Mapping a Path for Physical Therapy Service: An Exploration into Cultural Responsiveness through Cultural Humility - Phenomenon Phase

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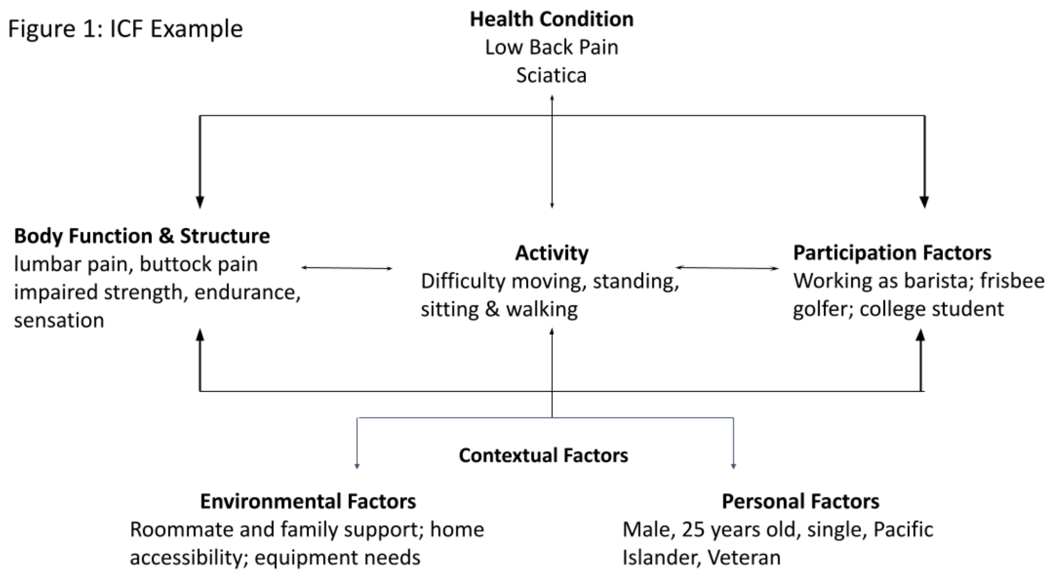
Background

Through the Affordable Care Act, Oregon has expanded its Medicaid program to include more beneficiaries, thus increasing access to primary care services. Although many LCC students may be able to enroll in the Oregon Health Plan (OHP), social determinants of health, including race and ethnicity, affect access and healthcare outcomes, most especially in primary care (Ndugga & Artiga, 2021). People in URM communities experience greater healthcare disparities, including decreased likelihood of accessing physical rehabilitation services (APTQI, 2020). These disparities are important because musculoskeletal health conditions, such as back and neck pain, are some of the major sources of short and long-term disability in the United States. At LCC, the effects of musculoskeletal conditions on students was highlighted in a 2012 LCC Honors Program student presentation, that cited musculoskeletal pain, either experienced by the student or experienced by the student-as-caregiver, as a significant, non-academic barrier to class and program persistence and completion. Structural barriers within the OHP prohibit physical therapy reimbursement; therefore, access to non-pharmaceutical treatment of musculoskeletal pain and related conditions is limited. Given that physical therapy providers also function as primary care for musculoskeletal health, students with OHP or without insurance have restricted opportunitites to improve musculoskeletal literacy and health habits that improve health outcomes (Ennis, Hawthorne, Frownfelter, 2012).

Physical therapy access alone does not improve health outcomes. For over 80 years, physical therapy providers applied a traditional medical model for disability: disease explained impairments, which explained limitations in function, and resultant disability (i.e. disablement). In 2001, the World Health Organization released the International Classification of Functioning, Disability, and Health model (ICF) (ICF, 2001), which explicitly represented how intrinsic and extrinsic factors were integrated and codependent factors influencing multiple domains. The ICF is a biopsychosocial model for health that defines *activity* as central to health, body function, and engagement in society, and considers the context of environmental and personal factors on activity limitations, participation restrictions, and optimal body function (ICF, 2001). For example, consider a LCC student who has low back pain and pain that radiates down the back of one leg (e.g., sciatica) (Figure 1). The ICF domains have reciprocal relationships, resulting in a dynamic system where changes within domains interact and influence activity outcomes. Environmental factors, such as social support, living situation, and physical accessibility provide input into activity ability, tolerance, or restrictions and activity ability, tolerance, or restrictions can influence economic, physical, and emotional supports.



Research Interest

The first phase of this sabbatical project was to explore environmental factors of self-selected LCC students, specifically listening to their beliefs, thoughts and experiences related to physical therapy services, physical therapy providers, and the physical therapy profession. There were several aims in this phase, specifically to increase collective awareness of physical therapy service needs and possibilities, particularly those aimed at serving members of underrepresented minority (URM) groups, and to meaningfully improve physical therapy access and equity. Given the influence of contextual factors on the body, health, activity and participation, it was important to listen to the lived experiences of students from diverse backgrounds and analyze for contextual factor themes. This project is my initial effort to advance my understanding of culturally responsive physical therapy care.

