege and prestige. Claire states,

And so, I, like, my financial background like, I just feel really lucky and the same with physio like, I haven't had to – like, I just took a student loan this last year and that's not common. Like, there's so many kids that have hundreds of thousands of dollars in loans, because that's what they've needed to get where they want to go. (Claire, individual interview)

Isabella similarly noticed how her peers, seemingly from a higher socioeconomic class, would speak about money and consumerism.

I noticed that with most of my peers, they, they don't seem to have a problem with like, I don't know, I think a lot of their... I don't want to like... Well, I don't know what the right word is, but like the problems that they have or that they are openly speaking about in regards to like, I guess like, leisure and finance. I'm like, 'wow, like I wish I had that problem', [facilitator agrees] but, yeah, like, like, [they'd say] 'Oh my God. Like, I'm ruining my life. Like, I'm spending like, \$1000 on this new jacket' and like, it's just stuff like that. And I'm just like, 'wow, like, it's, that's a great problem to have'. (Isabella, individual interview)

Perpetuation of inequities in the field

Bourdieu's concepts of symbolic violence and misrecognition further explain how inequities are preserved in the field of physiotherapy education. Bourdieu states that social hierarchies and inequities are preserved not by physical force, but by what he calls 'symbolic violence' (Bourdieu & Wacquant, 1992). Symbolic violence includes domination of one social group over another (Schubert, 2014). This type of violence is much more subtle than any physical form, which makes it often unseen and therefore very effective (Bourdieu & Eagleton, 1991). Bourdieu sees language as a form of symbolic violence in that, "...language is as much – or is perhaps more – an instrument of power and of action than of communication" (Bourdieu & Eagleton, 1991, p. 111). Bourdieu sees language as 'linguistic exchange' (Bourdieu & Eagleton, 1991), which is socially situated and the value of one's what one is saying depends on their social authority and the conditions of the field, or the 'linguistic market' (Bourdieu & Thompson, 1991).

In education, often the people with the most cultural capital are the ones who succeed, become dominant and are the perpetrators of symbolic violence, though often unknowingly (Bourdieu & Wacquant, 1992). With this, there is a misrecognition of field mechanisms that create hierarchies as instead a natural superiority, such as assertions that they're naturally smarter or more talented. For Bourdieu, "misrecognition [is] the fact of recognizing a violence which is wielded precisely inasmuch as one does not perceive it as such" (Bourdieu & Wacquant, 1992, p. 168). In turn, this misconception works to maintain the status of the dominant and, at the same time, intensify the symbolic violence of the oppressed. Paradoxically, our participants resisted the acceptance of the subjective

nature of this classification as inferior yet also demonstrated acts of submission to the symbolic violence in two ways: by being silent and by avoidance.

Physiotherapy education and symbolic violence

Experiences of symbolic violence in the physiotherapy academic field

Symbolic violence maintains white dominance in the field of physiotherapy academic education. For example, Elena spoke about an incident during lunch where a peer's comment made her feel very uncomfortable:

But then, one day I had like just, I brought... I'm not Korean, but I brought Korean noodles to school for lunch one day, and I was just eating it. And one of my friends who's a male and he's white, he was like, "oh, that's such an Asian food." And I was like, that's such a weird comment, like, I would never look at you and be like, "that's such a white lunch." Like, that makes no sense to me. (Elena, individual interview)

Participants also reported that their instructors sometimes centered whiteness as the norm. Zainab recalls her instructors' presumption of whiteness when describing medical conditions that cause skin changes in patients:

So, for example, when we talk about pallor and cyanosis and things like that, we always have pictures of a white person. It always is discussed as a white person and same with our, the experiences of our professors. They all talk about it in the context of a white person. Umm, so one time in class when we were talking about it, one of us put up our hand. It was like, 'what would this look like on a colored person?' It's not... someone's skin is not going to necessarily be yellow if they have jaundice, or if

they have no oxygen, it's not gonna look like that if they're brown or black and whatever, and our professors, both of them, did not know how to answer that question. (Zainab, individual interview)

Male instructors were also perceived as engaging in symbolic violence towards female students regarding their gender. Kaylie says,

Like, I know in smaller groups like, one time, and this was only one time, but someone ... one of them said to me, 'OK well, don't do it like a girl.' And I was like, 'I am a girl' and that's exactly how I said it because I thought it was kind of jokey (sic). It's like, 'I am a girl', you know? And they're like, 'Oh, no, no. You know what I mean.' And I was like, 'I don't know what you mean.' (Kaylie, individual interview)

Kaylie's response displays her resistance towards this symbolic violence. In other instances, participants reported relying on peers to silently challenge the violence. Zainab recalls a similar incident perpetrated by male instructors, how she and other female classmates responded to it, and how it made her feel:

And also, in the language that a lot of the professors used with being a strong male, 'you're not a strong male' like, it was always brought up and there was a group of us that would always look at each other and be like, we'd roll our eyes. 'Cause what does that mean? We would always roll our eyes. Um, but as a female, I found that to be challenging and disheartening. And like you were, what's the word? Um, not shutting down my abilities, but, um, undermining my abilities as a female. (Zainab, individual interview)

Symbolic violence was used to maintain the dominance of those who are non-religious or those whose religious practices do not conflict with physiotherapy education. Darra expressed the discomfort she felt when a male instructor did not respect her religious boundaries of not having skin-to-skin contact between herself and males in the classroom, reinforcing that non-religiosity is the preferred capital for students:

I've had situations where we're doing like a spinal manip (sic) [manual therapy technique] and I am the patient for my classmate and the prof comes and, no skin-to-skin for the same reasons I just explained - he does not see that, and he just lifts the shirt off of my back. I'm like, this is not OK'. (Darra, individual interview)

Experiences of symbolic violence in the physiotherapy clinical field

In their physiotherapy educational program, students engage in experiential learning where they are supervised by clinical PTs, treating patients in their place of work. Participants shared experiencing symbolic violence during physiotherapy clinical education from patients and from their clinical instructors. Zainab describes symbolic violence in patient interactions on clinical placements and how it made her feel:

Umm, I've had people be like, oh, there's like, 'I've never had a brown physio.' 'I've never had a colored physio' or 'you don't see colored physio. You don't see Indian physios' Like, first of all, I'm not Indian [laughs], I'm not, I'm Pakistani, there's that. [Facilitator gives supportive statement]. There's a lot of assumptions of like, 'oh, like, when did you come to Canada?' and like, 'actually, I was born in [home city]' and they're like, 'no way.' And I'm like, 'why is that so shocking?' Umm, it's it always,

it's just like, a topic of conversation. So, I think that... I don't know, it makes me feel like I'm less. (Zainab, individual interview)

Mariam, in the focus group, asked another participant if her experiences of symbolic violence had an emotional effect on her. She prefaced her question by describing her own clinical education experience being a Muslim woman who wears a hijab in a private clinic:

So, I think we were probably seeing at least like, 40 patients a day and every patient would ask like, 'so where are you from?' 'What's the head scarf?' 'Where are you ACTUALLY [emphasis added] from?' So, like, did you ever find that? Do you ever find, I guess, generally, like, that education can become a bit draining for you, or exhausting? (Mariam, focus group 1)

Elena echoed the 'othering' that non-white physiotherapy students experience in clinical physiotherapy education when patients ask about their place of birth: *"The amount of times I've gotten that question as well, and it's like, it's almost like, if you're white at the default, like, you're automatically from here. That's the norm. And if you're not white, then it's - you must be from somewhere else."* (Elena, focus group 4)

Symbolic violence based on gender was also described in the clinical education settings. Tina talked about the fear associated with having patients making sexual advances:

But sometimes it can be a little scary, 'cause sometimes, like older men, will make those comments and it's a little uncomfortable. And so, then I have to, like, navigate that appropriately. But that's definitely something that has happened. Like, I've had

a client literally give me his card. He was a photographer. He's like, 'you, you need to come model for me.' And I was like, 'I'm not gonna do that, but thank you.' So, I think like, yeah being like, a woman, you kinda have to navigate advances like that too, and just like make sure you have boundaries up. (Tina, individual interview)

Elizabeth identified sexist language that she overheard while on placement:

I had a male preceptor in my last placement and times when he would be treating a male patient, and they would just be having conversations. Umm, you know nothing that was technically bad, but it was the jokes and stuff that you know weren't, on a base level, they were harmless, but I guess with the history of being a female and having those exposures, it was actually a little off-putting of, you know, it actually had an undertone of, you know, sexism or, you know, rape culture and things. (Elizabeth, individual interview)

Responses to symbolic violence

Some students reported remaining quiet and docile when experiencing symbolic violence, solidifying the role of the oppressed: *“Yeah, that’s, that’s something I just realized now, but also like, going through school, I think...to make myself fade more into the background, I’d really stick to just being observational and like, submissive”* (Isabella, individual interview). She speaks further about her fear of not wanting to be a model for practical labs,

...but when it came to being a model for some reason, I would try to avoid it, right? I kind of like, would fear the time when I had to be a model, and I had to be observed for some odd reason. I, I like to think I was probably just like, insecurity (sic). I, I don't know why I felt that way, but I think the thought of, for me at least, I, I felt very self-conscious about how I, I guess, presented compared to my peers. (Isabella, individual interview)

Elena provided some insight into her reasoning for remaining mostly silent:

I’m the only person of colour in that, in that small seminar group that we’re talking about, like, I often won’t share my opinion because I just feel so left out. And like, no one will relate, and no one will understand me. And so, I’d rather just not share it for fear of being judged. (Elena, focus group 4)

Tina recognized that she is ‘put in her place’ and accepts this as logical, *“...physio school can make you feel real stupid sometimes”* (Tina, individual interview).

Three subfields of physiotherapy education

Bourdieu posits that large fields of power can be divided into subfields, where each subfield follows the overall logic of the large field, but also has its own internal rules and practices (Thomson, 2014). In analyzing the participants' interviews, we came to see that these students tended to separate physiotherapy education into three subfields: academic education; clinical education; and the future field of physiotherapy practice. They relegated the valued capital of the field of physiotherapy education, including forms of capital that they (mostly) did not possess, into the field of physiotherapy *academic* education, the first subfield of physiotherapy education. They contrasted this to a distinct field of physiotherapy *clinical* education, the second subfield, where they anticipated the valued capital to be different, and that allowed them to gain power in the field, but as described above, their experiences with patients and colleagues did not always align with this hope. They also imagined a future field of physiotherapy, the third subfield, where the dominant habitus and valued capital are vastly different, and where they could solidify a more prestigious position for themselves in the larger field of physiotherapy. The first subfield, the academic, was mostly confined to their learning spaces, which we have outlined extensively above. The second, the clinical subfield, extended beyond the classroom to a realistic practice setting and a wider group of people with whom they interacted. The third subfield identified was an imagined future, beyond any classroom or clinical experience they may have had, to the forthcoming stage when they would be practicing PTs.

The second subfield, the clinical field of physiotherapy education, introduced students to direct patient care for a wide range of patients. These students imagined their identities as reflecting new valued capital of relatability in the clinical education subfield. They felt this relational dimension enhanced patient care, thereby ensuring a higher position for them in the field. Jade states:

...having my unique intersectionalities or identities help me relate to “different” [mimes air quotes], although similar to myself, patients of like, different cultures and different racial backgrounds and ethnicities. (Jade, focus group 3)

Elizabeth stated that she experienced this connection as well in the clinical education field, *“So really thinking about how you know, even though I have a different identity than this patient, I can use my own experiences to really help me help them more”* (Elizabeth, focus group 1).

When asked what aspects give someone prestige or recognition in the profession of physiotherapy, Mariam imagined a future field: *“OK, so I’m gonna talk about the things that should [emphasis] give someone prestige”* (Mariam, individual interview). She went on to assign her habitus as a better fit, and her capital with higher value in this imagined field, *“I think the things that should give someone prestige in our profession are things like hard work. I think things like strong, like, academic research, like scholarly inquiry, given I have a bit of a research background, like, I put a lot of value on good research”* (Mariam, individual interview).

The imagined future field had some PTs with multiple marginalized identities as leaders and mentors. Says Elena, *“I hope to like, change, to like, start bringing change by like, inspiring others. Hoping like, the younger generation can, can sort of like, see themselves in, in me when I'm like, working and encouraging diversity”* (Elena, focus group 4). Mariam had a similar vision:

But I'm, I'm bringing in so much that is valuable because I'm, you know, like, this whole new generation of leaders and the new cohort that I can build, just showing that, ‘no, there is a space for us in this profession as well’. If you're a good person, to be honest, and you're hard working, that's all that should be valuable in this profession because that's all you need to be a good physiotherapy student and that's all you need to be a good physiotherapist. (Mariam, individual interview)

Participants’ sense of bringing physiotherapy to their cultural communities highlights how these students see their dominant position in the imagined future field of physiotherapy being transposable to their community’s social field. When speaking about how her community under-utilizes private practice physiotherapy, Zainab reflected on how her presence would be positive:

...and that's, that's huge for like, our community and like, that's not something that would happen like, I think like, I'm the first Muslim brown women who is in the Muslim community in [my city] to be a physiotherapist. (Zainab, individual interview)

Discussion

Participating physiotherapy students with multiple marginalized identities formed their professional identity while experiencing hysteresis, a lack of valued capital and, at times, symbolic violence in the field of physiotherapy education. The valued capital newly identified in our study (ideal physical and mental health, non-religiosity, and financial stability) suggests that physiotherapy education values a constant and complete focus. A ‘good’ physiotherapy student is someone who experiences no barriers or interruptions to the substantive demands of physiotherapy education. Set amongst the lack of other valued capital identified in the literature to date, discussed in more detail below, these inequities were reinforced and preserved in the field of physiotherapy education for participants in this study through symbolic violence. In expressing hope that their chosen field would recognize the forms of capital they do possess, student participants identified three subfields of physiotherapy education: academic physiotherapy education, clinical physiotherapy education, and the future physiotherapy profession. It is in the latter field where they imagined solidifying their professional identity as belonging in the field in a way that was often not possible during physiotherapy education. These influences on PID are reflected in other work in health professional education.

Fish out of water

Physiotherapy in Canada and the United Kingdom (Yeowell, 2013) lacks diversity and is “oriented to and around whiteness” (Wegrzyn et al., 2021, p. 6). In their study with seven Black PTs, two university staff members and one Black physiotherapy student,

Wegrzyn et al. (2021) describe that “whiteness may not be apparent to those whose identities align with the orientation of the space (i.e., those who are white)” (p. 6), aligning with Bourdieu’s concepts of how the field and habitus align for white PTs, where they are ‘fish in water’. Physiotherapy students in the United Kingdom who identified as “BAME (Black, Asian and Minority Ethnic) individuals” (Hammond et al., 2019, p. 2) described an “acute awareness of a position as an ‘outsider’ to what they perceived as white dominance within physiotherapy in comparison to other healthcare profession courses” (p. 8). Our work adds to the existing literature that highlights valued capital in physiotherapy as consisting of whiteness, those who speak English without an ‘accent’ and who were born in Canada (Vazir et al., 2019), those who are sporty and male (Dahl-Michelsen, 2014), or those who are just male (Stenberg et al., 2021).

Students from low socio-economic backgrounds entering the field of medicine in the United Kingdom expressed a mismatch of habitus and field (Krstić et al., 2025). Echoing our findings, they similarly linked students from privileged backgrounds exhibiting a habitus of “being very confident, competitive” (p. 6). Hammond and colleagues (2019) also describe the ideal PT ‘type’ as “being outgoing, flamboyant, socializing and going to the pub, being sporty or proactive and motivated” (p. 6). Our study adds context to the habitus of privilege, with suggestions that the habitus of being confident and competitive is also linked to being male and white and athletic.

Valued capital

Our findings show that a ‘good’ physiotherapy student is perceived as someone who can dedicate the majority of their time to the field of physiotherapy education. This implicit expectation speaks to the field condition being one that grants those students with a constant and uninterrupted focus *on* the field a competitive edge *in* the field. This scenario is most feasible for those students who do not have religious demands, financial demands, and mental and/or physical health demands.