There is emerging evidence that culturally responsive physical therapy care improves patient engagement in physical therapy (Brady, Veljanova, Schabrun, & Chipchase, 2018). Culturally responsive care in physical therapy includes cultivating understanding and trust through perspective taking and respect for differences; therefore it is critical to actively listen to URM communities, and to approach listening with the intent to understand the “same” experience as they appear and feel to diverse groups (Brady, et al., 2018). Additionally, those who choose physical therapy as a career path share have often had some prior and proximal experience with a physical therapist or similar rehabilitation professional. I wanted to better understand self-selected students' beliefs about physical therapy services, setting, and providers so that I could develop strategies to be welcoming, inclusive, and responsive to students as prospective consumers. Lane has a successful history providing primary care,

dental care, counseling, and mental health care; however, there is no direct means for students with musculoskeletal and neuromuscular conditions to access physical rehabilitation services on campus or from Lane PTA students and faculty. I hoped to learn if physical therapy would fill a student health service need at LCC.

Research Question

How do selected LCC students describe their physical therapy experiences and needs?

Phenomenon Phase Methods

I designed an interpretive phenomenological student that included participant demographic surveys and semistructured interviews. All data collection materials were reviewed and approved through the LCC Institutional Review Board process.

Participants were recruited by direct outreach through the Lane Weekly and affirmed their willingness to participate and their understanding of a right to withdraw from the study at any time without prejudice. Each participant was randomly assigned an alphanumeric identifier. Interviews were by Zoom video conferencing and were recorded for transcription. Participants were interviewed for 20-45 minutes and answered semi-structured interview prompts about their thoughts and beliefs about physical therapy and physical therapy providers.

Interview transcripts were audited for accuracy by listening to recorded interviews and correcting any transcription errors. Any and all references to personally identifying information was removed, and where indicated, replaced with the unique alphanumeric identifier. Audited transcripts were uploaded into Dedoose Version 8.3.10 (Dedoose, 2019), a software program used for coding qualitative data. Dedoose is a web-based, password-protected subscription service for qualitative and mixed methods research. Several cases were selected for for review by a peer as a way to build trustworthiness in the analysis. Researcher field notes were uploaded into Dedoose and tagged to transcript data for analysis. Analytical memos provided an audit trail for code set development and collapsing codes throughout the data analysis process.

Participants

There were 12 enrolled LCC students who agreed to participate in the study. There was one student who reported they could not read, write, or understand English and their interview was conducted in part in Spanish and part in English with concurrent translation. There were 10 women, 1 non-binary, and 1 gender unknown participant. Three participants identified as white, and eight identifed as non-white, including asian/pacific islander, black, latina, and two or more races. Participant ethnicity was Hispanic origin (3) and Non-Hispanic origin (9). Education level included Bachelor's degree (1), Associate's degree (1) career certificate (1) some college (5), and high school diploma or general education diploma (GED) (3), some high school or secondary school (1). Seven participants had never received physical therapy in the United

States and 5 participants had received physical therapy services. Table 1 summarizes participant demographic data.

Table 1: LCC Student Participant Demographic Data

Participant Code	English fluency	Gender	Race	Ethnicity	Education Level	PT Consumer
M3	Yes	Woman	Two or more races	Not of Hispanic origin	Some college	Yes
C5	Yes	Prefer not to answer	Prefer not to answer	Prefer not to answer	High school or General Education Diploma (GED)	Yes
O9	Yes	Woman	White	Not of Hispanic origin	Bachelor's degree	No
U8	No	Woman	Latina	Hispanic origin	High school or General Education Diploma (GED)	No
D6	Yes	Non-binary	Black	Not of Hispanic origin	Some high school or some secondary school	Yes
L12	Yes	Woman	Prefer not to answer	Hispanic origin	Career Certificate - College level	No
N13	Yes	Woman	White	Not of Hispanic origin	Some college	Yes
P4	Yes	Woman	Asian or Pacific Islander	Not of Hispanic origin	High school or General Education Diploma (GED)	No
D17	Yes	Woman	White	Hispanic origin	Associate's degree (AA,	Yes

					AS, AAOT, AGS)	
K19	Yes	Woman	Two or more races	Not of Hispanic origin	Some college	No
F20	Yes	Woman	Two or more races	Not of Hispanic origin	Some college	No
X22	Yes	Woman	Asian or Pacific Islander	Not of Hispanic origin	Some college	No

Data Analysis

Data analysis was informed by the qualitative research design and research question. Interviews were analyzed using an interpretive phenomenological approach (IPA). Six steps characterize IPA: (1) reading and re-reading transcripts, (2) initial noting, (3) developing emerging themes, (4) searching for interconnected themes, (5) repeating the process with the next case, and (6) looking for patterns across cases (Smith et al., 2009).

IPA was applied throughout the analysis. I read and re-read transcripts in their entirety to become familiar with the content and to document thoughts and reactions with each reading (Smith et al., 2009). This process allowed me to consider multiple interpretations with each reading (Smith et al., 2009). I took initial notes on the interview transcript during reading and subsequent re-reads. Initial noting was used to capture my thoughts about the selected text that represented emerging themes related to the research question or areas for further exploration (Miles et al., 2014). These notes captured reflective thoughts and questions about the data and early classifications of data as beliefs about the physical therapy discipline and beliefs about physical therapy providers (Smith et al., 2009).

Coding was used as an analytic strategy to develop emerging themes (Miles et al., 2014). Codes were words or short phrases that summarized a thematic idea interpreted from the data. Codes were defined by exploring semantics, using dictionaries, and cross-referencing code descriptions with selected data to confirm agreement. There were seven code categories: four about physical therapy as a discipline and two about physical therapy providers or careers. physical therapy discipline descriptive codes were: 1) adjacent associations, 2) consumers, and 3) referrals. There were two unique physical therapy provider/career descriptor codes: 1) education and knowledge and 2) provider skills. Two descriptive codes, 1) emotions and 2) barriers, intersected with physical therapy as a discipline and physical therapy providers/careers. (Figure 2).

There were six themes that were developed from code set interpretation. These themes were further differentiated during the cross-case analysis of theme incidence. The following section presents each theme and its definition. Each theme is supported with thick descriptions that provide situated context for meaning. Thick descriptions are quotes extracted from the data

and attributed to a participant (Braun & Clark, 2006).

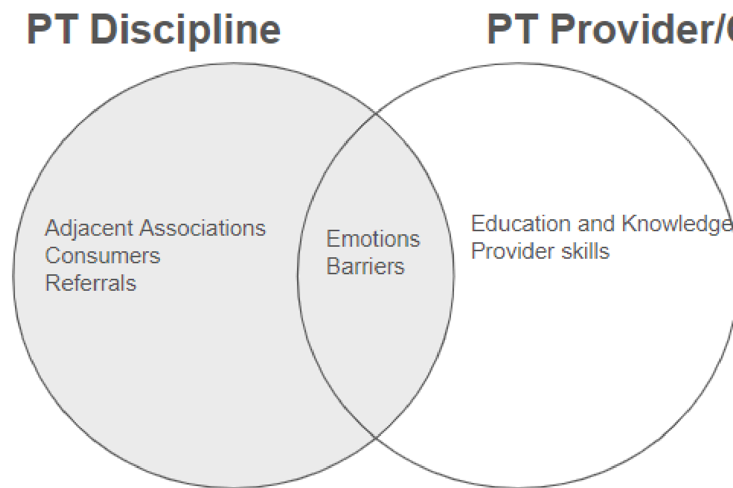


Figure 2. Descriptive Codes. Code sets included descriptions unique to physical therapy as a discipline or physical therapy providers and/or careers. There were two code sets that intersected physical therapy as a discipline and physical therapy provider/careers.

Findings

There were six descriptve themes develop from codes and cross case comparisons to answer the research question, “How do selected LCC students describe their physical therapy experiences and needs?”:

Theme 1: Physical therapy is non-allopathic/alternative.
Theme 2: Physical therapy is for high performers and dependent people.
Theme 3: You need a doctor’s referral to get physical therapy.
Theme 4: Physical therapists go to a specialized school to gain skills in human development, movement, science, and mental health.
Theme 5: Physical therapy providers are highly skilled and helpful movement professionals.
Theme 6: Is it worth it?

Theme 1: Physical therapy is non-allopathic/alternative

Participants varied in their understanding of physical therapy as a clinical practice discipline. Participants who had prior experience with physical therapy recognized it as integrated into the allopathic (e.g., western traditional) healthcare system. Participants who did not have prior experience with physical therapy generated associations by comparing it with other practices considered alternative or non-allopathic, such as chiropractic care or massage therapy. Participants also made comparisons with personal trainers or personnel that work in a

fitness center or gym to provide coaching in strengthening and conditioning exercises.

(M3) *I know, like at the gym that I used to go to. They had like a physical therapy, what is it called? And they kind of check how you are. See if you have, see if you need a possible referral or something like that. Okay, I know they kind of go to places like that where people might have injuries like at the gym. I know there's some buildings where they have physical therapy, and it and a chiropractor. I think.*

(F20) *Before I start... I started working in healthcare, I kinda I thought they were like a personal trainer, but they have more education to be able to help heal whatever was needed to be healed on the body. Like if someone had knee surgery or something, they knew what to do when moving the resident or client, in a way that would help benefit the healing process.*

Like these examples, many used terms like “healing” and movement analysis as integrated into the practice, and provided examples in clinical and non-clinical settings, including community swimming pools and services provided at a job site.

Theme 2: Physical therapy is for high performers and dependent people

Participants described physical therapy consumers as athletes, or individuals who engage in sports and recreation activities that require specific strength and skills. They commonly spoke about athletes needing physical therapy to recover from an injury, or related personal experiences of receiving rehabilitation services or knowing someone who attended physical therapy to recover from a sports injury or related orthopedic surgery. Outside of athletes, participants described physical therapy consumers as those who may need to depend on others to perform activities of daily living, namely due to advanced age or disability status. Participants described children, disabled people, women, and old people as likely consumers of physical therapy.