Research in Australia with Muslim women PTs highlights that they fear the entry-level education practices will conflict with their beliefs, particularly around disrobing and physical contact (Jang et al., 2024). Among other factors, this perception can lead to a “diminished sense of belonging among Muslim women students” in their educational programs (Jang et al., 2024, p. 2158). This finding echoes the experiences of the Muslim women (Zainab, Mariam and Darra), and the two of the three Catholic women (Jade and Isabella) in our study as well.

A report on physiotherapy students’ financial debt from the United States highlights how early career PTs may make decisions on their career based on their debt that can be damaging to their professional goals (Shaibi et al., 2025). Examples of this are choosing a work setting that is not aligned with their desired practice of physiotherapy or working in locations without social support to improve their financial status (Shaibi et al., 2025). While the economic context for physiotherapy education in the United States and Canada is different, this concern demonstrates how the lack of financial capital in the field of

physiotherapy education can frame decisions in career choice that may further impact in PID. Additionally, American and Canadian students' experiences in this area have some overlap. 68% of Canadian physiotherapy students surveyed by Hall et al. (2021) reported having a student loan when they graduated from their education program. The requirement of finding a job to help ease their financial strain was identified as one of the five most influential factors contributing to employment decisions of Canadian physiotherapy students (Hall et al., 2021).

The valued capital of ideal mental and physical health for these physiotherapy students resonated with the broader societal discourse that health is a moral value associated with worthiness, hard work and discipline (Cairns & Johnston, 2015; Mollborn & Modile, 2022). This finding is reinforced by work with Australian early-career social workers that similarly identified an emphasis on needing to appear competent and appearing to cope, so much so that they often disregarded their physical and emotional health (Stewart & Fielding, 2022). Research conducted for another manuscript in this thesis (see Chapter Three) demonstrated PTs are portrayed as having ideal health on public-facing websites in Canada (Harvey et al., 2026). This finding implies that the valued capital of ideal health is reflected in the profession more broadly, and not just in physiotherapy education. As professional identity is influenced by exposure to the discipline prior to entry into health educational programs (Lewis et al., 2025), the value of ideal health is established before students enter their programs.

Symbolic violence in health professions

Symbolic violence experiences, as described in this study, work to maintain the hierarchies that are present in the profession of physiotherapy, specifically white dominance (Vazir et al., 2019; Wegrzyn et al., 2021; Yeowell, 2013), male dominance and non-religiosity. Othering is “a process whereby individuals and groups are treated and marked as different and inferior from the dominant social group” (Griffin, 2026). Othering is a form of symbolic violence that works to maintain the status quo.

Racialized PTs in Canada face institutionalized, personally mediated and internalized levels of racism, with institutional racism experienced most commonly (white dominance in the profession, differential access to employment, and leadership lacking diversity) (Vazir et al., 2019). Internalized racism manifests through feelings of “self-doubt, insecurity about competency, and experiences of not fitting in” (Vazir et al., 2019, p. 340). The language of domination and the symbolic violence therewithin is experienced by Black PTs in Canada who were “made to feel *different* or reminded of their Blackness within the white physiotherapy space” (original italics) (Wegrzyn et al., 2021, p. 7). Additionally, the tactics of remaining quiet, and downplaying or ignoring the racism (Vazir et al., 2019), or “imposed silence as a form of reactive invisibility” (Otubusen & Lurch, 2024, p.10) resonate with how some of our students responded to racist, gender-based, and other forms of symbolic violence, reinforcing their experiences of oppression.

Seeking a standing in the field

Graduates of allied health professions (including physiotherapy) across many countries (including Canada) “sought their place in the community and then discovered how to make their contributions” (Lewis et al., 2025). Our study’s finding that physiotherapy students envision a future field of physiotherapy that values them, supports the notion of students will seek to find their place in the physiotherapy community. This, however, may not happen as the students anticipate, as the contextual and relational realities of the workplace are shown to challenge and even transform PTs’ personal values (Hammond et al., 2016). Relating to future patients, being a role model to future students and contributing to their own ethnocultural community were ways our students imagined that they would make their contributions to a more just physiotherapy education field.

Limitations

Despite using an approach in recruitment requesting participants from any and all marginalized identities, many social identities were not present among our participants. For example, lacking are the student voices of First Nations, Métis and Inuit people, as well as anyone identifying as part of the 2SLGBTQIA+ community. The richness of their potential contributions cannot be understated, and future studies should seek to recruit these individuals specifically. In addition, sampling students with other competing time demands, for example, parents or other caregivers, would also strengthen our understanding of hierarchies in physiotherapy education and their reproduction.

In separating the field of physiotherapy education into three subfields (academic, clinical, and imagined future), these participants anticipated that their habitus aligned better with clinical field and the future field. However, their experiences did not always align with this optimism. Our interview questions, formed in the early stages of the research, did not probe for more detail about whether they found themselves better aligned with the clinical field and if they found their capital to be valued. This avenue could be an area for future work, investigating, for example, if their clinical instructors, peers or patients acknowledge their capital as valuable.

Conclusion

If the physiotherapy profession truly believes in the equity, inclusion and participation that it espouses, then the profession needs to disrupt unearned advantages in physiotherapy education. Valuing a diverse physiotherapy workforce means ensuring those students with multiple marginalized identities can develop their professional identity without experiencing symbolic violence or other forms of exclusion, contributing to their enjoyment and longevity in the profession. Programmatic changes can be a start. Serious investments in financial awards (not loans) for a large array of students that are widely publicized and recognize people with competing demands could address the financial demands of the program. Another could be deprioritizing the valued capital of constant and complete focus described in this study by allowing for part-time studies. To our knowledge, this option is currently unavailable in any physiotherapy programs in Canada.

Bourdieu theorizes, and many cases have shown, that those who hold power in the field will resist the loss of status that accompanies decentering and destabilizing the present forms of capital. He cautions us that this disruption has the potential to cause considerable discomfort for those who previously held power, thereby requiring meaningful consideration of how to anticipate and respond appropriately. And, according to Bourdieu's Theory of Practice, where fields always have sources of power, there will be new structuring, new hierarchies, and new valued capital, which could create new forms of symbolic violence and Othering.

Every established order tends to produce (to very different degrees and with very different means) the naturalization of its own arbitrariness. (Bourdieu & Nice, 1977, p. 164)

References for Chapter Four

- Atkinson, R., & Flint, J. (2004). Snowball sampling. In M. S. Lewis-Beck, A. Bryman, & T. F. Liao (Eds.), *SAGE encyclopedia of social science research methods* (Vol. 0, pp. 1044–1044). SAGE Publications. <https://doi.org/10.4135/9781412950589.n931>
- Bailey, J. (2008). First steps in qualitative data analysis: transcribing. *Family Practice*, 25(2), 127–131. <https://doi.org/10.1093/fampra/cmn003>
- Balmer, D. F., Quiah, S., DiPace, J., Paik, S., Ward, M. A., & Richards, B. F. (2015). Learning across the explicit, implicit, and extra-curricula: an exploratory study of the relative proportions of residents' perceived learning in clinical areas at three pediatric residency programs. *Academic Medicine*, 90(11), 1547–1552. <https://doi.org/10.1097/ACM.0000000000000755>
- Berger, R. (2015). Now I see it, now I don't: researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219–234. <https://doi.org/10.1177/1468794112468475>
- Bleakley, A. (2013). Gender matters in medical education. *Medical Education*, 47(1), 59–70. <https://doi.org/10.1111/j.1365-2923.2012.04351.x>
- Bonello, M., Wright, J., Morris, J., & Sadlo, G. (2018). Bourdieu and interprofessional education: what's the relevance? *Studies in Continuing Education*, 40(1), 1–16. <https://doi.org/10.1080/0158037X.2017.1360269>
- Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 15 – 29). Greenwell. <https://doi.org/10.1002/9780470755679.ch15>
- Bourdieu, P. (1993). *The field of cultural production: Essays on art and literature*. Columbia University Press.
- Bourdieu, P. (2002). The forms of capital. In N. W. Biggart (Ed.), *Readings in economic sociology* (pp. 280–291). <https://doi.org/https://doi.org/10.1002/9780470755679.ch15>
- Bourdieu, P. (2005). *The social structures of the economy*. Polity.
- Bourdieu, P., & Eagleton, T. (1991). Doxa and common life. *New Left Review (Online)*(191), 111–122.
- Bourdieu, P., & Nice, R. (1977). *Outline of a theory of practice*. Cambridge University Press.
- Bourdieu, P., & Thompson, J. B. (1991). *Language and symbolic power*. Harvard University Press.
- Bourdieu, P., & Wacquant, L. (1992). *An invitation to reflexive sociology*. University of Chicago Press.
- Brown, M., Hunt, G., Hughes, F., & Finn, G. (2020). 'Too male, too pale, too stale': a qualitative exploration of student experiences of gender bias within medical education. *BMJ Open*, 10(e039092), 1–14. <https://doi.org/10.1136/bmjopen-2020-039092>
- Bulley, C., Jagadamma, K. C., Culpan, J., & Lane, J. V. (2025). Belonging and identity in physiotherapy. In P. Thille, C. Hebron, R. Galvaan, & K. S. Groven (Eds.), *Inviting movements in physiotherapy: An anthology of critical scholarship* (pp. 166–189).

- Critical Physiotherapy Network and College of Rehabilitation Sciences, University of Manitoba. <https://doi.org/10.82231/S8HA-YK54>
- Cairns, K., & Johnston, J. (2015). Choosing health: Embodied neoliberalism, postfeminism, and the "do-diet". *Theory and Society*, 44(2), 153–175.
<https://doi.org/10.1007/s11186-015-9242-y>
- Canadian Council of Physiotherapy University Programs. (2022). *Canadian Programs*. Retrieved March 8 from <https://www.physiotherapyeducation.ca/programs.php>
- Canadian Council of Physiotherapy University Programs. (2019). *National physiotherapy entry-to-practice guidelines*.
[https://www.physiotherapyeducation.ca/jobs_docs/1620912656CCPUP_guidelines2019_final_0623DIGITAL%20\(1\).pdf](https://www.physiotherapyeducation.ca/jobs_docs/1620912656CCPUP_guidelines2019_final_0623DIGITAL%20(1).pdf)
- Canadian Physiotherapy Association. (2024). *Core Professional Values*. Retrieved August from <https://physiotherapy.ca/core-professional-values/>
- Chartered Society of Physiotherapy. (2021). *CSP equity, diversity and belonging strategy*. Retrieved August from <https://www.csp.org.uk/about-csp/equity-diversity-belonging/strategy>
- Cho, S., Crenshaw, K. W., & McCall, L. (2013). Toward a field of intersectionality studies: Theory, applications, and praxis. *Signs: Journal of Women in Culture and Society*, 38(4), 785–810. <https://doi.org/10.1086/669608>
- Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, 43(6), 1241–1299.
<https://doi.org/10.2307/1229039>
- Crenshaw, K. W. (2010). Close encounters of three kinds: On teaching dominance feminism and intersectionality. *Tulsa Law Review*, 46(1), 151–190.
- Cruess, S. R., Cruess, R. L., & Steinert, Y. (2019). Supporting the development of a professional identity: General principles. *Medical Teacher*, 41(6), 641–649.
<https://doi.org/10.1080/0142159x.2018.1536260>
- Cullen, J. (2023). Gender disadvantage in physiotherapy. *New Zealand journal of physiotherapy*, 51(2), 159–166. <https://doi.org/10.15619/nzjp.v51i2.351>
- Dahl-Michelsen, T. (2014). Sportiness and masculinities among female and male physiotherapy students. *Physiotherapy Theory and Practice*, 30(5), 329–337.
<https://doi.org/10.3109/09593985.2013.876692>
- Dhir, J., Blake, T., Cleaver, S., Smith-Turchyn, J., Miller, P., Smith, M., Udarbe Han, M., Gasparelli, K., & Wojkowski, S. (2022). The search for justice: Developing a collaborative understanding of health justice in physiotherapy. *Physiotherapy Canada*, 74(3), 227–229. <https://doi.org/10.3138/ptc-74-3-gee>
- Duran, A., & Jones, S. R. (2019). Using intersectionality in qualitative research on college student identity development: Considerations, tensions, and possibilities. *Journal of College Student Development*, 60(4), 455–471.
<https://doi.org/10.1353/csd.2019.0040>
- Eakin, J. M., & Gladstone, B. (2020). “Value-adding” analysis: Doing more with qualitative data. *International journal of Qualitative Methods*, 19, 1–13.
<https://doi.org/10.1177/1609406920949333>

- Edwards, C., & Imrie, R. (2003). Disability and bodies as bearers of value. *Sociology*, 37(2), 239–256. <https://doi.org/10.1177/0038038503037002002>
- Enberg, B., Stenlund, H., Sundelin, G., & Öhman, A. (2007). Work satisfaction, career preferences and unpaid household work among recently graduated health-care professionals - a gender perspective. *Scandinavian Journal of Caring Sciences*, 21(2), 169–177. <https://doi.org/10.1111/j.1471-6712.2007.00453.x>
- Gibson, B. E., & Teachman, G. (2012). Critical approaches in physical therapy research: Investigating the symbolic value of walking. *Physiotherapy Theory and Practice*, 28(6), 474–484. <https://doi.org/10.3109/09593985.2012.676936>
- Goldie, J. (2012). The formation of professional identity in medical students: Considerations for educators. *Medical Teacher*, 34(9), e641–e648. <https://doi.org/10.3109/0142159X.2012.687476>
- Griffin, G. (2026). *A dictionary of gender studies*. Oxford University Press.
- Hall, M., Mori, B., Norman, K., Proctor, P., Murphy, S., & Bredy, H. (2021). How do I choose a job? Factors influencing the career and employment decisions of physiotherapy graduates in Canada. *Physiotherapy Canada*, 73(2), 168–177. <https://doi.org/10.3138/ptc-2019-0059>
- Hammond, J. A., Williams, A., Walker, S., & Norris, M. (2019). Working hard to belong: a qualitative study exploring students from black, Asian and minority ethnic backgrounds experiences of pre-registration physiotherapy education. *BMC Medical Education*, 19(1), 372–383. <https://doi.org/10.1186/s12909-019-1821-6>
- Hammond, R., Cross, V., & Moore, A. (2016). The construction of professional identity by physiotherapists: a qualitative study. *Physiotherapy*, 102(1), 71–77. <https://doi.org/10.1016/j.physio.2015.04.002>
- Hang, Y., & Zhang, X. (2025). A systematic review of students' habitus in the higher education field: challenge and resilience. *Studies in Higher Education*, 50(4), 790–807. <https://doi.org/10.1080/03075079.2024.2357145>
- Hankivsky, O., & Christoffersen, A. (2008). Intersectionality and the determinants of health: a Canadian perspective. *Critical Public Health*, 18(3), 271–283. <https://doi.org/10.1080/09581590802294296>
- Hardy, C. (2014). Hysteresis. In M. Grenfell (Ed.), *Pierre Bourdieu: Key concepts* (2 ed., pp. 126–145). Routledge.
- Harvey, L., Webber, S., Rachul, C., & Thille, P. (2026). *Is this the right profession for me? A critical discourse analysis of public-facing physiotherapy websites [Manuscript in preparation]*.
- Jang, S., Costa, N., Rusinga, A., & Setchell, J. (2024). Exploring physiotherapy education in Australia from the perspective of Muslim women physiotherapy students. *Physiotherapy Theory and Practice*, 40(9), 2150–2159. <https://doi.org/10.1080/09593985.2023.2230597>
- Johnson, M., Cowin, L. S., Wilson, I., & Young, H. (2012). Professional identity and nursing: contemporary theoretical developments and future research challenges. *International Nursing Review*, 59(4), 562–569. <https://doi.org/10.1111/j.1466-7657.2012.01013.x>