> (X22): I *think for the athlete I always think about like just both boys and girls before the elderly. I think it's more like woman who goes to the physical therapy a lot because I feel like man. It's more like they do exercise like regularly, and they already have like too much issues with their body.*
> Researcher: *Okay, so you think or older women are more likely to go than older men. Is that your thought?*
> X22: Yeah.
>
> (O9): *Yeah, I mean my family, like my mom, for example, she's broken both kneecaps, so she had to go to physical therapy after that surgery. I think my grandparents should have a couple of different surgeries where they needed to be on physical therapy. I think my grandpa had something with his back, and so he was on physical therapy to try to rework muscles because he was on bed rest for a while after back surgery. So he needed physical therapy to try to get some muscle back. But as far as my personal*

circle, I think it's primarily been after surgery is that people have went for physical therapy.

(P4): *I have an image of them working at the nursing home for the elderly people.*

(D6)*: When I first started the physical therapy I wasn't like "yay, I got to go to physical therapy" I was like, I can't believe I'm 30 years old, and i'm about to go to physical therapy .Like this is, for what, you know what I mean. So I didn't have the best attitude going into it, because I was still invincible in my mind. It's like, I'm too young for this, it's for old people.*

(M3): *I think most people kind of find out what physical therapy is after they've been injured or needed. So it could be a doctor, or if they get injured playing a sport. Maybe their coach recommends it. Or for me, a parent.*

Many participants identified pain or reduced function as the reason people might need physical therapy. Participants who had prior experience working in healthcare or had spent time in a healthcare setting as a caregiver or related paraprofessional generated additional examples that were non-musculoskeletal, including patients needing treatment related to cancer, such as lymphedema, cardiac events, and strokes. In these instances, the participants knew of someone or had observed someone with these non-musculoskeletal conditions receive physical therapy.

(D17): *My dad, he went into cardiac arrest and had a heart attack and had to see a PT to work on his heart muscle, is one. I know breast cancer patients that have had their breast removed and muscles relocated. So they had to work on those areas to strengthen them and kind of connect it to the brain. That that's the new That's the new normal*

Theme 3: You need a doctor's referral to get physical therapy

Participants largely thought that they would need to be referred by their primary care provider to access physical therapy services. These thoughts were based on personal experiences or beliefs about the healthcare system. Students who were less familar with the healthcare system in the United States were unsure about the process to access services. Participants who had prior positive experiences with physical therapy, either as a consumer or based on knowledge of physical therapy through work or family experiences, remarked that they self-advocated for physical therapy during primary care appointments. Several participants spoke about the role of coaches or parents in determining whether or not someone would be able to access physical therapy.

(N13): *For my knees, I sought that out because they were causing essentially chronic discomfort with no obvious reason. So I made an appointment with primary care again, because my stuff just has to go through primary care. The primary care was like, "yeah, I*

don't know. Go to physical therapy. Here's a piece of paper that says you can do that now".

(P4): *I think the most good thing is to ask for the doctor even if they are not physical therapist because they have the knowledge for that.*

(X22)*: So as an outsider perspective I actually don't know if there is any place in Eugene has physical therapists, because in [native country] we have like normal hospital, and then, like the facility just for the physical therapy to get massage. It's not like an actual medical surgery but to just get massaged. It's more like less intense stuff. And I, personally don't know where physical therapy is at because I only see urgent care here in Eugene, and I don't think they have physical therapists.*

(D17): *Currently my daughter has been having issues with her leg that I'm uncertain what to do with my lack of knowledge, and so I took her to her primary care doctor, in hopes that they'd recommend physical therapy and they did, which I was thankful for, and my daughter was hesitant that I wanted her to do physical therapy until she heard it from the doctor. So now she's more open to it.*

When M3 spoke about how people access physical therapy, she recounted a situation where a knowledgeable parent advocated for the participant to get a physical therapy referral.

(M3): I *believe her [M3's mother] sister is actually a physical therapist in Alabama, but I actually don't know too much about that: I think when she saw how my foot was, she was pushing for physical therapy, first because she knew how it worked and she knew it worked well because her sister doing it. So, yes she was the first person to push for it, and she told my doctor. And yeah, I think she has more sense of what physical therapy is.*

Several participants did not know where they could go to access physical therapy. They made associations with allopathic care by referring to a clinic or hospital and indicated they were likely to attend a location that was doctor recommended or that had good reviews on the internet. Several participants who had received physical therapy services identified a person as their "physical therapist" and indicated that they would return to the same person if they needed future care.

Theme 4: Physical therapists go to a specialized school to gain skills in human development, movement, science, and mental health

Participants shared similar beliefs about the knowledge and skills physical therapy providers must have to work in the discipline. Many acknowledged that in order to treat a variety of patients, one would need to know the needs of different people across the lifespan and apply

knowledge of anatomy and physiology and motor learning to their work. Some participants included beliefs or experiences about providers' role in building relationships and building trust as an individual recovered from an illness or an injury.