- Krstić, C., Tulloch, A., Krstić, L., Agius, S., Warren, A., & Doody, G. (2025). Habitus transformation of students from low socioeconomic backgrounds at medical school: the five core narratives. *BMC Medical Education*, 25(1), 1266–1288. <https://doi.org/10.1186/s12909-025-07580-2>
- Lewis, A., Jamieson, J., & Smith, C. A. (2025). Professional identity formation in allied health: A systematic review with narrative synthesis. *Teaching and Learning in Medicine*, 37(1), 24–40. <https://doi.org/10.1080/10401334.2023.2290608>
- Lovell, T. (2000). Thinking feminism with and against Bourdieu. *Feminist Theory*, 1(1), 11–32. <https://doi.org/10.1177/14647000022229047>
- Lurch, S., Cobbing, S., Chetty, V., & Maddocks, S. (2023). Challenging power and unearned privilege in physiotherapy: lessons from Africa. *Frontiers in Rehabilitation Sciences*, 4(1175531), 1–5. <https://doi.org/10.3389/fresc.2023.1175531>
- Mackey, H. (2007). Do not ask me to remain the same?: Foucault and the professional identities of occupational therapists. *Australian Occupational Therapy Journal*, 54(2), 95–102. <https://doi.org/10.1111/j.1440-1630.2006.00609.x>
- Mat Noor, M. S. A., & Shafee, A. (2020). The role of critical friends in action research: A framework for design and implementation. *Practitioner Research*(3), 1–33. <https://doi.org/10.32890/pr2021.3.1>
- Maton, K. (2014). Habitus. In M. Grenfell (Ed.), *Pierre Bourdieu: Key concepts* (2 ed., pp. 48–64). Routledge.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis : a methods sourcebook* (Edition 3. ed.). SAGE Publications, Inc.
- Mollborn, S., & Modile, A. (2022). “Dedicated to being healthy”: Young adults’ deployments of health-focused cultural capital. *Social Science & Medicine*, 293(114648). <https://doi.org/10.1016/j.socscimed.2021.114648>
- Moore, R. (2014). Capital. In M. Grenfell (Ed.), *Pierre Bourdieu: Key concepts* (2 ed., pp. 98–113). Routledge.
- Nixon, S. A. (2019). The coin model of privilege and critical allyship: implications for health. *BMC Public Health*, 19(1637), 1–13. <https://doi.org/10.1186/s12889-019-7884-9>
- Noy, C. (2008). Sampling knowledge: The hermeneutics of snowball sampling in qualitative research. *International Journal of Social Research Methodology*, 11(4), 327–344. <https://doi.org/10.1080/13645570701401305>
- Otubusen, O., & Lurch, S. (2024). Examining anti-Blackness in Canadian physiotherapy education using critical race theory and critical race feminism as theoretical perspectives. *Journal of Humanities in Rehabilitation*, 1–18.
- Physiotherapy Education Accreditation Canada. (2021). *Accreditation Handbook for Education Programs*. <https://peac-aepc.ca/pdfs/Resources/Accreditation%20Handbooks/PEAC%20Program%20Accreditation%20Handbook.pdf>
- Physiotherapy Education Accreditation Canada. (2026). *About Accreditation: Overview*. Physiotherapy Education Accreditation Canada. <https://peac-aepc.ca/about-accreditation/overview/>
- Schubert, J. D. (2014). Suffering/symbolic violence. In M. Grenfell (Ed.), *Pierre Bourdieu: Key concepts* (pp. 179–194). Rutledge.

- Shaibi, S., Robinson, B., Qi, Y., Lampe, A., Coppard, B., & Rossi, G. D. (2025). *Qualitative study on student debt: Implications for physical therapists' professional and personal lives*. <https://doi.org/10.21203/rs.3.rs-6701681/v1>
- Staa, A., & Evers, J. (2009). Qualitative analysis in case study. In A. Mills, G. Durepos, & E. Wiebe (Eds.), *Encyclopedia of case study research* (Vol. 2, pp. 749–757). SAGE Publications, Inc. <https://doi.org/10.4135/9781412957397>
- Stake, R. (2000). Case studies. In N. Denzin & Y. Lincoln (Eds.), *Handbook of Qualitative Research* (2 ed., pp. 435–454). SAGE Publications, Inc.
- Stake, R. (2009). The case study method in social inquiry. In R. Gomm, M. Hammersley, & P. Foster (Eds.), *Case study method* (pp. 18–26). SAGE Publications Ltd. <https://doi.org/10.4135/9780857024367>
- Stenberg, G., Fjellman-Wiklund, A., Strömbäck, M., Eskilsson, T., From, C., Enberg, B., & Wiklund, M. (2021). Gender matters in physiotherapy. *Physiotherapy Theory and Practice*, 1–14. <https://doi.org/10.1080/09593985.2021.1970867>
- Stewart, C., & Fielding, A. (2022). Exploring the embodied habitus of early career social workers. *Australian Social Work*, 75(4), 495–507. <https://doi.org/10.1080/0312407X.2021.1980070>
- Thomson, P. (2014). Field. In M. Grenfell (Ed.), *Pierre Bourdieu: Key concepts* (2 ed., pp. 65–80). Routledge.
- Tichavakunda, A. A. (2019). An overdue theoretical discourse: Pierre Bourdieu's theory of practice and critical race theory in education. *Educational Studies*, 55(6), 651–666. <https://doi.org/10.1080/00131946.2019.1666395>
- Tracy, S. J. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative Inquiry*, 16(10), 837–851. <https://doi.org/10.1177/1077800410383121>
- University of Toronto Institutional Research and Data Governance. (2025). *Results of the National Survey of Student Engagement 2023*. <https://data.utoronto.ca/surveys/nsse-dashboard/>
- Vazir, S., Newman, K., Kispal, L., Morin, A. E., Mu, Y. Y., Smith, M., & Nixon, S. (2019). Perspectives of racialized physiotherapists in Canada on their experiences with racism in the physiotherapy profession. *Physiotherapy Canada*, 71(4), 335–345. <https://doi.org/10.3138/ptc-2018-39>
- Wagner, A., & Jackson, C. (2021). Developing grit and resilience: Using concurrent learning experiences to deepen attributes of professional identity formation. *New Directions for Teaching and Learning*, 2021(168), 79–88. <https://doi.org/10.1002/tl.20470>
- Webb, S., Burke, P. J., Nichols, S., Roberts, S., Stahl, G., Threadgold, S., & Wilkinson, J. (2017). Thinking with and beyond Bourdieu in widening higher education participation. *Studies in Continuing Education*, 39(2), 138–160. <https://doi.org/10.1080/0158037X.2017.1302926>
- Wegrzyn, P., Judge, M., Lu, R., & Smith, M. (2021). A reorientation of belief: Considerations for increasing the recruitment of Black students into Canadian physiotherapy programs. *Journal of Humanities in Rehabilitation*, Fall, 1–18. <https://doi.org/10.18737/0607101054>

- World Physiotherapy. (2024). *Equality, equity, diversion and inclusion*. Retrieved August from <https://world.physio/congress-proceeding/equality-equity-diversity-and-inclusion-wpsem-02>
- Wyatt, T. R., Balmer, D., Rockich-Winston, N., Chow, C. J., Richards, J., & Zaidi, Z. (2021). 'Whispers and shadows': A critical review of the professional identity literature with respect to minority physicians. *Medical Education*, 55(2), 148–158. <https://doi.org/10.1111/medu.14295>
- Yeowell, G. (2013). 'Isn't it all Whites?' Ethnic diversity and the physiotherapy profession. *Physiotherapy*, 99(4), 341–346. <https://doi.org/10.1016/j.physio.2013.01.004>

Pre-amble to Chapter Five

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Chapter Five: The Helping Hand: Using the arts-informed method of hand-mapping in qualitative research with physiotherapy students

Abstract

Qualitative researchers may invite people to discuss difficult experiences. While exploring professional identity development (PID) of physiotherapy students who come from historically excluded communities, we required ethical methods that support open dialogue. We anticipated an arts-informed method called hand-mapping could help us meet this aim. Hand-mapping is a visual arts-informed method and a means of visual storytelling.

We sought to explore how the method of hand-mapping influenced the content and group interactions within the focus groups of physiotherapy students. Focus groups with hand-mapping were the final data collection process in a larger project, preceded by one-on-one interviews and reflective journaling. We analyzed the four focus group transcripts with ten physiotherapy students from across Canada to describe a) the content connected to the hand-mapping, and b) how integrating their hand-maps influenced the group interaction, particularly during sensitive moments.

Participants described the hand-map within our focus groups to be symbolically powerful in various respects including representing the profession in more nuanced ways than words alone could accomplish. When sharing their hand-maps, difficult moments

were validated and/or expanded on by participants through deep exploration, and participants affirmed each other's experiences.

The hand-maps enabled meaningful visual connections to be made to the field of physiotherapy, while helping to create an environment for meaningful discussion on difficult topics. Our analysis identifies the potential of combining focus groups with arts-informed methods like hand-mapping.

Introduction

Qualitative research may involve topics that are sensitive in nature, such as racism, sexual health and behaviours, and mental health, among many others. Sensitive discussions may also emerge from topics considered non-sensitive by the researchers (Varpio & McCarthy, 2018). To enhance the core principles of ethical conduct in research (in Canada, respect for persons, concern for their welfare, and justice) (Government of Canada, 2022), and minimize the risks of re-traumatizing participants who have experienced trauma (Nolan, 2025), researchers must choose methods that respect privacy and, when in groups, foster psychologically safe dialogue while discussing difficult experiences. Arts-informed methods may better meet this aim than more traditional methods. Improving understanding of the types of methods that provide this vital support empowers researchers to institute ethical approaches and avoid harming participants.

We anticipated an arts-informed method called hand-mapping could provide this support by creating opportunities for private reflection before sharing in a focus group. Arts-informed methods offer “an expressive outlet to access tacit knowledge and process experiences in ways that go beyond conventional language.” (Trout, 2025, p. 3). The topic was PID of physiotherapy students who come from historically excluded communities in the profession. The focus groups were the third and final data collection process in a larger project, following one-on-one interviews and reflective journaling by the same participants. In the focus groups, we asked participants a series of questions that embedded our earlier findings, inviting them to reflect anew on their experiences in the program and how their

identity/identities shaped their responses and strategies to manage these experiences. The purpose of this article is to explore how the method of hand-mapping, combined with facilitated dialogue, influenced the content of the discussion and group interactions within the focus groups of physiotherapy students with multiple marginalized identities.

Background/Literature Review

Focus groups are a common qualitative research method where a facilitator engages a small group of participants to discuss a topic (Kitzinger, 1995). The group environment creates different dynamics than one-on-one interviews (Kitzinger, 1995; Liamputtong, 2011). This method can help participants to expand upon and clarify their views in a way that would not be available to them with one-on-one interviews, through hearing and responding to the responses of others (Kitzinger, 1995). Within a focus group discussion, conversation may address difficult or taboo topics, creating what Kitzinger and Farquhar (1999) call ‘sensitive moments’ for participants to navigate. They describe sensitive moments as times when a participant’s comment in a focus group elicits reactions from others such as: “...hesitation and awkwardness, reactions of shock or surprise, individual defensiveness or tentative collective exploration... [which] indicate that discussion is going beyond the pre-rehearsed shared public knowledge” (Kitzinger & Farquhar, 1999, p. 3).

During sensitive moments, as during the larger discussion, there is the potential that not all members will be heard within the focus group, either passively, due to participants waiting to be called upon by the moderator (Acocella, 2012) or more actively

by being silenced as the “individual voices of dissent” (Kitzinger, 1995, p. 2). Method choices can create an environment where participants feel more or less comfortable in expressing themselves. In a review exploring the choice and use of visual methods in qualitative research, Pain (2012) reports that visual methods enhance data collection through rapport building between researcher and participants, facilitating communication, facilitating expressions of subconscious and tacit knowledge, accessing the difficult-to-reach groups or places, and encouraging reflection. In our project, we chose the visual method of a participant-constructed hand map. Hand-mapping is a form of body-mapping, a visual arts-informed method (Dew & Smith, 2025) and a means of visual storytelling (Watson & Barton, 2020). Thoughtful creation of a visual (Barbour, 2014) creates the opportunity for participants to reflect before speaking, shifting the focus group discussion out of everyday conversational norms, where, depending on the cultural conventions of the group, silences tend to be brief and uncomfortable (Alerby & Alerby, 2003).

Focus group analysis should consider group interaction, given it is inherent in the method of focus groups (Kitzinger, 1994) where participants “are not isolated individuals but are engaged in a conversation” (Silverman, 2017, p. 8). Silverman (2017) distinguishes between instances and sequences in interactional data, such as focus groups. Instances are comments about the phenomenon in question, often shared by researchers through quotations as evidence of cross-cutting themes. He argues that analyzing instances alone is insufficient and reduces the quality of qualitative research. Instead, given that meaning is constructed through the conversation, or the “sequences of interaction” (Silverman, 2017, p. 35), analysis must address sequences of meaning construction. Arts-informed

methods within the focus group can provide valuable ways to enhance this conversation, as deeper meaning-making through accessing tacit knowledge in creative ways is central to these approaches (Knowles & Cole, 2008; Trout, 2025).

Arts-informed methods have been used in health and health professional education (HPE) research. Much of the HPE focus highlights incorporation of the arts-informed pedagogies for teaching students, including the creation of art as an educational tool (Moniz et al., 2021). This approach has been used with occupational therapy students (Kinsella & Bidinosti, 2016), medical students (Schamroth et al., 2025) and in interprofessional education (Slater et al., 2025). Fewer studies mobilize arts-informed methods in research with health professional students, though some examples include Varpio et al. (2017) and Brand et al. (2016). Arts-informed methods have been used extensively in education, and social sciences and humanities.

Arts-informed methods can move beyond the traditional cognitive/verbal methods in qualitative research to document how participants make meaning of their experiences (Murray et al., 2023). Creative methods allow for the exploration of experiences (including social and emotional) that may be difficult to recount (Murray et al., 2023). Arts-informed practices are useful in research involving identity work as “research in this area frequently focuses on communicating information about the experiences associated with differences, diversity, and prejudice” (Leavy, 2020, p. 25). Arts-informed methods enhance engagement of participants from under-represented groups dealing with complicated experiences (Furman et al., 2019). Despite the promising benefits of using arts-informed methods, they

have not been widely reported in HPE, including the specific methods of hand and/or body mapping.

The potential benefits of using body-mapping are many. A systematic review by de Jager et al. (2016) developed seven themes highlighting how body-mapping has been used in qualitative research: “as a means of sharing stories via research co-production, for political advocacy, for communication/installation, as a teaching tool or for educative purposes, for planning, as a child-centered method, and finally, for therapy or healing” (de Jager et al., 2016, p. 11). In mental health research, a scoping review by Murray et al. (2023) found body-mapping allowed for “the exploration of difficult-to-access emotions and experiences [...], fostered an exploration of participants’ strength and resilience, [...] was identified as therapeutic, [...] appeared to be participatory and collaborative, [...] empowered participants and allowed their voices to be disseminated, [...] [and] suited to research with younger populations” (Murray et al., 2023, pp. 903–904). While these reviews demonstrate the potential for how and why this method can be useful, we have not found contributions that explore how body-mapping shapes group dialogue. Our study contributes to building an understanding of the combination of body-mapping with focus groups. We aim to describe how the method influenced the content of our focus groups, and how the participants interacted with each other with and without facilitator support.

Methods

Our work is based on a constructivist epistemological stance situated within a larger critical study. The larger study aimed to highlight the valued capital in the field of

physiotherapy education. This present study orients to meaning-making of the lived experiences of the participants, aligning with constructivism (Denicolo et al., 2016, Chapter 3). Within a constructivist approach, interactive methods of data collection support shared control of the dialogue among participants and the researchers (Denicolo et al., 2016, Chapter 5). By using methods "that partner well with espoused theories and paradigms" (Tracy, 2010, p. 848), we aim to achieve meaningful coherence in this study (Tracy, 2010).

Virtual focus groups with hand-mapping were the final data collection process in a larger project. Focus groups followed one-on-one interviews and reflective journaling by participants completed in the months prior. We sought to substantiate our analytic insights from the one-on-one interviews and diaries, and to create opportunities for new insights through the focus group interaction. We chose to add hand-mapping to start the focus groups, to allow for personal reflection before sharing in the group, and to spark more tacit responses from participants. Prior to hand-mapping, each focus group started with a 'group agreement' presented as a PowerPoint slide by the facilitator and accepted by all participants; these included requests to be mindful of their tendencies (e.g., interrupting or talking little), to ask questions, to recognize their biases and to speak about their reactions.

Hand-mapping involves the facilitator guiding participants to trace their hand, then to respond intuitively (McCorquodale & Deluca, 2020) to prompts to fill the hand with words, pictures or designs. The prompts for this project were purposefully created after the one-on-one interviews and diaries to invite further reflection around the students' conceptualization of their PID. The focus group opened with hand-mapping, as a technique

to initiate reflection before the discussion. The hand-mapping process took an average of 28 minutes (range 25 – 32 minutes), within focus groups that lasted an average of 88 minutes (range of 84 - 92 minutes). Participants were also encouraged to add to their maps throughout the discussion (Pearson et al., 2018).

The reflective questions/prompts for hand-mapping were:

Prompt 1

Many of you talked about how the absence of anyone like you in your physiotherapy program has, at times, made you become a spokesperson or an advocate for yourself or for people with similar identities. On the thumb of your hand, please describe some of the techniques you have employed to make your identities more ‘seen’ by your classmates, instructors or patients.

Prompt 2

Conversely, all of you spoke about times in the program when you felt hyper-visible because of your identities. On the index finger, please describe techniques or strategies you use to make yourself fade into the background.

Prompt 3

Most of you spoke to me about how you use the strengths from your identities to help make you a better physiotherapist. Using the third finger, draw or describe how your intersecting identities enhance you as a physiotherapist.

Prompt 4

All of you spoke about doing extra work to enhance your safety and experience relating to your identities, including internet searching, or speaking to professors, in preparation for either fieldwork/clinical placements or academics. Draw or describe this work on the 4th finger.

Prompt 5

I heard a lot about the identities that dominate the profession. All of you shared that physiotherapy has a way to go and expressed a desire to spark change. On the 5th finger, please draw or describe actions that you are planning to take to push the field of physiotherapy to evolve.

Prompt 6

Now I want you to review what you have drawn or depicted on your 5 fingers. On your palm, please describe some emotions or reactions to these things. How do they make you feel?

Participants narrated their representation of the hands within the focus group, prompting further discussion. At the end of the focus group, the interviewer asked for feedback on the hand-mapping method. After, the participants sent the completed hand-maps electronically to L. Harvey as joint photographic experts group (jpeg) images, portable document format (PDF) or portable network graphics (PNG) files.

Sampling and recruitment

Eleven (11) current physiotherapy students enrolled in an English-speaking Canadian entry-to-practice physiotherapy program who self-identified with more than one marginalized identity were recruited to start the larger study. Purposive recruitment strategies included requesting entry-to-practice physiotherapy programs distribute a physical and virtual recruitment poster to their students, through posting the study in the Canadian Physiotherapy Association's newsletter, and snowball sampling. One student did not complete the full study; therefore, a total of ten (10) physiotherapy students completed audiodiaries and participated in one of four (4) distinct focus groups with the same interviewer (L. Harvey).

Participant characteristics

Table 3: *Participant characteristics*

Pseudonym	Focus Group	Self-declared identities
Elizabeth	1	A neurodivergent white woman with chronic illness and mental health diagnoses
Tina	1	A Catholic woman of colour
Mariam	1	A Muslim woman of colour
Darra	1	A Muslim woman of colour
Isabella	2	A Catholic woman of colour and an immigrant to Canada

Zainab	2	A Muslim woman of colour
Kaylie	3	A white woman with chronic illness and mental health diagnoses
Jade	3	A Catholic woman of colour and an immigrant to Canada
Claire	4	A white woman with mental health diagnoses
Elena	4	A woman of colour from a low socioeconomic background

The project was approved by the Health Research Ethics Board at the University of Manitoba (H2022:307).

Analysis

Since hand-mapping was used as an elicitation technique within the focus groups, the maps themselves were not analyzed (Cristancho & Helmich, 2019). Instead, our analysis addresses the focus group transcripts featuring discussion of the hand maps. This approach is consistent with the ‘auteur theory’ – where the participant is the author of the visual image (Rose, 2001) and their own interpretation of the drawing is treated as authoritative (Coen, 2021). We followed the transcription conventions as described in Bailey (2008).

Analytically, we considered both focus group content connected to the hand-mapping (the instances where the map was explicitly mentioned), as well as the

participants' interactions (focusing analytically on the sequences of discussion of the hand maps, which was most of the dialogue). The instances were analyzed using a summative content approach. First, we identified the content in the transcripts where participants spoke directly to the process of constructing the hand-maps and then including a latent content analysis where the "focus is on discovering underlying meanings of the words or the context" (Hsieh & Shannon, 2005, p. 1284). We analyzed sequences by identifying where the prompts for the hand map generated sensitive moments, focusing on how the individuals engaged with each other.

Findings

Instances – Hand-maps as symbolically powerful

In instances discussing the hand-mapping itself, participants shared that the method was symbolically powerful. This manifested in several ways. The representation of hands symbolizes the profession of physiotherapy (helping hands) and their experiences in physiotherapy education, while the act of constructing the hand maps involves writing themselves into a profession where they often do not feel recognized.

I'm not an artist, but I thought about it. I was like, OK, give it a shot. Try to see what comes with it. And I think that's what PT [physiotherapy] school to me sometimes was; when things were hard or it was like, you know, jump out of my comfort zone. I was like, well, I can sit and say, 'oh, I can't do it' and 'it's so hard, this is so new' or I can give it a try and more often than not it, it was really a good outcome and I'm pretty happy with my artistic things that I can work with. (Darra, focus group 1)

Within the larger project, the participants described how they often felt out of place in the profession (Chapter Four). For some, the act of writing on the hand map felt symbolic of inserting themselves into this profession that often seemed exclusionary. Jade linked the symbolic hand represented in the map with becoming a unique contributor to the profession:

I think that it's like, the hand is a really great symbol of what we do in physio, but also of it being a part of us. Even as you take away, you know, all the professional stuff. So, I think it really brings home that message of you know, you're not just here to be a physio, you're also bringing in different parts of you, different parts of your hand into (sic) the table, which actually makes you, or enhances you, enhances you to be a unique physio, or, or a physio that's you know, not, is different for each one. Or for everyone. (Jade, focus group 3).

Sequences – in-depth exploration and affirming dialogue

Using the hand-maps within the final data collection point in our study seemed to create a distinctly positive experience for participants in the focus groups. Looking at

sequences, there were many sensitive moments the group created and navigated. In our analysis of group interaction among multiple speakers, we highlight their navigation of sensitive moments, with and without facilitator support.

Almost exclusively, the participants in our focus groups reacted to the prompts through what Kitzinger and Farquhar (1999) described as an “in-depth exploration of sensitive moments” where the groups “held or developed difficult moments” (p. 14). Kitzinger and Farquhar (1999) state that this in-depth exploration can steer participants to speak about thoughts that were previously withheld, to shift their views, or to present their experiences from a fresh perspective. In opening Focus Group 1, after the prompts and the creation of the hand-map, Mariam shares first, lifting her hand-map image to the screen to show all participants. Then, an interaction invited by the facilitator between participants follows that demonstrates how the opinions of another participant (Darra) shifted:

Mariam: So, I can show you guys I’m not very artistic as you can tell. I mostly stuck to words cause I’m not good at drawing (showing image on screen)¹². So, I think that one thing that kind of, stood out to me as I was doing this was how much responsibility I have going into the profession. [Facilitator: Yeah]¹³ So, I feel like, now with school ending and these days where you can kind of, just wake up when you want and do nothing and not worry about midterms. That felt like a sense of, and, and, also thinking about the fact that you’re gonna be, like, financially independent soon. It felt like a sense of responsibility was gone, like it’s like, this new life starting

¹² (Round brackets] contain body conduct

¹³ [overlapping talk begins;] overlapping talk ends (Bailey, 2008)

where you don't have to worry about things. Just gonna go to work. Come home. But as I was doing this activity and just thinking about the different things I have to do to enhance my safety, or the things I did in the program to not become super invisible or to become heard, I feel like as I transition into the profession, I might have to work on some of those things and continue some of those things even at the workplace. So, I think something that just really stood out was how much responsibility I have going into the profession, especially being so visibly of a different like, culture, religion, but also the second point that I wrote under was that it kind of makes me feel a bit exhausted already [Facilitator: Mmm], cause I'm like, going to work is already exhausting. And then having to consistently, kind of, advocate for these changes can be exhausting too. So yeah, that's something that kind of stood out.

Facilitator: Thanks, Mariam, for sharing that one and for being the first one to share. Uh, so I'm gonna go in the order that I have here, which is Darra. And is there, you know, reactions that you have to what Mariam talked about or comments or questions?

Darra: Yeah, I found what you said, like the reflection you said, very, umm, like close, or like close to my heart, but I looked at this from the flip side, so it was interesting hearing it because what I thought was I, I felt proud that if, if I went through the PT [physiotherapy]¹⁴ program, and I remember I was just thinking about how two years ago I was also on a vacation and I remembered going into the profession not

¹⁴ [] indicates notes, comments

knowing what's gonna be in (sic) for me and the responsibility that I would have. But, but now that I'm out of it, I felt proud and OK, I did this, and I can do it forward (sic). And I looked at this from the opposite point of view to do what you were saying, but then your, your reflection was more of like, a reality check. (exchange from Focus Group 1)

In this sequence, Miriam shares the hand map and opens the dialogue speaking about the responsibility she feels going into the profession. The facilitator invites not just another speaker to take the floor, but to respond to Mariam's comment. Darra takes up this invitation by framing Mariam's contribution as "very close to my heart" before sharing how her first experience differs. Darra then affirms Mariam's by stating that Mariam's comments acted as a "reality check" for her. Affirming responses to sensitive moments were repeated in our focus groups.

Another affirmation is from Focus Group 2, when Isabella spoke about her response to prompt #2 (*Conversely, all of you spoke about times in the program when you felt hyper-visible because of your identities. On the index finger, please describe techniques or strategies you use to make yourself fade into the background.*)

Isabella: Um, and sorry, just to remind myself the prompt was like, how do you make yourself invisible or like, faded into the background or something?

Facilitator: Right. Yeah, I think so. I'm checking my prompts. Yes.

Isabella: This is something that I didn't really think of much 'til now, but even going through physio school, going through our labs where we had to like, alternate, um,

being [a patient]¹⁵model and being [an] instructor. I remember, like, being completely fine with being an instructor, but when it came to being a model for some reason, I would try to avoid it, right? I kind of, like, would fear the time when I had to be a model and I had to be observed for some odd reason. I - I, like, think it was probably just like, insecurity. I - I don't know why I felt that way, but I think the thought of, for me at least, I - I felt very self-conscious about how I, I guess, presented compared to my peers. And yeah, that's, that's something I just realized now, but also like, going through school, I, I think to make myself fade more into the background is I'd really stick to just being observational and like, submissive. When it came to like, sharing ideas. And I would mostly agree like, 'ohh yeah, that's a great idea' and I would kind of be afraid to like, pitch something new or, um, out of fear of judgment, I guess. And I wish I wasn't like that cause we're all just learning together and, um, yeah, I don't know if that really answered the prompt, but that's kind of what came to mind for me.

Facilitator: Yeah, I think that's, that's really interesting. Like, I think there's a few things going on there about like, not wanting to, maybe we, we all we talked about bodies that were valued in physiotherapy and feeling like you weren't necessarily that body brought that insecurity and, and then about, ah that's a common response is that some people will just, yeah, turn on the, 'I'm just gonna observe.

¹⁵ [] indicates notes or comments (Bailey, 2008)

I'm not gonna say anything', and that's a really common way of sort of, umm, of coping and just trying to fit in. Basically yeah. Um, Zainab, any reactions to that?

Zainab: I, interestingly, I didn't think about this prompt that way, but now that you say that like, I completely understand and like, relate to the fear of judgment and everyone's eyes being on you for a bunch of different reasons. Whether that's, you know, we look different than someone else or like, we just feel self-conscious.

Creating and sharing about her hand-map enabled Isabella to share her insecurities in the educational program. The facilitator responds substantively to Isabella, before prompting Zainab to join the conversation. Zainab responds by seeing her experience in a new light, "...now that you say that like, I completely understand". Additionally, she says, supportively, "I completely understand and like, relate" without sharing Isabella's experience.

These experiences of deeper exploration and affirmation happened in all the focus groups, with new participants and the same facilitator and the same 'group agreement' at the outset. In Focus Group 3, Kailey responds to prompt #4 (*All of you spoke about doing extra work to enhance your safety and experience relating to your identities, including internet searching, or speaking to professors, in preparation for either fieldwork/clinical placements or academics. Draw or describe this work on the 4th finger*) by saying that she would seek female instructors to help correct techniques, even if there were more male instructors, as she could relate more to the female instructors.

Kailey: I know it is technically extra work, but I think I just started putting it as part of my routine of being in class.

Facilitator: Yes, right. Jade, any thoughts on that?

Jade: Yeah, I also did not write that down, but, but, now that you talked about it, I think that I definitely did the same. In terms of like, body size and body frame as a female, as a petite female, I would seek out advice from, from pros about body or from female pros about body mechanics and how to, you know, do it from our perspective. That's, you know, that's easier and more helpful for us while achieving the same thing as other physios or other students in the class. So, yeah, that's something I also did without realizing. And even now, I haven't even thought about that, but yeah, I think that's something that I also did.

Here, Jade describes how she is seeing her own experiences in a new light, affirming Kailey's experiences while deepening knowledge of her own "...I haven't even thought about that, but yeah, I think that's something that I also did."

Later in focus group 1, the affirming responses in sensitive moments continued, but the facilitation was not done by the facilitator, but rather one of the participants. The group, following the norms that were enacted up to that point, begins to essentially self-facilitate. Elizabeth shares about how her experiences with her invisible disabilities may differ from someone else's visible identities. The group discussion moves on, and another participant (Tina) shares her own reaction to the same prompt. Soon after, Mariam re-centres the discussion to Elizabeth's earlier comment, probing for a more in-depth response from Elizabeth, who was also a physiotherapy classmate of Mariam's:

Mariam: So, Elizabeth, I feel like, so, like, a very important concept you mentioned is like, the kind of like, being an invisible minority or an invisible identity. So, and I feel like now that I think about it, like, I've studied with you for two years, but I've never even had the chance to like, delve into, like, you know, more about your identity in that sense. So, I guess my question for you is, like, how are you forgiving on a daily basis? Because, I think in a sense, being a visible minority is almost easier then, because people will always, people might have stereotypes or like, preconceived notions about you. But they also know that their boundaries might be different, I might need to treat them differently, but like, how do you remain forgiving of things like that on a daily basis? Or how do you think that you're going to do this when you go into the workplace.

Elizabeth: Yeah, that's a cool consideration of, you know, obviously I think there would be pros and cons of the visible versus not visible [...]

Elizabeth continues to respond to the question directly to Mariam, and a short sequence ensues between them without any facilitator input. Mariam ends with, "Thanks for sharing that", which is a response used earlier in the discussion by the facilitator. The same comfort with engaging directly with each other, without facilitator input, was noted in the later stages of all the focus groups.