> (N13): *Well, I would assume obviously education regarding like the human body and how it works, and that it seems like a pretty basic requirement. Some sort of maybe education regarding like how to interact with people. How to interact with patients. I don't really know the level necessarily of schooling. Obviously enough that you know they can be trusted with somebody else because there is the trust involved of just with any health care thing ever this person better not be making this issue worse.*

> (M3): *A good physical therapist is one that listens to their patients when they tell them what they feel is wrong, what hurts? And then they listen to them about that, and especially when that explains everything that they're doing, and why you need to be doing it, because I feel like I understand things much better when I understand why I'm doing it and one that has passion for it and goes to the schooling, or whatever training they need to be doing, and loves what they're doing, and loves their patients and fully understands what they're doing so much that they're able to easily explain to their patients.*

Participants varied in their understanding of the amount of school a physical therapy provider needed to complete to work in the field. Knowledge variation was not consistently related to whether or not a participant had received physical therapy services. Some participants compared educational pathways with nursing, where they believed that one might start by earning an Associates degree, and then continuing their education toward a Bachelor's degree or graduate degree as they advanced their career.

Theme 5: Physical therapy providers are helpful, highly skilled movement professionals

All but one participant who had prior experiences with physical therapy spoke about how physical therapists are able to select exercises and train movement in ways that are highly skilled, individualized, and effective. They provided examples indicating that the clinical reasoning and decision-making processes were made evident by the providers' ability to explain movement and relate to their patients to create lasting change.

> (M3): *A good physical therapist is one that listens to their patients when they tell them what they feel is wrong, what hurts? And then they listen to them about that, and especially when that explains everything that they're doing, and why you need to be doing it, because I feel like I understand things much better when I understand why I'm doing it and one that has passion for it and goes to the schooling, or whatever training they need to be doing, and loves what they're doing, and loves their patients and fully understands what they're doing so much that they're able to easily explain to their patients.*

(N13): *When I had my wrist injury, I had a physical therapist who was very accommodating when it came to reevaluating some of the exercises and whatnot because just some things it….Physical therapy wanted me to be able to do, but at that point in time it's like that does not feel safe for my wrist injury because I had sprained it multiple times. So my physical therapist for that was accommodating, and was, you know, willing to use her knowledge to work with the exercises to something that I could do that was still helping me without the risk I had.*

(O9): *So I work at a hospital. I don't know if that's necessary information. So I see physical therapists on the floors a lot. I think they help a lot, you know, in orthopedic settings. And then also for people who have suffered neurological events where they would need that. I think it's necessary, especially if you know they've suffered events where they're not able to function as they used to. Physical therapists help go and help them out with walking and movement and other cases. I think it blends with other aspects of healthcare. There's so many different.. there is like dietitions, physical therapy and other specialized groups that all provide their unique aspect to help fully support someone's health.*

(Researcher): *Yes, when you think about the people who work in physical therapy, what types of words or thoughts do you have about the people who work as physical therapists?*
(L12): *Well, I would say those people are very brave because they are…They have to learn a lot about the body first, and they're going to be, at the other word to connect it, like, being humble, because they have to be in contact with people and understand, I would say, patient, like patiently right, and trying to understand what is the problem, in their body and like body functions, if that makes sense.*

Theme 6: Is it worth it?

Some participants generated responses in emotional terms when describing physical therapy and physical therapists. They reflected on subjective experiences with a change in body function and the physiological responses associated with those changes. For example, Participant C5 related a story about her parents' experiences and how physical therapy interventions are something one would find useful over a sustained period of time to prevent injury or exacerbation of a condition:

(C5): *[Name], my fiance. I'm just gonna call him [Name] now, because it's getting annoying. He did push ups wrong for years and years and years, and ended up with a weird shoulder injury that started coming out when we took up bouldering together, and if he did some range of motion and put stress on it, it would be like a really really sharp pain that he like couldn't even use it, and thus he was kind of afraid to do certain things, because, "what if I end up in that position all of a sudden". I badgered him until he went to the physical therapist, and the physical therapist actually didn't know what was going*

> *on, because he was kind of the newer guy, and so he called on this older, more experienced physical therapist, to come in and be like, "what is this?" They figured it out, and it turned out to be a very fixable thing, even though he'd had this problem for so long. Now his shoulder is almost completely functional, and he's still doing the physical therapy for it.*

Participant D17 noted that they believed there was a motivational barrier for accessing physical therapy because of exercise demands.

> (D17): *Hearing people talk about physical therapy, they're like, "oh, I have to go and exercise", because not everyone loves to do that. In my experience it is a big part of physical therapy. However, it's not the goal.*

Participant D6, who self-identified as someone who is physically disabled due to chronic, multi-system health conditions, related several instances where they experienced physical pain or discomfort in the short term, but found they were able to continue with treatment because of its long-term benefits and the therapeutic relationship with their provider.