Non-affirming dialogue was very rare. When it appeared, the new speaker presented a differing view on the prompt but avoiding contradicting or challenging someone else's

experience or interpretation. Here, we share three different instances of how non-affirming responses to other participants were phrased:

So, when you first said education, but before you started talking about how it was us educating the patients, I actually had a different take on it. I guess my initial thought was basically my education.” (Elizabeth, Focus Group 1, responding to how educating people about identities is important and exhausting).

Yeah, I actually didn’t think of that. But I think, yeah, that’s something that I also, I guess, would keep in mind moving forward. (Jade, Focus Group 3, responding to a participant saying they’d like to make their practice a safe space for clients’ identities).

Oh, yeah, my initials thoughts are, I actually, kind of, approached it almost the opposite way. (Elena, Focus Group 4, responding to a participant saying it was overwhelming to think of making a big change to the profession).

Discussion

Focus groups can be opportunities for participants to “provide mutual support in expressing feelings that are common to their group” (Kitzinger, 1995, p. 2), though this is not assured. We wanted to maximize this potential, when relevant, by adding a complementary method. In our study, hand-mapping prior to a facilitated discussion created a supportive group interaction while talking about personal topics, which is consistent with research on body-mapping as a method affirming group participants’ experiences (Murray et al., 2023). Hand maps present the possibility for powerful symbolism for health professions to create

meaningful personal reflection to share in a group (instances) as well as contribute to a discursive environment that allows for thoughtful, affirming and deeper navigation after sensitive moments arise (sequences).

Body-mapping, the arts-informed method from which hand-mapping derives, has also been shown to be symbolically powerful. In their study of non-binary youth in Ontario, Canada, Furman et al. (2019) note that it is “fitting to choose a method about bodies and embodiment when it comes to challenging gender conformity” (p. 3). Similarly, the use of body-mapping in mental health research found the body to be a “site of strength and resilience despite challenging experiences” (Murray et al., 2023, p. 904). While the body-as-symbol did not feature as a finding for these studies per se, participants commonly resonated with the symbolism evoked through the mapping methods. Hand-mapping mirrors the ancient practice of hand tracing that crosses continents and ages, from Europe to Indonesia and Argentina and from as long ago as the Neanderthal era (Chagi, 2025) which is viewed as “a way of declaring one’s existence in the world” (Pearson et al., 2018, p. 20). This ancient declaration was echoed in the participants’ responses to hand mapping.

Using arts-informed methods can produce an initial hesitation from participants who are worried about their artistic talent (or lack thereof) (Cristancho & Helmich, 2019), something we similarly found in our study. Cristancho and Helmich (2019) engaged health professional students with rich pictures, inviting participants to recall a memorable moment and draw everything that they see as important in that moment. In their instructions, the authors “share an example with them [participants] to reiterate that the content of their drawing is what’s important – not their artistic abilities” (Cristancho &

Helmich, 2019, p. 920). Despite this hesitation, described by Cristancho and Helmich (2019) and in our study, participants still engaged meaningfully with the arts-informed methods.

We found the hand-map provided a valuable tool that enabled the focus group to include time to reflect, where participants felt validated, and could engage in a deep exploration of their experiences. A recent scoping review on body-mapping in mental health shows a similar finding, in that the method “fostered an exploration of participants’ strengths and resilience despite their challenging experiences” (Murray et al., 2023, p. 903).

Body-mapping as a method is described as resource-intensive (Furman et al., 2019; Murray et al., 2023). Our project demonstrates how a variation of body-mapping, hand-mapping, can also support reflection in symbolically powerful ways, and allow for in-depth exploration of sensitive moments, without the same demands on participants or researchers. The average time spent in our focus groups involving the hand-mapping was 88 minutes. Most of the research with body-mapping involves one or multiple in-person workshops that last many hours. For example, Furman et al. (2019) describe three sessions lasting approximately six hours each, and Skop (2016) held five or six sessions of two hours each. In addition to hand-mapping reducing time spent in the workshops, the method also can work virtually, crossing geographical boundaries that would otherwise limit participation. While an hour and a half focus group with hand-mapping cannot elicit the same depth as the most intensive body-mapping processes, the use of two additional data collection processes (an interview and writing reflective diaries) produced a rich foundation for the larger study.

Limitations

As described, the focus groups were preceded by one-on-one interviews and participants' reflective diaries. Each of these events helped build rapport between the facilitator and the participants individually and set the tone for an affirming environment. Additionally, there was the 'group agreement' created by the facilitator and shared with participants at the start of the focus group; this and the facilitator's explicit invitations to respond to each other's comments shaped dialogue. Further studies testing the method can help explore what differences arise without the supportive work that preceded the hand-mapping or occurred during the group dialogue in our study.

The virtual focus group method alone may also encourage participants to share more than they would in a traditional face-to-face focus group (Tran et al., 2021). Future work could also explore the use of hand-mapping in a face-to-face focus group.

While we had many social identities represented in our group, all the participants for the focus groups were women. It is possible that having a wider gender representation in focus groups could influence the tone and nature of the interactions.

Conclusion

Hand mapping provided a meaningful elicitation tool to support personal reflection during a virtual focus group dialogue with peers. Additionally, the impact hand-mapping had on group dialogue enabled in-depth exploration of sensitive moments. Hand-mapping, like

other forms of body mapping, can be a helpful addition to the qualitative researcher's cache of methods.

References for Chapter Five

- Acocella, I. (2012). The focus groups in social research: Advantages and disadvantages. *Quality & Quantity*, 46(4), 1125–1136. <https://doi.org/10.1007/s11135-011-9600-4>
- Alerby, E., & Alerby, J. E. (2003). The sounds of silence: Some remarks on the value of silence in the process of reflection in relation to teaching and learning. *Reflective Practice*, 4(1), 41–51. <https://doi.org/10.1080/1462394032000053503>
- Bailey, J. (2008). First steps in qualitative data analysis: Transcribing. In *Family Practice* (Vol. 25, pp. 127–131).
- Barbour, R. S. (2014). Other sources of qualitative data. In R. S. Barbour (Ed.), *Introducing qualitative research: a student's guide* (2nd edition. ed.). SAGE Publications, Inc.
- Brand, G., Miller, K., Wise, S., Saunders, R., Dugmore, H., & Etherton-Beer, C. (2016). Depth of field: Using photographs and narratives to explore and reflect on ageing. *Reflective Practice*, 17(6), 676–680. <https://doi.org/10.1080/14623943.2016.1206878>
- Chagi, S. (2025, November 3). The echo of a hand across millenia: Decoding the cave hand stencil. *World of Paleoanthropology*. <https://worldofpaleoanthropology.org/2025/07/22/the-echo-of-a-hand-across-millennia-decoding-the-cave-hand-stencil/>
- Coen, S. E. (2021). “Ok, gender! Where are you?!”: On the potential of catalytic validity in feminist geographies of everyday inequities. *Area*, 53(4), 699–707. <https://doi.org/10.1111/area.12744>
- Cristancho, S. M., & Helmich, E. (2019). Rich pictures: A companion method for qualitative research in medical education. *Medical Education*, 53(9), 916–924. <https://doi.org/10.1111/medu.13890>
- de Jager, A., Tewson, A., Ludlow, B., & Boydell, K. M. (2016). Embodied ways of storying the self: A systematic review of body-mapping. *Forum, Qualitative Social Research*, 17(2), 1–31. <https://doi.org/10.17169/fqs-17.2.2526>
- Denicolo, P., Long, T., & Bradley-Cole, K. (2016). *Constructivist approaches and research methods: A practical guide to exploring personal meanings*. SAGE Publications Ltd. <https://doi.org/10.4135/9781526402660>
- Dew, A., & Smith, L. (2025). Using arts-based methods in disability research. *Forum, Qualitative Social Research*, 26(2), 1–22. <https://doi.org/10.17169/fqs-26.2.4354>
- Furman, E., Singh, A. K., Wilson, C., D'Alessandro, F., & Miller, Z. (2019). “A space where people get it”: A methodological reflection of arts-informed community-based participatory research with nonbinary youth. *International Journal of Qualitative Methods*, 18, 1–12. <https://doi.org/10.1177/1609406919858530>
- Government of Canada. (2022). *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2)*. <https://ethics.gc.ca/eng/documents/tcps2-2022-en.pdf>
- Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288. <https://doi.org/10.1177/1049732305276687>

- Kinsella, E. A., & Bidinosti, S. (2016). 'I now have a visual image in my mind and it is something I will never forget': An analysis of an arts-informed approach to health professions ethics education. *Advances in Health Sciences Education: Theory and Practice*, 21(2), 303–322. <https://doi.org/10.1007/s10459-015-9628-7>
- Kitzinger, J. (1994). The methodology of focus groups: The importance of interaction between research participants. *Sociology of Health & Illness*, 16(1), 103–121. <https://doi.org/10.1111/1467-9566.ep11347023>
- Kitzinger, J. (1995). Qualitative research: Introducing focus groups. *British Medical Journal*, 311(7000), 299–302. <https://doi.org/10.1136/bmj.311.7000.299>
- Kitzinger, J., & Farquhar, C. (1999). The analytical potential of 'sensitive moments' in focus group discussions. In R. Barbour & J. Kitzinger (Eds.), *Developing focus group research* (pp. 156–172). SAGE Publications Ltd. <https://doi.org/10.4135/9781849208857.n11>
- Knowles, J. G., & Cole, A. L. (2008). Arts-informed research. In *The SAGE encyclopedia of qualitative research methods*. SAGE Publications. <https://doi.org/10.4135/9781412963909.n18>
- Leavy, P. (2020). *Method meets art: Arts-based research practice* (Third edition. ed.). The Guilford Press.
- Liamputtong, P. (2011). The use of focus group methodology in the health and social sciences. In *Focus group methodology: Principles and practice* (pp. 87). SAGE Publications Ltd. <https://doi.org/10.4135/9781473957657.n6>
- McCorquodale, L., & Deluca, S. (2020). You want me to draw what? Body mapping in qualitative research as canadian socio-political commentary. *Forum, Qualitative Social Research*, 21(2). <https://doi.org/10.17169/fqs-21.2.3242>
- Moniz, T., Golafshani, M., Gaspar, C. M., Adams, N. E., Haidet, P., Sukhera, J., Volpe, R. L., de Boer, C., & Lingard, L. (2021). How are the arts and humanities used in medical education? Results of a scoping review. *Academic Medicine*, 96(8), 1213–1222. <https://doi.org/10.1097/ACM.0000000000004118>
- Murray, A., Steffen, M., Keiller, E., Turri, M. G., & Lau, J. Y. F. (2023). Body mapping for arts-based inquiry in mental health research: A scoping review. *The Lancet Psychiatry*, 10(11), 896–908. [https://doi.org/10.1016/S2215-0366\(23\)00224-9](https://doi.org/10.1016/S2215-0366(23)00224-9)
- Nolan, H. A. (2025). Lessons on applying a trauma-informed research approach in health professions education scholarship. *Medical Education*, 59(12), 1341–1352. <https://doi.org/10.1111/medu.15745>
- Pain, H. (2012). A literature review to evaluate the choice and use of visual methods. *International Journal of Qualitative Methods*, 11(4), 303–319. <https://doi.org/10.1177/160940691201100401>
- Pearson, K. R., Backman, M., Grenni, S., Moriggi, A., Pistors, S., & Vrieze de, A. (2018). *Arts-based methods for transformative engagement: A toolkit*. SUSPLACE. <https://doi.org/10.18174/441523>
- Rose, G. (2001). *Visual methodologies : An introduction to the interpretation of visual materials*. SAGE.
- Schamroth, A., Berman, H., & Spencer, N. (2025). Use of body-mapping (an art therapy methodology) to enhance medical student history taking skills and the students'

- response. *Journal of Education and Development*, 9(2), 60–66.
<https://doi.org/10.20849/jed.v9i2.1505>
- Silverman, D. (2017). Instances or sequences? In *A very short, fairly interesting and reasonably cheap book about qualitative research* (Second edition. ed., pp. 56–85). SAGE. <https://doi.org/10.4135/9781526402264.n3>
- Skop, M. (2016). The art of body mapping: A methodological guide for social work researchers. *Aotearoa New Zealand Social Work*, 28(4), 29–43.
<https://doi.org/10.3316/informit.588688538157167>
- Slater, C. E., Wong, L. Y., & Newman, R. (2025). Arts-based approaches in interprofessional education: A scoping review. *Journal of Interprofessional Education & Practice*, 40, 1–12. <https://doi.org/10.1016/j.xjep.2025.100757>
- Tracy, S. J. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative Inquiry*, 16(10), 837–851.
<https://doi.org/10.1177/1077800410383121>
- Tran, B., Rafinejad-Farahani, B., Moodie, S., O’Hagan, R., & Glista, D. (2021). A scoping review of virtual focus group methods used in rehabilitation sciences. *International Journal of Qualitative Methods*, 20, 1–18.
<https://doi.org/10.1177/16094069211042227>
- Trout, I. Y. (2025). Using arts-based methods for (self)-reflection in an action research process. *International Review of Qualitative Research*, 0(0), 1–20.
<https://doi.org/10.1177/19408447251387993>
- Varpio, L., Grassau, P., & Hall, P. (2017). Looking and listening for learning in arts- and humanities-based creations. *Medical Education*, 51(2), 136–145.
<https://doi.org/10.1111/medu.13125>
- Varpio, L., & McCarthy, A. (2018). How a needs assessment study taught us a lesson about the ethics of educational research. *Perspectives on Medical Education*, 7(Suppl 1), 34–36. <https://doi.org/10.1007/s40037-017-0356-y>
- Watson, M., & Barton, G. (2020). Using arts-based methods and reflection to support postgraduate international students' wellbeing and employability through challenging times. *Journal of International Students*, 10(2), 101–118.
<https://doi.org/10.32674/jis.v10iS2.2849>

Chapter Six: Conclusion

The story continues

I will start the end at the beginning. I return to the outset of my PhD journey (and indeed this thesis), when a real group of students, some white and others of minoritized backgrounds, came to me, flagging some difficulties they were experiencing. Thinking through their experiences and my thesis findings, I conclude with re-imagining the critical persona that I created in the introduction, the non-white woman who is reserved, not particularly sporty and has a chronic health issue. I imagined her considering physiotherapy as a career when she is in high school or in her undergraduate degree. She is exposed to the profession through some part of her past – her own journey through an injury, or maybe a relative who experienced physiotherapy through an illness. She begins to imagine herself enjoying this career. She turns to look online to find out more: will she see people like her in physiotherapy? Her life becomes almost singularly focused. ‘Get good grades, save money’ are mantras she recites to herself. She applies to a physiotherapy program, and to her surprise and joy, she is accepted. How does she start to feel like a physiotherapist (PT)? At the conclusion of my thesis, I feel like I can add detail to this story, enhancing contrast, increasing the sharpness and decreasing the noise.

As she was searching for more information about physiotherapy as a career, she came across many websites. Most of the websites she explored almost always featured PTs who are white or white-passing and working in private physiotherapy clinics. While the profession appears to dedicate itself to assisting those with persistent or transient physical

disabilities, the PT is never pictured with a disability on the websites. Additionally, 'invisible' disabilities are never mentioned. The PTs she sees embody this sense of infallibility – they appear invulnerable to illness, to disability, and to socioeconomic difficulties. While she was attracted to the profession through exposure with a family member in acute care, the 'good' PT as depicted in these websites contradicts her understanding. The 'good' PT on the websites is one who is entrepreneurial within capitalism, selling services to those who can afford them in private practice clinics. None of these represent who she is or how she envisions practicing PT.