> (D6): *They seem to be happy to be doing what they doing to helping people in a different way. You know what I'm saying like they don't seem as burned out as you would see a nurse, you know, working in the emergency room, or working on a standard in-patient floor. You know what I mean. Physical therapists seem more relaxed as a general being, you know. I just say more open minded like they don't, they don't have that frustration that some medical providers get when they might not be getting the cooperation they ask you for. You know what I mean. It's really different. I think they a different breed, but I think that you know that's hands on care. So you know that's the humaneness in them. That's what they doing. It is hands on care. You have to have that type of compassion in order to go into this field, You don't just want to help people to be mean to people.you know. You want to help people because you enjoy doing it and with physical therapy you can see that with most physical therapists. You can feel it. Oh, yeah, it could be strenuous. It could be painful. It could be dreadful. It could be dreadful. But it also can make you feel better. You know not just physically, mentally because you're doing something consistently trying to improve your health in some type of capacity. So it's a very complex emotional roller coaster as well as a physical roller coaster, you know. Sometimes it's a breeze depending on what you're there for. You know what I mean?*

They also reported how their prior traumatic experiences with others resulted in a need to feel safe in a physical therapy setting. They related examples of how perceived threats or triggers in the physical therapy setting would interfere with access to services.

> (D6): *I have to have a female physical therapist, and that is just a self protection because things happened to me when I was a kid, right. And then I am a very intuitive person because of things that happened to me as a child. So when I meet somebody, that's why it has to be personable for me, right? I am…I have an awareness the moment I'm within*

your space or you're within mine that supersedes everything. So I'm watching you. I'm listening to the tone of your voice. I'm watching your movements. I'm watching your reactions to my responses and everything. I'm have this awareness, you know, because I need to feel safe, right I gotta know that I'm safe. If the vibe ain't right, I'm good. I will politely dismiss myself, you know what I mean. The trust.. that's trust that's trust. It's a build up of trust, you know you have to have awareness. If you are uncomfortable with any medical provider or anyone, that's okay, and you can leave that situation. So I'm very aware of that.

Similarly, Participant C5 spoke about experiences where they felt that a healthcare provider was more profit motivated in their treatment plan recommendations and used that as a comparision for the value of physical therapy.

> (C5): *They'll sell you a service even when you don't need it. And there isn't necessarily a problem, whereas physical therapy, Obviously, if you got like a really bad person that was doing it. Then they could probably figure out a way to do it. But generally it seems like they are fixing real problems with real solutions that will last a long time that you do actually need.*

Participant F20 noted the intrinsic rewards they believed that physical therapy providers must experience when they have assisted someone physically recover over time from a debilitating condition. They acknowledged that it took time and persistence yet resulted in a transformative benefit to the patient.

> (F20): *Well, I mean I saw it in the rehab facility that I worked at. I had been working there for, I don't know, maybe a month, and this resident was practically bedbound almost. After that month had passed when I came back, because I was like an agency-type person, so I didn't work there all the time. And then when I came back, and I saw this resident, they were almost like a completely different person. There was a lot of movement like trying to get up on their own, and it was... it was amazing, seeing that transition from before.*

Others, like Participants X22 and K19, believed that physical therapy is something that is only necessary following a major medical event, like a surgery, and that is otherwise not very necessary for a more general population or non-operative musculoskeletal conditions that did not meet a severity threshold.

> (X22): *I do think it's important. But then part of me still believes that it's something nice to have, but we don't necessarily need it, like a doctor. Because most of the causes to go to the physical therapist, it's not like a really really big issue that's connected to life, but less. So I think it's not too important. But then, after people after the surgery, they actually need physical therapy to move and do the normal stuff, as people do. So I think for the athletes and normal people who just has pain want go to see therapist, it's not too important, but those who just finished the surgery, and they actually need to work with*

the physical therapies to do the normal life… to spend the normal life. I think it's really important.

(K19): *I feel like in my… like when I think about it, I mostly think about it helping people walking. I feel like it is to help.. I don't know…like help a recovery be faster or more like more useful, because I just recently sprained my ankle. But there wasn't ever any point where I was thinking like, "oh, maybe I need physical therapy", because I'm not actively playing a sport or anything like that, and it was like hard to walk, but it was fine. I only think of like ACL tears, or like serious injuries or things like that.*

(Researcher): *I see. So when you think about when someone, like if they've had an injury, and when they would try physical therapy, it sounds like you're thinking of something that was pretty serious.*
(K19): *Yeah, that like needs rehabilitation.*

There was awareness of cost as a factor when determining if one would choose to see a physical therapist or seek physical therapy services. Participant L12 about physical therapy as unnecessary for individuals who practice healthy habits, as these habits would prevent having to pay for healthcare services. Participant X22 reflected on cost as a reason for limiting physical therapy access for conditions that were more disabling.

(L12): *You can, a good care yourself right? To prevent you not going, because you don't, are not going to need it. A good habit or in your diet, right? For me, especially, if I was prevented from going there, it's going to be money because it costs money, right? I got to be more cautious to try to see, find good resources, what is good for me to avoid some harm to myself and avoid not going or not needed it. But any resource, it can be any…. anything can be a situation. We never know what happened, but could be any situation that you can go and you maybe don't know how you can prevent exactly that one, to receive a treatment in physical therapy. But any occasion could happen, and you gonna need it, some in the future.*

(X22): *I think, in the situation when they I like really in pain, and they cannot sleep. Because I understand here in the US, even with the insurance. I think the cost of going to the physical therapist is going to be really expensive, so I don't think everyone would go if they have a little pain. But like the pain, like you, really really painful, and then, they cannot even sleep level, I think they would go to the physical therapist.*

Participant O9 had a similar thought, where they remarked on how the level of urgency or subjective ability to recover independently would affect willingness to access physical therapy

(O9)*: I think there might be a feeling where it's not like a life threatening concern to a lot of people, or they think that they would be able to do that sort of rehabilitation on their own. So they might feel like it's not something that needs to be performed immediately.*

While all participants reported the intrinsic reward from the career as a high value outcome for physical therapy providers, Participant X22 reported that prospective wages for physical therapists affected the value of physical therapy as a career.

> (X22): *But in general, I don't think a lot of people have too good impression about it because like physical therapy, and then doctors, if we compare, and like considering, they need to like, do like similar requirements. Doctors have like more fancier, and then some way like they get more money.*

Participant U8

Participant U8 attended one of Lane's rural campuses and was the only participant who reported they were not fluent in English. They disclosed at the start of the interview that they had lived in several countries, most recently relocating to Oregon, and that they consider themselves Mexican by paternal heritage and Spanish is their first language. I conducted some of this interview in Spanish and in English. When answering questions in English, they intermittently used a translator on their computer to generate responses in English.

After defining physical therapy as a healthcare service that helps with movement, U8 seemed to have little understanding of physical therapy as distinguised from a more generic therapy or behavioral health services.

> (Researcher): *Piensa que terapia fisica es necesario para usted o para otros in su familia o sus amigos? (Do you think that physical therapy is necessary for you or for others in your family or your friends?)*
>
> (U8): *Si, es muy importante porque no es lo mismo que hablar con un persona que no te concoce a hablar con tu familia. Tienen otro punto de vista y el terapeuta puede a aconsejarte que piensas, Porque? Porque te enojas? O Porque lloras? Porque a tu es a manera así su sientamiento es ahora or en el pasado? Entonces, te hace pensar más profundidad. Yo creo que si es algo bueno aunque la persona no tenga un enferma graves piscologia mentalmente. Daríamos de todos tener terapeuta.*
> *(Yes, it's very important because talking to a person who doesn't know you is not the same as talking to your family. They have another point of view and the therapist can advise you about what you are thinking, why? Why are you mad? Or why are you crying? Why is the way you're feeling now or in the past? So, it makes you think more deeply. I think that it is a good thing even if the person does not have a serious mental illness. We would all like to have a therapist)*

I explored a different line of questioning to try and provoke a response about physical therapy knoweldge or experiences based on their report of a work-related shoulder injury they obtained from working at McDonald's.

> (Researcher): *So in this area [motions and touches right shoulder] you went to the hospital. They gave you painkillers. You still have the pain, and you still have limited*

> *ability to exercise. Do you have any ideas of what else you may be able to do, or what other treatment you may be able to get for it?*
> (U8): *No, I try, yoga but that position I don't know it's complicated for me.*
> (Researcher): *Okay has anyone that you know gone to see a therapist who treats the physical body, who helps people move better or reduce their pain when they move?*
> (U8): *No, I don't know here in [coastal Oregon city] have a therapist or I need my doctor they give me a prescription to go to the therapist.*
> (Researcher): *yes, okay. So you're not. You're not...You have not been told or taught about other people that you could see for healthcare to help this [motions and touches right shoulder] get better?*
> (U8): *No*

This participant had prior experience with musculoskeletal pain, was offered narcotics in Urgent Care for pain management, and did not experience substantial improvement. Her lack of understanding about non-pharmaceutical musculoskeletal treatment options and how to access those became known during the interview.

Evaluation of the Findings

The findings of this study filled a gap in my understanding about how community college students describe their beliefs about physical therapy and physical therapy providers/careers. I was suprised to learn that there were some participants who believed physical therapy was non-allopathic, describing services that may be interpreted as less essential than primary care. The findings confirmed that participants develop their beliefs about physical therapy through their experiences with doctors, family members, or first-person consumer experiences. Participants who had limited experiences with accessing healthcare outside of primary care were far less likely to know about physical therapy.

When participants made associations with allopathic care, it was often while referencing more catastrophic or severe issues, such as surgeries, accidents, falls, or strokes. The idea that physical therapy is for athletes or those who have athletic recreation interests, and then for those who required some form of surgery or who were older adults, suggested to me that physical therapy as a discipline can improve its public relations to help students better understand the depth and breadth of services within the discipline. I found it interesting that many cited the severity of symptoms as a necessary justification to pursue care. Additionaly, barriers to care, such as the referral process, concerns about cost, and lack of familiarity with the healthcare system, appeared to disparately affect students who had little to no experience with accessing services. Participant U8 reflection on receiving pain medication and no alternatives or follow-up care is concerning given the association between prescribed opioids and addiction disease.