Nevertheless, she applies and is accepted into a physiotherapy professional education program in Canada. As she speaks to her classmates, she realizes that compared to them, she doesn't feel like a PT yet; her PID takes a bit longer when compared to others who fit into this narrative, those who are comfortable and feel like a 'fish in water'. She realizes that she cannot rely on her usual and habitual ways of balancing her schoolwork and managing her illness that she learned through her previous education, experiences, and upbringing. The field that she has entered, specifically physiotherapy education, does not align with what we call her habitus. So, she experiences hysteresis, where her preexisting dispositions and the field of physiotherapy do not match, and she wonders if she has made the right career decision. When her health condition worsens, she struggles to keep up, causing both her grades to suffer and her condition to take additional time to settle. She is very selective as to which faculty members she chooses to disclose her health information. She begins to understand that the field values a constant and uninterrupted focus on physiotherapy education, something that she cannot do. She

notices other students also struggling with the pace. A friend of hers who lives on her own and works two part-time jobs to stay afloat confides that she may have to drop out due to financial barriers. In a class discussion, a Muslim classmate speaks about how difficult it is to pray during the day as they are used to doing, and the ignorance among peers and instructors of why they do not participate in daytime social events featuring meals during Ramadan. Those who easily succeed in the field do not have life demands that pull focus from physiotherapy education – they have ideal mental and physical health, have financial security, and do not have other demands such as religious practices that require their attention during program times.

She notices those who thrive as physiotherapy students. They are confident and more relaxed while managing the demands of the program. They are her classmates who do not have demands on them outside of finishing physiotherapy, which gives them the capacity for constant focus and increases their status in this field. They tend to be the ones who answer the most questions in class, who organize and attend every social event, who join the class intra-mural sports teams, and who seem to get the most attention from the instructors. She faces and witnesses incidents of symbolic violence, where those with power use it to dominate those without – including herself. A white classmate teases her for her ‘ethnic’ lunch, an instructor condescendingly tells her to not perform this skill ‘like a girl’. These types of comments weigh her down. Sometimes, she tries to fade into the shadows to try to avoid any attention.

Through her participation in a research study, she connects with students who notice similar issues in their PT education. After talking with the researcher in an interview,

and keeping diaries for a few months, she talks with other students with similar experiences of physiotherapy in a group. Within this dialogue, she begins to envision a future field of physiotherapy that values her, where patients appreciate her as a PT and a person and she finds her place in the physiotherapy community. She sees herself relating to her future patients who have identities like her own or share the common experience of being 'othered'. She imagines being a role model to future students and contributing to her own ethnocultural community. She believes that she will contribute to a more just physiotherapy education field in time, though isn't yet clear how. Her way of establishing herself in the profession is not to change herself, but rather to change the field. The focus group at the end of the study introduces her to the method of hand-mapping for the first time. She enjoys the symbolic link to the profession in this method. Her experience is that this method and the facilitated conversation provide a supportive group interaction in a virtual space, connecting with students with similar identities across Canada, while talking about personal topics. She leaves the study thinking about how she can find her place and help transform physiotherapy.

Reflecting on my positionality within physiotherapy

I've reflected a lot about how I see this narrative as ending positively, despite the real and substantive challenges identified. This reflection leads me to revisit my positionality. I had a relatively easy career path in physiotherapy. I was not particularly sporty, but I am a white, hetero, cisgendered, able-bodied, highly educated woman from a middle to higher socioeconomic background. All of this contributed to my habitus and my

strong sense of self. My career took me to places I did not and could not have expected (literally, as in around the world and figuratively, into different physiotherapy practice spaces). I've had, and continue to have a long career in physiotherapy. As an educator, I believe it is part of my responsibility to mentor a love for the profession. All of these considerations guide me in my research as well.

I recognize a need for our profession to evolve and grow. I believe that if, as educators, we continue to simply replicate the status quo, that this growth will not happen. This commitment to change is what inspired me to do this research. I want to support those students who do not have the same background, the same identities, and the same privileges that I have to contribute to making our profession better. All this has the potential to lead me to see the positive in my own research.

Aims of this thesis

The purpose of my thesis was to investigate the development of professional identity for students with marginalized identities within physiotherapy education: how public representative practices and lived experiences before and during physiotherapy education may influence this. Relatedly, and taking a reflexive stance towards my research, I aimed to explore the impact of my methodological choice of employing an arts-informed method on the focus groups discussions. This led me to investigate chronologically a journey of a student – from the potential of envisioning themselves joining the profession, to their actual experiences once they enter a professional preparation program, while they participate in physiotherapy educational research. Through this research, I developed a

better understanding of how professional websites portray physiotherapy. From my discussion with these students, some of their experiences in the educational program reinforced findings from other research. I was also able to shed new insights into the field of physiotherapy education. I conceptualized how these students navigate some of the dominance/oppression that they face in the field of physiotherapy education. I also explored an arts-informed method in the research that contributed to a supportive group interaction while discussing personal and potentially difficult topics. In critical theory, “transformations occur when ignorance and misapprehensions give way to more informed insights” (Guba & Lincoln, 1994, p. 113). Ultimately, I am optimistic that sharing this analysis will help to inform leaders in physiotherapy including our professional associations, physiotherapy educators, and researchers of health professional education.

I am hopeful that the sincerity of this work is well demonstrated through my reflexivity and transparency. The purposeful design of the research using multiple methods, engaging in self-reflexivity on my own which was deepened by consulting my critical friends, and engaging in analytic dialogues with multiple contributing authors has, I trust, meaningfully supported the credibility of the research.

Summary of key findings

The purpose of the first paper, “Right Profession?”, was to explore contemporary representations of a ‘good’ PT in Canadian public-facing physiotherapy websites, using a critical discourse methodology to interpret meanings. The key finding is that these websites do not yet represent their organizations’ stated dedication to a focus on justice, equity,

diversity, inclusion and anti-oppression. This is evident from both who is made visible and who is rendered invisible, through words, images, and navigation within the websites. Two new discourses about the profession were developed through the analysis: the perceived invulnerability of PTs and the neoliberal and capitalist nature of physiotherapy. If Canadian physiotherapy websites are an indication, the ‘good’ PT (or by proxy, applicant to physiotherapy education) may be one who similarly embodies this invulnerability and has an entrepreneurial, capitalist spirit. If we, as a profession, continue to display narrow representational practices, caught up in discourses of invulnerability and the neoliberal and capitalist nature of physiotherapy, in addition to white supremacy, hetero/cissexism, and the superiority of private practice physiotherapy as already highlighted by other scholars, then the profession risks stagnation and is hypocritical of its stated commitment to equity, diversity, and inclusion.

The purpose of the second paper, “Becoming Good”, was to explore the experiences of physiotherapy students with multiple marginalized social identities as they develop their professional identity within a profession that has been and continues to be unwelcoming to under-represented groups. Using Pierre Bourdieu’s Theory of Practice and the theoretical extension of intersectionality, I performed eleven (11) one-on-one interviews, then collected audiodiaries and conducted focus groups using hand-mapping with ten (10) students from across Canada. I found that students with multiple marginalized identities form their professional identity while experiencing hysteresis and navigating a lack of valued capital in the field. I argue that a ‘good’ physiotherapy student is someone who can dedicate significant uninterrupted time to physiotherapy education. Inequities are

reinforced and preserved in the field of physiotherapy education through symbolic violence. The students expressed hope that their professional identity will be recognized as belonging through imagining the subfield of future physiotherapy that values different forms of capital.

The purpose of the paper, “The Helping Hand”, was to explore how the method of hand-mapping influenced the content of the discussion and group interactions within the focus groups of physiotherapy students with multiple marginalized identities. Critical research understands co-creation of data, and I analyzed the impacts of a lesser-used method in health professions education. Hand-mapping involves the facilitator guiding participants to trace their hand, then to respond intuitively (McCorquodale & Deluca, 2020) to prompts to fill the hand with words, pictures or designs. The prompts in our research reflected early analytic insights from the interviews and diaries which preceded the focus groups. I included in my analysis both focus group content connected to the hand-mapping, or the instances where it is mentioned, as well as the participants’ interactions, or the sequences of discussion generated following sensitive moments.

I found that the instances surrounding the hand-mapping were symbolically powerful for participants. The symbolism was evidenced through the metaphor of the ‘helping hands’ of the profession, how the method felt unusual and uncomfortable for them, much like their experiences in physiotherapy education, and how the map felt symbolic of inserting themselves into a profession that often felt insular. This method also contributed to a discursive environment that allowed for thoughtful, affirming and deeper navigation after sensitive moments arose. In this manuscript, hand-mapping prior to a

facilitated discussion was part of a supportive group interaction while talking about personal topics. The facilitation that I provided enabled the kind of dialogue that developed, where the participants responded to each other before offering their own perspectives. The findings support the use of hand-mapping within the context of a virtual focus group as a method encouraging participant reflection in symbolically powerful ways without the research-intensive demands of similar methods, and without geographical barriers.

Returning to Jenkins' definition of identity as a "multi-dimension classification or mapping of the human world and our place in it, as individuals and as members of collectives" (2014, p.5), I am reflecting on how these students from multiple marginalized groups classify the world of physiotherapy and their place within it. As current and future members of the profession, potential students, current students and physiotherapists with years of practice are undoubtedly viewing public-facing professional websites. Consequently, they are being influenced by the taken-for-granted hierarchical conventions that lead to the power imbalances (Kivunja & Kuyini, 2017) present in those websites. As PID is a continual, iterative process (Goldie, 2012), intervening in representational aspects of the profession has the potential to positively influence the professional identity of those physiotherapists with marginalized social identities. The path to classifying themselves as belonging to a group becomes clearer when others with similar social identities, similar ideological approaches to the profession (altruistic versus capitalist), and similar career aspirations (public versus private practice) are represented. Similarly, changing

representational aspects of the profession can unsettle the narrative about forms of valued capital.

Establishing their social identity as a member of the physiotherapy profession and their place therewithin can similarly be strained or difficult as students from underrepresented groups experience a lack of valued capital, hysteresis and symbolic violence in the education program. Actualizing a profession that embraces the values of equity, diversity, anti-oppression and social justice, means changing the educational conditions which restrict the PID of those students with marginalized identities.

Contributions to the literature

Professional identity development

The findings from “Becoming Good”, using Bourdieu’s Theory of Practice as a theoretical framework, explore some of the forces dominating the process of PID in the field of physiotherapy education. Identifying the implicit valuation of a constant and complete focus on physiotherapy studies should help educators reflect on how this rigid condition of educational participation contributes to the PID of students with marginalized identities. I identified that students with marginalized identities develop their professional identity while experiencing hysteresis and a lack of valued capital in the field. These problems in PID are located not with the student, but in physiotherapy educational practices. Understanding the environment, or the field, where students with marginalized identities perceive that their habitus does not match, and they do not have valued capital, provides some additional insight to the “tailored support” (Lewis et al., 2025, p. 32) that

these students may need to conceptualize their professional identity in the short term, before structural field changes. The personalized support necessary for students with marginalized identities could focus on more mental and physical health supports, a reduction of financial stressors whenever and however possible, and cultural and religious sensitivity training for physiotherapy educators and all students. Structural changes must also increase accessibility to the educational program, like an option to study on a part-time basis, for physiotherapy to realize its stated commitments to justice, equity, and inclusion.

Physiotherapy students who learn techniques for self-care and reflection as part of their PID may avoid burnout and maintain longevity in the profession (Wagner & Jackson, 2021). However, recognizing and changing the structural inadequacies that lead to burnout is the real goal. The prevention of harm is also valuable. Arts-informed methods, broadly speaking, enhance personal meaning-making and foster engagement with under-represented groups in research (Furman et al., 2019). I propose that this approach can be expanded to enhance meaning-making within educational programs. Hand-mapping, one option of many arts-informed methods, can be a valuable tool for self-reflection. The context for the paper, “The Helping Hand” is for engaging in qualitative research, however, arts-informed methods can be expanded for use in physiotherapy education more broadly to support reflection, including about PID.

Transformative research

My PhD contributes to the field of transformative anti-oppressive research in physiotherapy. Broadly, this thesis responds to the calls for my profession and our educational programs to enact their stated dedication to a focus on justice, equity, diversity, inclusion, and anti-oppression. Focusing on social justice within physiotherapy, Dhir et al. (2022) state, “Canadian PT [physiotherapy] programmes need to integrate health justice tenets in their educational structures and systems to support learners, faculty, staff and affiliated health care workers” (p. 228). My PhD research contributes specifically to the systems to support learners and faculty.

Selecting a research topic that has the ability to enable meaningful change is key to engaging in transformative research (Rodney et al., 2024). My commitment to supporting meaningful change is central to all three research papers presented in this thesis. In “Right Profession?”, I contribute to the understanding of how forms of bias are enacted through representation of discourses of invulnerability, of the neoliberal and capitalist nature of the profession, of white supremacy, hetero/cissexism and the dominance of private practice physiotherapy. Through the research in “Becoming Good”, I highlight needed disruptions in physiotherapy education, ensuring that students with multiple marginalized identities can develop their professional identity without experiencing symbolic violence or other forms of exclusion. Additionally, highlighting the particular forms of capital valued in the field of physiotherapy education, and the consequent constant and complete focus that is required, may encourage physiotherapy education programs to make structural changes in their full-time status requirements, among others.

Massaquoi and Taiwo-Hanna (2025) state that the sharing of the lived experiences of Black communities by researchers can be an “often-painstaking exploration and analysis of those [individual] experiences as a source of knowledge and insight” (p. 78). My work in the “Helping Hand”, combining the arts-informed method of hand-mapping with the facilitated focus group discussion, provides an accessible way to provide a care-full and conscientious exploration and analysis of students’ lived experiences.

Inspired by the work by Massaquoi and Taiwo-Hanna (2025) for social work in Canada, I hope my PhD research has helped to highlight and foster excellence in collecting, analyzing and presenting students’ lived experiences to assist other students with similar identities, while ultimately furthering the progress towards anti-oppressive education. In “Becoming Good”, I offer practical applications through the consideration of serious investments in financial awards (not loans), ensuring that they recognize students with competing demands. Another could be deprioritizing the field conditions that expect constant and complete academic focus by allowing for part-time studies. I challenge those with influence over the content in physiotherapy websites to question if their representation accurately conveys the current profession and the future potential of the profession, and to change them if it does not.

With my years of experience as an instructor in the field of physiotherapy education, I have observed many areas where the institution presents barriers for historically marginalized students, including through policies and processes. Able-ism persists in higher education through demanding and invasive documentation requirements for student accessibility accommodations (Roslin, 2021). In physiotherapy and occupational

therapy in Canada, educators are positioned as those with the authority to grant or deny students into the profession based on normative performance standards (Dhillon et al., 2023). Admissions practices, such as the multiple mini-interview (MMI), commonly used in Canadian physiotherapy programs, uphold the status quo and maintain the homogeneity of and whiteness in the field of physiotherapy education (Otubusen & Thille, 2026). Dress codes, which may be applied to physiotherapy academic and clinical education, are shown to normalize a patriarchal perspective and embed white, middle-class expectations (Aghasaleh, 2018). These are a few examples of the oppressive systemic barriers within physiotherapy education that require further exploration through transformative research to enact meaningful change in the field.

Limitations

My participants did not represent the full range of different social identities that are known to face exclusion, discrimination, and injustice in education more broadly. I chose to keep the inclusion criteria minimal in the hopes of creating a welcoming space for participants of all identities, as they defined them. The result was a group of mostly women, a mix of white and non-white, mixed ethnicities and religions, some from lower socioeconomic backgrounds, and some with chronic mental and/or physical health conditions. This meant that experiences of students who are Indigenous, Black, from the 2SLBTQIA+ community and many other identities are not reflected in this work. While I value tremendously the experiences shared from the participants in my research, I

understand that this work would have benefited greatly from a broader representation of the community.

Research learning from perceptions and experiences of Indigenous (in Canada, First Nations, Inuit, and Métis) PTs and/or physiotherapy students is minimal. Studies in nursing show that Indigenous students in Canada experience a difficult and extended journey in their educational program, including facing racism from non-Indigenous students and educators (Martin & Kipling, 2006). Locally, research in the College of Rehabilitation Sciences at the University of Manitoba found that Indigenous rehabilitation students experienced, observed or were concerned about experiencing stigma due to their admission in the Canadian Indigenous Peoples category (Brown et al., 2024). Additional work regarding Indigenous medical students at the University of Manitoba showed that they experienced or witnessed racism in the classroom and clinical setting in the forms of institutional, personally mediated, and internalized racism (Anderson et al., 2015). These findings cohere with studies in physiotherapy highlighting that it is a white space (Wegrzyn et al., 2021), dominated by colonial epistemologies (Lurch et al., 2023). Engaging in participatory action research, where Indigenous physiotherapy students co-construct a project to create a decolonizing approach for physiotherapy educators to enhance PID, could be an example of the focus of future action-oriented research.

Further research may also explore the PID of physiotherapy students from the two-spirit, lesbian, gay, bisexual, transgender/trans, queer/questioning, intersex, asexual/ace and all other sexual orientations and gender identities (2SLGBTQIA+) community. In their cross-sectional survey of students enrolled in entry-level physiotherapy programs across

Canada, Primeau and colleagues (2023) reported that 54% of the 150 students surveyed believed that their physiotherapy program was 2SLGBTQIA+ inclusive, but the students who self-identified as 2SLGBTQIA+ were less likely to believe that their program was inclusive. The authors suggest that an improvement in 2SLGBTQIA+ education within the physiotherapy training program could help create an environment that is more supportive and inclusive for 2SLGBTQIA+ students (Primeau et al., 2023). Integrating these findings with my research suggests a potentially unwelcome environment for students with 2SLGBTQIA+ to form their PID. However, I believe that increasing 2SLGBTQIA+ education for all physiotherapy students is insufficient for providing the “tailored support” (Lewis et al., 2025, p. 32) that 2SLGBTQIA+ students may need for their PID embedded in a cis/heteronormative majority culture.

Revisiting this study’s participants as they become established in the profession would be a useful additional study, however, I did not include this in the research ethics application. For future work with physiotherapy students, I would recommend adding another interview or focus group three to five years into their career as a PT, as this could reveal how they see their professional identity as they commence and progress in the profession, and how they shape and perceive their sense of belonging in the physiotherapy community. There is value in exploring whether the anticipated valued capital that our students discussed, of relatability to a broader group of patients, did indeed enhance their patient care. If so, future research could explore how they negotiate this process and examine if their anticipated strategies of relating to their patients, being a role model to future students, and contributing to their own ethnocultural community were realized, or

how these goals may have shifted, as we know that PID is relational and contextual (Hammond et al., 2016). Findings from that work could feed back into physiotherapy education.

Future directions

The richness of the potential contributions of Black, First Nations, Métis and Inuit people, as well as anyone identifying as part of the 2SLGBTQIA+ community cannot be understated, and future studies should seek to recruit these individuals specifically. In addition, sampling students with other competing time demands, for example, parents or other caregivers, would also strengthen understanding of hierarchies and barriers to access and participation in physiotherapy education and their reproduction.

Future work could be focused on additional key players who influence the different subfields of physiotherapy education, that is, academic preparation and clinical education. Exploring the experiences of physiotherapy instructors in the academic field who were, at times, the perpetrators of the symbolic violence, for example through a phenomenological or narrative inquiry approach, or through ethnographic observations, may help in identifying the beliefs and practices that underpin their attitudes and behaviours when teaching students with marginalized and dominant identities. Such research may offer insights into actionable emancipatory strategies that mitigate or eliminate harm within physiotherapy education.

Public-facing websites representing the profession need to transform and better represent both the goals of the profession and the changing faces of the profession. Also, a

broader critical examination of other public-facing websites available to prospective students researching their future career path should be completed. This should include websites from post-secondary institutions that teach physiotherapy, and those in the private health sector representing part of the workforce of PTs. Continuing this exploration into the realm of social media can offer more insights into the actualization of the profession's stated claims of social justice, equity, diversity, inclusion, and anti-oppression.

Future studies integrating the arts-informed method of hand-mapping in research could consider further applications and refinement of this approach. Another avenue to explore could be the application of hand-mapping as an educational tool in the physiotherapy program, investigated through the lens of the scholarship of teaching and learning.

The story ends?

Now, what becomes of my fictional character? Even though her path to professional identity has taken more turns than my own, does she eventually feel like her contributions matter in the profession? Does my research have the potential to make the journey a bit easier for these students?

I'm choosing optimism. I hope she has a long career that allows her to succeed and to see our profession evolve. I hope that the physiotherapy websites will change to include a broader representation of our profession. I hope that naming the capital that we value in our education programs makes the implicit more explicit, thereby allowing for growth and

valuing of other forms of capital than those valued at present, which reproduce status for whiteness, masculinity and athleticism. I am hopeful that engaging in methods of research that allow for space to speak about difficult situations means we can amplify even more voices.

References for Chapter Six

- Aghasaleh, R. (2018). Oppressive curriculum: Sexist, racist, classist, and homophobic practice of dress codes in schooling. *Journal of African American Studies*, 22(1), 94–108. <https://doi.org/10.1007/s12111-018-9397-5>
- Anderson, M., Woods, A., Lavalley, B., & Cook, C. (2015). *Medical students plus: Medical school experiences of First Nations and Metis learners in Manitoba*.
- Brown, C. L., Beach Ducharme, D., Hart, K., Marsch, N., Chartrand, L., Campbell, M., Peebles, D., Restall, G., Fricke, M., Murdock, D., & Ripat, J. (2024). Diversity and development of Indigenous rehabilitation professional student identity. *BMC Medical Education*, 24(595), 1–16. <https://doi.org/10.1186/s12909-024-05576-y>
- Dhillon, S., Stroinska, M., Moll, S., & Solomon, P. (2023). Texts influencing the accommodation process of students with disabilities in professional rehabilitation programs: An analysis of discourse. *Disability and Rehabilitation*, 45(1), 176–184. <https://doi.org/10.1080/09638288.2021.2017027>
- Dhir, J., Blake, T., Cleaver, S., Smith-Turchyn, J., Miller, P., Smith, M., Udarbe Han, M., Gasparelli, K., & Wojkowski, S. (2022). The search for justice: Developing a collaborative understanding of health justice in physiotherapy. *Physiotherapy Canada*, 74(3), 227–229. <https://doi.org/10.3138/ptc-74-3-gee>
- Furman, E., Singh, A. K., Wilson, C., D'Alessandro, F., & Miller, Z. (2019). “A space where people get it”: A methodological reflection of arts-informed community-based participatory research with nonbinary youth. *International Journal of Qualitative Methods*, 18. <https://doi.org/10.1177/1609406919858530>
- Goldie, J. (2012). The formation of professional identity in medical students: Considerations for educators. *Medical Teacher*, 34(9), e641–e648. <https://doi.org/10.3109/0142159X.2012.687476>
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. Denzin & S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 105–117). SAGE publications.
- Hammond, R., Cross, V., & Moore, A. (2016). The construction of professional identity by physiotherapists: A qualitative study. *Physiotherapy*, 102(1), 71–77. <https://doi.org/10.1016/j.physio.2015.04.002>
- Jenkins, R. (2014). *Social identity* (4 ed.). Taylor & Francis Group.
- Kivunja, C., & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education*, 6(5), 26–41. <https://doi.org/10.5430/ijhe.v6n5p26>
- Lewis, A., Jamieson, J., & Smith, C. A. (2025). Professional identity formation in allied health: A systematic review with narrative synthesis. *Teaching and Learning in Medicine*, 37(1), 24–40. <https://doi.org/10.1080/10401334.2023.2290608>
- Lurch, S., Cobbing, S., Chetty, V., & Maddocks, S. (2023). Challenging power and unearned privilege in physiotherapy: Lessons from Africa. *Frontiers in Rehabilitation Sciences*, 4. <https://doi.org/10.3389/fresc.2023.1175531>

- Martin, D. E., & Kipling, A. (2006). Factors shaping Aboriginal nursing students' experiences. *Nurse Education Today*, 26(8), 688–696. <https://doi.org/10.1016/j.nedt.2006.07.013>
- Massaquoi, N., & Taiwo-Hanna, T. (2025). How we are represented is how we are treated: The pursuit of transformative anti-oppressive research. *Journal of Critical Research Methodologies*, 68–82.
- McCorquodale, L., & Deluca, S. (2020). You want me to draw what? Body mapping in qualitative research as Canadian socio-political commentary. *Forum, Qualitative Social Research*, 21(2), 1–28. <https://doi.org/10.17169/fqs-21.2.3242>
- Otubusen, O., & Thille, P. (2026). A Foucauldian reading of the multiple mini-interview tool used in Canadian physiotherapy admissions. *Physiotherapy Theory and Practice*, 42(3), 483–494. <https://doi.org/10.1080/09593985.2025.2571798>
- Primeau, C. A., Philpott, H. T., Vader, K., Unger, J., Le, C. Y., Birmingham, T. B., & MacDermid, J. C. (2023). Students' attitudes, beliefs and perceptions surrounding 2SLGBTQIA + health education and inclusiveness in Canadian physiotherapy programs. *BMC Public Health*, 23(1661), 1–15. <https://doi.org/10.1186/s12889-023-16554-2>
- Rodney, R., Hinds, M., Bonilla-Dampney, J., Boissoneau, D., Khan, A., & Forde, A. (2024). Anti-oppression as praxis in the research field: Implementing emancipatory approaches for researchers and community partners. *Qualitative Research*, 24(4), 872–893. <https://doi.org/10.1177/14687941231196382>
- Roslin, T. (2021). Vitriolic verification: Accommodations, overbroad medical record requests, and procedural ableism in higher education. *American Journal of Law & Medicine*, 47(1), 109–130. <https://doi.org/10.1017/amj.2021.8>
- Wagner, A., & Jackson, C. (2021). Developing grit and resilience: Using concurrent learning experiences to deepen attributes of professional identity formation. *New Directions for Teaching and Learning*, 2021(168), 79–88. <https://doi.org/10.1002/tl.20470>
- Wegrzyn, P., Judge, M., Lu, R., & Smith, M. (2021). A reorientation of belief: Considerations for increasing the recruitment of Black students into Canadian physiotherapy programs. *Journal of Humanities in Rehabilitation*, Fall, 1–18. <https://doi.org/10.18737/0607101054>

Artificial intelligence training statement

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Appendix One

Phone screening

Introduction

Thank you for your interest in this project. My name is Liz Harvey, I use she/her pronouns, and I am a PhD candidate in the Applied Health Sciences program at the University of Manitoba. I'm a physiotherapist by training and worked as one for many years in several different areas of practice. For the last 15 years, I have worked at the University of Manitoba as an instructor for physiotherapy students. I have had many conversations over the years with students, where I have learned how students sometimes feel separated from their classmates or other physiotherapists, because they have a background or characteristics that are less common in the profession. I have always been curious about their journey in the physio program, and how I, as an educator, can help to improve it. I identify as a White, cis-gendered, hetero, able-bodied woman, and I come from a high socioeconomic group. I recognize that most of those identities provide me with privilege. I aim to be an ally to those who don't belong to the same groups as I do, and therefore do not benefit from the same privilege. I think about this on a personal note too as I'm married to a non-white person and have mixed race children.

In this project, I aim to explore how current physiotherapy students who come from multiple marginalized backgrounds develop their professional identity, and what influences this development.

Do you have questions about what I have said so far?

This call is to see if you are indeed able to participate in this project. I have two questions to ask you to confirm eligibility, then I will explain more about the study if you are able to participate.

First, are you a student currently enrolled in a Canadian entry-to-practice physiotherapy program?

Second, I would like to ask you if you identify with more than one marginalized identity, or identities that have historically experienced inequality in our society. This can include, but is not limited to, identifying as:

- A Black, Indigenous or a Person of Colour (BIPOC)
- A member of the 2SLGBTQ+ community – Two-spirit, lesbian, gay, bisexual, transgender, queer, intersex and related identities

- A woman
- A person with varying abilities/disabilities
- From a low socioeconomic background
- A person living in a large body

Do you identify with two of these identities? Or have I missed something important in my questions?

Thank you for sharing with me. From this information, I see that you are

1. Not eligible to participate in this study. Thank you for your time in talking to me. Now that you know a bit more about the study, can you think of anyone that you could refer to who would be eligible?
2. Able to participate in this study. I'd like to tell you a bit more about your commitment to the project to see if you'd be interested in participating.

This study will involve about 5 hours of your time over the next several months. First, there will be a one-on-one virtual interview with me for about an hour. After this, I'll ask you to keep an audiodiary – which will be voice memos on your smartphone. This will happen in your own time, may include a few diary entries, and will likely take, in total, about an hour. Next, you will participate in a focus group with other participants, which will also be virtual. This will take up to 90 minutes (about 1 and a half hours). Finally, once I have looked through your responses, I will contact you to review the results I have put together. At this point, you can add to, delete, or continue any discussion with me. This part will take another hour.

To recognize the work and knowledge that you are bringing to the study, I would like to compensate you. I will send you a \$50 Amazon gift card after the first interview, a second \$50 gift card after the audiodiaries are finished, and a third \$50 Amazon gift card at the very end of the study.

If you are interested, I will send you an email with the consent form for you to sign, and a form for you to tell me a bit about yourself. You can read them over and ask me any questions that may come up either via email or via phone. Would you be interested in participating?

Appendix Two

Sample consent form

RESEARCH PARTICIPANT INFORMATION AND CONSENT FORM

Individual Interview and Focus Group

Title of Study: On becoming a ‘good’ physiotherapist: exploring professional identity formation in physiotherapy students with multiple marginalized identities.

Principal Investigator: Liz Harvey, R036–771 McDermot Avenue, Winnipeg, MB. (204) 977-5656

Co-Investigator: Patty Thille, PhD

Sponsor: Not applicable

Funder: Scholarship of Teaching and Learning Seed Grant

You are being asked to participate in a research study involving an individual interview, journaling, and a focus group. Please take your time to review this consent form and discuss any questions you may have with the study staff, your friends, or family before you make your decision. This consent form may contain words that you do not understand. Please ask the study staff to explain any words or information that you do not clearly understand.

Purpose of this Study

This research study is being conducted to study how physiotherapy students from multiple historically under-represented groups form their professional identity. We hope to better understand challenges and other influences on professional identity formation, so that we can improve training programs for future students. The study will also explore the benefits of using an arts-based approach to explore professional identity formation.

Participant Selection

You are being asked to participate in this study because as a current physiotherapy student in an English-speaking, entry-to-practice Canadian university program with more than one marginalized social identity, you have lived experience of forming a new professional physiotherapy identity.

A total of 10 participants will be asked to participate.

Study procedures and privacy

Three methods of data collection will be used in this study:

- 1) An individual interview over a virtual platform.
- 2) Audiodiaries (recordings of thoughts and stories on your phone, which you will share with the researchers).
- 3) A focus group, over a virtual platform. Focus groups are group discussions with other physiotherapy trainees who also know something about this topic.

The primary investigator, Liz Harvey, will do the individual interview with you.

For the focus group, you will be in a group of approximately 10 people. There will be a facilitator, again the primary investigator, Liz Harvey, who will ask questions and facilitate the discussion. At the start of the focus group session, everyone will be asked to respect the privacy of the other group members. All participants will be asked not to disclose anything said within the context of the discussion, and to not record the session, but it is important to understand that other people in the group with you may record the session and may not keep all information private and confidential. The co-investigator may attend to help with facilitation.

For both the focus group and the interview, you will be asked some questions relating to your experience with forming your professional identity as a physiotherapy student. These questions will help us to better understand how students from backgrounds historically excluded from physiotherapy develop their professional identity, and what helps or hinders that.

The sessions will occur via Microsoft Teams videoconferencing and will be recorded. All recordings will be transcribed into a written version by a student research assistant from the University of Manitoba, to ensure accurate reporting of the information that you provide. Transcribers will not discuss any item on the recording with anyone other than the researchers. The recordings will be stored in a secure cloud file maintained by the university before and after being transcribed. Recordings and transcriptions will be destroyed after 20 years, at the latest, after the completion of this study. The reason for this long duration is to allow us to compare your experiences to those of students in future years.