I was also surprised by how many participants were unaware of the education pathways and the education requirements for physical therapy providers. Although participants were unanimous in their beliefs that physical therapy provdiers are well-educated with knowledge of body systems and lifespan, they did not consistently know the amount of education, and in some cases, were unaware of the Physical Therapist Assistant (PTA) career pathway. Again,

those participants who had direct contact with physical therapy providers were more likely to understand the required graduate degree for physical therapists, and many referred to their knowledge of the nursing education model (e.g., Associate to Bachelor's) to inform their beliefs. The fact that the participants were largely unaware that LCC has a Physical Therapist Assistant program is an indicator that there is more work to be done to improve student awareness of professional pathways and physical therapist career opportunities.

The uniqueness of Participant U8 as the only participant who was not fluent in English is of particular importance, as their knowledge frame for physical therapy was quite limited and they believed physical therapy was for psychological support and counseling. This reminded me of the importance of having outreach materials in multiple languages as a way to build understanding of physical therapy as a discipline and to build understanding of ways one may access a physical therapist or advocate for a physical therapy referral for musculoskeletal or related treatment. It also reminded me that linguistically, the word "therapist" can become conflated with counseling for emotional and psychological health for non-native English speakers. Community-based education in physical therapy and injury management should include basic, translated information about what physical therapy is, where it is provided, a right to an interpreter during visits, and how to access it at low to no cost.

Finally, it was interesting to learn that some participants expected that there may be a certain amount of suffering or other life impacts to be compelled to see a physical therapist. Conditions resulting in a loss of sleep, severe pain, or other severe disruption to daily activities were more likely to be considered worthy of physical therapy interventions. When consdering service needs for the student population, one should consider an educational campaign that talks more about prevention education beyond a generic "eat right and exercise" approach to musculoskeletal health. Physical therapy services that are convenient and low to no cost may be a means to change beliefs that one must experience significant disability or harm before intervening with physical therapy.

Conclusions, Implications, Recommendations

This interpretive qualitative inquiry explored self-selected LCC students' beliefs about physical therapy and physical therapy professionals/careers. Through this inquiry, I was able to better understand the thoughts, attitudes, and knowledge participants have about the musculoskeletal and neuromuscular injury management and prevention, and socioeconomic, cultural, linguistic, and environmental factors that shape beliefs about physical therapy and related experiences. There were six themes derived from the analysis to answer the research question: How do selected LCC students describe their physical therapy experiences and needs?

Participants expressed general knowledge of scope of practice and health conditions that may benefit from physical therapy, yet did not agree on the value of physical therapy. The value of physical therapy was directly influenced by care received, or knowledge of care provided to another (e.g., parent, child, grandparent), and by access, namely cost and required referrals. Participants who had direct experience with physical therapy providers spoke highly of the relationship between the physical therapy provider and the consumer. They were able to provide examples of active listening, clinical problem-solving, team work, goal setting, and

effective communication that they believed physical therapy providers used with their patients. This finding reinforces the importance of a therapeutic alliance on physical therapy outcomes, especially for patients with chronic musculoskeletal conditions (Kinney et al., 2020). When considering PTA program education outcomes and prospective community needs for physical therapy care, it is essential to cultivate strong therapeutic alliances between physical therapy service providers and students much like the participants in this study.

Although the number of participants was limited to 12, they identified from a diverse range of races, ethnicities, and educational levels. Each had unique experiences and perspectives with some common threads, such as the importance of feeling seen and heard by the healthcare system. This study reinforced to me that thoughts about physical therapy are influenced by experiences within any healthcare system, and that any plans for physical therapy access and treatment for students will need to recognize that as prospective consumers, students will have expectations, both positive and negative, based on those experiences and health beliefs.

Implications from this study reinforced the weight of contextual factors in healthcare outcomes. Participants understood that there are health conditions that necessitate physical therapy, like surgery or major injury, and acknowledged that contextual factors were the primary barrier to accessing services: things like convenience or inconvenience, cost, time, and location were all factors that could influence accessing care for a health condition. These findings expanded my framing for contextual factors, namely that they can be beliefs about what is tolerable, what suffering is expected before seeking care, and beliefs about harm or potential harm from accessing services even when necessary (such as maintaining body autonomy or trusting the providers recommendations). Until this study, I had not considered healthcare beliefs as integrated into the ICF model and I now feel I have a better understanding of how to integrate sociocultural and linguistic factors into clinical decision making and teaching.

These findings inform the modeling phase of the sabbatical study, where I will continue to explore physical therapy service delivery methods at Physical Therapist Assistant prgorams and make recommendations for possible physical therapy service delivery at LCC. The aim is to develop a concept map for culturally responsive physical therapy services for Lane students that is informed by participant needs and operational experiences at similar education programs hosted at community colleges. Through deep reflection and analysis, I have become more equipped with perspectives that inform my personal and future professional efforts to reduce healthcare disparities, and advance healthcare equity community-based physical therapy outreach, education, and services.