Your first name (and potentially last name) will be used during the interview and the focus group. However, we will discuss a fake name for you to use, which will be used consistently in our study documents, and when the results are published.

Time Commitment

Your total time commitment will be approximately 5 hours over several months. The interview will last approximately one hour (60 minutes), creating audi diary entries will take approximately

one hour (60 minutes) total over several weeks, and the focus group will be approximately one and a half hours (90 minutes). Once the data has been analyzed, Liz Harvey will contact you to consult with you on the results, where you can add, take away, elaborate and/or discuss the findings. This will take approximately another 60 minutes.

Risks and Discomforts

- There are no anticipated physical risks to participants. Focus group members will be asked to keep the information provided in the groups confidential; however, a potential risk that might exist for some would be that information about you might be discussed outside the group by other participants and be traced back to you.
- You may find talking about your experiences as a person with multiple marginalized social identities to be emotional, such as upsetting or affirming. You do not have to answer any question that makes you feel uncomfortable or that you find upsetting.
- Should you need any additional help or support, please visit Mental Health Support for free help (<https://www.canada.ca/en/public-health/services/mental-health-services/mental-health-get-help.html>), or contact student counseling services at your University. A separate email with local help will be sent to you from Liz Harvey after your first phone interview.

Benefits

Being a member of this study may not help you directly, but information gained may help other people like you, as future students in health care who enter programs from historically excluded backgrounds.

Costs

There is no cost to you to participate in the study, other than costs of WiFi or data access.

Payment for participation

You will be given gift cards totalling \$150 from Amazon for full participation. A \$50 gift card will be given after the initial interview, a \$50 gift card after the audiodiaries are complete and a final \$50 gift card after the focus group.

Confidentiality

We will do everything possible to keep your personal information confidential. You will choose a fake name in our first meeting. A list of names and addresses of participants will be kept in a password-protected file saved in a secure location, so we can stay in communication with you throughout the study. If the results of this study are presented in a meeting, or published, nobody will be able to tell that you were in the study. Please note that although you will not be identified as the speaker, your words may be used to highlight a specific point. The collection and access to personal information will comply with provincial and federal privacy legislations.

During the focus groups we ask that all participants respect and maintain the confidentiality of the discussion; however, it is not possible for the researchers to guarantee that everyone will do so.

Recordings of the group discussion will be typed and used in written reports and oral presentations. The recording and typed notes will be kept for 20 years on a secure online platform, with a backup on a password-protected, encrypted external hard drive kept locked in a file cabinet in the office (P. Thille's office, R131-771 McDermot Ave, Winnipeg, MB). Only the research staff will have access to them and know your name.

Some people or groups may need to check the study records to make sure all the information is correct. All of these people have a professional responsibility to protect your privacy.

These people or groups are:

- The Health Research Ethics Board of the University of Manitoba which is responsible for the protection of people in research and has reviewed this study for ethical acceptability
- Quality assurance staff of the University of Manitoba who ensure the study is being conducted properly.

If any of your research records need to be copied to any of the above, your name and all identifying information will be removed. No information revealing any personal information such as your name, address or telephone number will leave the University of Manitoba.

Voluntary Participation/Withdrawal from the Study

Your decision to take part in this study is voluntary. You may refuse to participate, decline to answer certain questions, or you may withdraw from the study at any time. If you choose to withdraw before the study is completed, your earlier data, including recordings from the sessions, will be used in the study unless you request a full withdrawal. If you do request a full withdrawal, it will not be possible to remove you from the focus group recording, but your information will not be used.

As a student, your participation or discontinuation in this study will not constitute an element of your academic performance nor will it be part of your academic record at your university.

Questions

If any questions come up during or after the study contact the principal investigator and the study staff: Liz Harvey at (204) 977-5656, or Patty Thille at (204) 789-3564.

For questions about your rights as a research participant, you may contact The University of Manitoba, Bannatyne Campus Research Ethics Board Office at (204) 789-3389.

Consent Signatures:

Audiovisual recording of interview and focus group		
☐ Yes	☐ No	I agree to audiovisual recording

1. I have read all 5 pages of the consent form.
2. I have had a chance to ask questions and have received satisfactory answers to all of my questions.
3. I understand that by signing this consent form I have not waived any of my legal rights as a participant in this study.
4. I understand that my records, which may include identifying information, may be reviewed by the research staff working with the Principal Investigator and the agencies and organizations listed in the Confidentiality section of this document.
5. I understand that I may withdraw from the study at any time and my data may be withdrawn prior to publication.
6. I understand I will be provided with a copy of the consent form for my records.
7. I agree to participate in the study.

Participant signature _____

Date _____

(day/month/year)

Participant printed name: _____

I, the undersigned, have fully explained the relevant details of this research study to the participant named above and believe that the participant has understood and has knowingly given their consent

Printed Name: _____ Date _____

(day/month/year)

Signature: _____

Role in the study: _____

Appendix Three

Interview guide and introduction to audiodiaries

Introduction:

Thank you for agreeing to talk with me. As I mentioned previously, I am conducting this project as part of my PhD thesis work. My supervising committee has members who are also deeply aware of injustice and do work aiming to improve education. I have also consulted with a small group of critical friends, who are people who have more than one identity from those historically underrepresented groups we discussed, and they have helped me guide this research. In our phone call earlier, I told you about my background and how I came to this research. Is there something else about me that you'd like to know before we go further?

This interview is the start of the research process if you feel comfortable continuing. After this, the next steps will be for you to keep an audio diary, which means taking some voice memos on your smartphone, and later to join a focus group with other students who are doing these same steps.

Everything you tell me here is confidential, and only I and my PhD committee members will have access to your information. When I write this research, I will use only your chosen fake name, which we will choose at the end of the interview.

If you're ready, I'll turn on the recording now, to start the interview.

Thank you for emailing me the completed consent form before this interview. I want to take a minute to review it, ask questions, and then I will confirm your continued consent. A reminder is that you can withdraw from the research at any time, and you can choose not to answer certain questions if you do not feel comfortable.

Table 4: *Interview questions*

Question		Type/purpose of question
1.	What interested you about this study?	Icebreaker, rapport building
2.	Have you had some experiences that you want to share right off the start?	Allowing for open conversation, rapport
3.	What drew you to physiotherapy in the first place?	Background, rapport building, introduction to habitus
4.	How has your understanding of the profession changed since you entered your training?	Salience over time
5.	In the questionnaire you filled out, you describe yourself as _____ and _____ (insert marginalized identities). What is it like to be _____ and _____ in physiotherapy? People have many different identities, which influence each other. For example, someone's experiences of being queer and living with a disability are influenced by being a woman or a man. You have mentioned 2 of your identities in our interview, being _____ and _____. Which of your <i>other</i> identities have influenced your	Intersectionality Asking questions to get at within-group differences

	experiences of _____-ism and _____-ism?	
6.	What do you see as things that give someone prestige or recognition in physiotherapy? Which of those things do you think you bring into the profession?	Probing for types of capital (symbolic)
7.	What parts of you or your background and identities have been especially valuable in physiotherapy? How did you figure that out?	Habitus and capital - positive
8.	What parts of you or your background have brought tension in physiotherapy?	Habitus, hysteresis, and capital – negative
a.	What about your financial background made it easier or harder for you in physiotherapy?	Probing for types of capital (economic)
b.	- How has your previous education, knowledge and/or skills helped you in physiotherapy? - Hindered?	Probing for types of capital (cultural)
c.	Which relationships or connections did you bring in with you that you think are considered valuable in physiotherapy?	Probing for types of capital (social)
d.	- What aspects of a person's body or their cognitive abilities do you see as being valuable in physiotherapy? - Which of those things do you think you bring into the profession?	Probing for types of capital (symbolic)
9.	Have those questions reminded you of some experiences that you would like to share?	Allowing for open conversation, rapport
10.	Please describe some experiences during classwork where being	Intersectionality Probing questions – context

	_____ and _____ was important and valuable. • In contrast, were there times when people were drawing attention to you in ways that didn't feel good or safe? If so, what was going on? • What about during clinical placement? • Can you think of policies or procedures in the physiotherapy program, or more broadly, in the university that made life harder for you as a _____ and _____ person? If yes, please tell me more about those. • Do you see many people like you in physiotherapy or in the University? How has the presence (or absence) of people like you affected you? • How are people with similar backgrounds to you taught about/talked about in physiotherapy?	(classwork/clinical placement) • open for positive and negative experiences first, then more negative experiences • Crenshaw's structural domain of power • Crenshaw's representational domain of power
11.	Have these questions reminded you of some experiences that you would like to share?	Allowing for open conversation, rapport

Thank you so much for sharing with me. I'll explain the next steps to you, but before I do, do you have some questions?

Is there a fake name you'd like me to use? If not, I'll give you one based on a colour you name and a street or place that has meaning to you – I would be Rosie McMasters.

I recognize that some of your answers to these questions or experiences that you've had may not have come to you during this session. You may leave here and think of many more!

Or things may happen after we end this conversation that you think are relevant to these

questions. This is the purpose of the audio diaries. The audiodiaries are a way for you to keep track of stories, reflections, or experiences on how your identities like your race, gender, abilities, and sexuality influence you becoming a physiotherapist. When you think of something, or when some event happens, record the event in Voice Memos app for iOS (iPhone) or Google Recorder (Android). I will send you a separate email with some guidelines for the audio diaries. Regarding the audio diaries, I will touch base with you around every two weeks, to remind you about keeping the diary. How would you like to receive reminders? Email or text?

Appendix Four

Audiodiaries – Sample E-mail

Hi xxx,

As we discussed, the audiodiaries are a way for you to keep track of stories or experiences on how your identities like your race, gender, abilities, and sexuality influence you becoming a physiotherapist. These events may happen to you after we first meet or may be ones that you think of after our one-on-one interview. Sometimes the questions in the interview will jog your memory later about previous experiences, or you may find you have new reflections on them, thanks to talking about them.

When you think of something, or when some event happens, record the event in Voice Memos app for iOs (iPhone) or Google Recorder (Android). When recording, work through these questions to guide you:

What happened?

When did this happen?

Where did the event happen?

Who was involved in the event?

How did this event make you feel?

What did this event tell you about becoming/being a physiotherapist, in relation to your other identities?

Please save these recordings in a spot that is backed up. After you complete a diary recording, please email it to me at Personal.Email@university.ca

Thanks,

Liz

Appendix Five

Focus group guide

Script

Introduction (timing – until end of code of conduct – 10 minutes)

Welcome! Thank you all so much for being here today! It is great to see everyone again.

This focus group is the third part of the study with which you have all been involved. I want to remind everyone that what you share in this group is confidential, and only my PhD committee members and I will have access to your information. When I write this research, I will use only your chosen fake name. As we stated in the consent form, I am asking everyone to respect the privacy of the other group members and to not disclose anything said within the context of the discussion today. I also request that you do not record the session. You have all signed the consent form attesting to keeping the confidentiality, but it is also important to understand that I cannot guarantee that people in the group now do not record the session and/or that they keep all information private and confidential. Are there any questions about this?

Code of conduct/rules

This is a slide on some guidelines that I have modified from one that my PhD supervisor, Patty Thille, has used in her work. It is meant to help create a brave space for sharing.

We agree to:

1. Be mindful of our tendencies – e.g., interrupting, talking a lot, talking little – and manage them.

2. Ask questions instead of assuming – and to do our best to not read too much into facial expressions or tone.
3. Demonstrate humility and understanding in accepting that we all have biases and move beyond them. We strive to support everyone on their learning journey, as long as no one's safety is being compromised.
4. Bring to the floor any emotions or reactions we are having that make it hard to stay present in the dialogue. This can be to speak directly or to use the private chat function to alert the facilitator (Liz) to open a discussion about something that just happened.
5. Take care of our own needs – e.g., to move, stretch, use the washroom when needed.

Do these ground rules seem ok to everyone? Would someone like to discuss, add, edit or remove any?

Outline (timing – 5 minutes until end of plan)

Here's the plan for the rest of the session. We'll do a round of introductions, then we'll have a discussion centred around the hand mapping. We'll take a scheduled body break at approximately the halfway or 45 minutes mark. When we return, we'll share and discuss what you came up with in the hand mapping. During the session, I understand if you need to turn off your camera or your mic at times, but please try to keep the camera on as much as possible to stay engaged in the discussion.

First, I thought we could do a round of introductions. You can use your first and/or last names, or if you prefer to use a pseudonym, that is fine too. Perhaps tell us your name and how far you are into your physiotherapy program.

Thank you!

Hand mapping (timing – 20 minutes until end of prompts)

Now, I will explain the hand mapping. I previously asked you to have a blank piece of paper and colored markers or pencil crayons available. We will be using an arts-informed practice called hand-mapping, which is a version of body mapping. First, I will ask you to trace your non-dominant hand on the sheet of paper. Next, I will give you some prompts to respond to in each of the fingers and the palm. You can write words, draw pictures and/or shapes, or a combination of those, using one or more colors that you like or anything else that comes to mind. Remember that you do NOT need to be an artist to do this! Stick figures and words work as well as drawings. We're going to use these drawings throughout the rest of the discussion too, so keep them close. I will also ask you to take a photo of it, which you can scan or take a photo of or snail mail to me after the group today. So, let's start with you tracing your non-dominant hand.

Prompt 1

Many of you talked about how the absence of anyone like you in your physiotherapy program has, at times, made you become a spokesperson or an advocate for yourself or for people with similar identities. On the thumb of your hand, please describe some of the techniques you have employed to make your identities more 'seen' by your classmates, instructors or patients.

Prompt 2

Conversely, all of you spoke about times in the program when you felt hyper-visible because of your identities. On the index finger, please describe techniques or strategies you use to make yourself fade into the background.

Prompt 3

Most of you spoke to me about how you use the strengths from identities to help make you a better physiotherapist. Using the third finger, draw or describe how your intersecting identities enhance you as a physiotherapist.

Prompt 4

All of you spoke about doing extra work to enhance your safety and experience relating to your identities, including internet searching, or speaking to professors, in preparation for either fieldwork/clinical placements or for academics. Draw or describe this work on the 5th finger.

Prompt 5

I heard a lot about the identities that dominate the profession. All of you shared that physiotherapy has a way to go and expressed a desire to spark change. On the fourth finger, please draw or describe actions that you are planning to take to push the field of physiotherapy to evolve.

Prompt 6

Now I want you to review what you have drawn or depicted on your 5 fingers. On your palm, please describe some emotions or reactions to these things. How do they make you feel?

Amazing! Let's now have our body break for 5 minutes – return at xx.

Body break – 5 minutes

Discussion (timing – 35 minutes until wrap up)

We are finished with the hand map, but feel free to add to it as we continue in the discussion. Now, I would like you to speak to an item or drawing on the map, choosing one that stood out to you for some reason. Please show or describe it to the group, then explain why it stood out to you. Once you have finished, I'll ask everyone for reactions, follow-up questions or comments on what you spoke about. Everyone will go around taking turns. We will keep going around, with you choosing another item that spoke to you, until everyone feels like they have shared all they wish to share. You can always use a 'pass' if you want to have more time to think about things. I will balance allowing for a great discussion with managing our time, so I may prompt us to move on at times.

Closing and future steps (timing – 15 minutes)

ADDED: I was deliberate about using an arts-informed method that focused on hands, given our profession. I am curious about what this process was like for you – the hand mapping.

Having listened and reacted to each other for the last hour, what is the big message you've heard across your experiences?

Thank you all so much for your willingness to share and support each other. After this, I will send you an email with the gift card to recognize your contributions, and information on how I will follow up with you when I am further into my analysis.

ADDED:

Please remember to send me a picture of the hand map via email – or let me know if you want my address to mail it in! Also please do not throw it out right away – I want to make sure I have a good copy of it before you do.

