Exploring the experiences of physiotherapists supporting people with back pain to describe perceived influences on patient-therapist interactions and barriers to bio-psychosociocultural approaches in physiotherapy practice.

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Abstract

Back pain related disability and the associated cost on the health care system is a significant health problem in New Zealand, and physiotherapists working in private practice play an important role in supporting people to manage their condition. However, little is known about the practises of physiotherapists, or factors that potentially influence interactions with patients and impact their practices. Supporting people with back pain from a bio-psychosociocultural perspective is also a professional competency requirement to practice physiotherapy in New Zealand. It is also required by the Accident Compensation Corporation (ACC) when providing services to ACC claimants However, little is known about the challenges or barriers physiotherapists experience when they attempt to implement these types of approaches with people with back pain in this health setting. Improving understandings of patient-therapist interactions and barriers to bio-psychosociocultural approaches in the context of this condition~~,~~ may inform ways to improve patient-therapist interaction experiences, and potentially, clinical outcomes for people with back pain who consult with a physiotherapist. The aim of this research, therefore, was to explore the experiences of physiotherapists supporting people to manage their back pain in private physiotherapy practice to describe perceived influences on patient-interactions that potentially impact their practises. The secondary objective was to provide new insights into barriers to physiotherapists supporting people with back pain from a bio-psychosociocultural perspective in this health setting.

Using Interpretive Description as the research methodology, eight physiotherapists working in private practice who support people with back pain were recruited and were interviewed. Interviews were transcribed and then analysed using Braun and Clarke's (2022) six-step Reflexive Thematic Analysis process. My interpretations revealed four interrelated influences with bio-psychosociocultural dimensions: therapist perceptions about their patient's personal characteristics and psycho-sociocultural context; the nature of the relationship and whether it is characterised by confidence and trust; tensions between patient-therapist care preferences and expectations; and lastly, whether patients engage with their therapist and physiotherapy care. Individually, or in combination, these influences were perceived to play a key role during interactions and influence the approaches therapists take up when supporting people to manage their back pain.

My findings provide important new insights into the complexity of the context in which many, if not all, interactions between physiotherapists and people with back pain take place. Practise decisions arise in the moment of therapy out of relational dynamics that emerge when patients, with their own unique personal characteristics, psychosociocultural dimensions, condition beliefs and care preferences, interact within the context of a condition characterised by diagnostic and other condition uncertainties. Together with beliefs about the adequacies of their professional training and role responsibilities, uncertainties about how to navigate the complexity of this context are sources of professional insecurities that undermine supporting people to manage their back pain from a bio-psychosociocultural perspective in physiotherapy practice.

They also reveal that interpersonal connectedness is the foundation of physiotherapy practice. Physiotherapists need to become more accepting of themselves as interactors who are confident practicing from an interdisciplinary-within perspective. This requires occupational reimagination and transformative change to embrace a broader conceptualisation of their role, and greater self-awareness of the effects of relational dynamics on their practices. These changes require reflexivity and new skills. Unless physiotherapists develop these skills, interpersonal relational barriers to improving the outcomes of physiotherapy care and supporting people with back pain from a biopsychosocial perspective in physiotherapy practice will remain.

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List of Abbreviations

ACC	Accident Compensation Corporation
ADHB	Auckland District Health Board
BHScPhysio	Bachelor of Health Science (Physiotherapy)
BScPhysio	Bachelor of Science (Physiotherapy)
CINAHL	Cumulative Index to Nursing and Allied Health Literature
EBSCO	EBSCO Information Services
IPRCA 2001	Injury Prevention Compensation and Rehabilitation Act (2001)
MEDLINE	Medical Literature Analysis and Retrieval System Online
MHPr	Master of Health Practice (Musculoskeletal Physiotherapy)
MHSc	Master of Health Science
NZMPA	New Zealand Manipulative Therapists Association
PEDRO	Physiotherapy Evidence Database
PICO	Patient/Population, Intervention, Comparison and Outcomes
PubMed	Publications Medical

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it does not contain any material previously published or written by another person (except where explicitly described and referenced within text). It also does not contain material that has been submitted for the award of any other degree or diploma from a university of other institution of higher learning.

Steven Ellery

18th June 2023

Acknowledgments

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Ethics Approval

Ethics approval was obtained from the Auckland University of Technology Ethics Committee prior to commencing my study (Ethics ref: 19/12; Appendix 1).

My study was also conducted in accordance with all relevant legislation governing the ethical conduct of health research involving human participants in New Zealand. This includes complying with New Zealand's Public Health and Disability Act 2000, National Ethics Advisory Committee's Ethical Guidelines for Observational Studies 2012, Privacy Act 1993, and Code of Health and Disability Services Consumers Rights 1996.

Although seeking to understand Māori- or Pacific-specific perspectives was not included as an explicit aim of my research, Māori or Pacific physiotherapists were likely to be working in the Auckland region, and their experiences may have contributed unique and important insights relevant to my research question. Therefore, before my study commenced, I also discussed my proposal with the Auckland University of Technology's School of Clinical Sciences Mātauranga Māori Committee. The Committee provided valuable feedback on how I might improve the participation of Māori or Pacific physiotherapists in my study and the cultural responsiveness of my research processes (Appendix 2).

Thesis Structure

This thesis consists of ten chapters:

Chapter One: Introduction.

This chapter introduces my study including the aims and objectives, my methodology, the background to my research, the importance of exploring my question in the context of the New Zealand health system, and my personal interest in the topic. The chapter concludes with a brief description of key terms.

Chapter Two: The literature review.

This chapter describes my literature review to understand the findings and methodologies used in previous research. It includes an interpretive synthesis of the findings of included studies, critical appraisal of their methodologies and methods, and a reflection on the limitations and strengths of the review methods. The chapter concludes by briefly summarising the implications of the findings of the review for the methodology and methods of my own inquiry.

Chapter Three: Professional discipline perspectives and positionality.

This chapter critically discusses the role the physiotherapy profession's discipline perspectives play in the practices of physiotherapists, and research into physiotherapy theory and practice. It also discusses my professional and personal experiential perspectives to make transparent how they potentially influenced my research processes and findings. The chapter concludes by briefly summarising the implications for the methodology of my inquiry.

Chapter Four

This chapter describes how I identified Interpretive Description as my methodology, its key epistemological and philosophical assumptions, and how/why the key philosophical assumptions were congruent with my research objectives. The chapter concludes by briefly describing the implications of the methodology for my research methods.

Chapter Five

This chapter describes the methods used in my inquiry, including discussing the rationale for why methods were chosen and how they were congruent with the epistemological assumptions of Interpretive Description. This Chapter also critically appraises quality considerations and describes how credibility and rigour are demonstrated throughout my research processes.

Chapter Six

This chapter sets out my interpretive findings including a description of the study participants, my interpretation of the participants general perspectives about working with people with back pain, and the four interpretive themes I constructed during my analysis.

Chapter Seven

This chapter discusses and critically reflects on my findings in the context of existing theory and research that has previously explored influences on patient-therapist interactions.

Chapter Eight

This chapter critically discusses the implications of my findings for applied clinical practices including outlining changes that are needed in individual therapist behaviours, and recommended changes to entry level professional training, continuing professional development, and professional mentoring and supervision. The Chapter concludes by briefly outlining the challenges of making these changes in the context of potential health system barriers.

Chapter Nine

This chapter contains a critical reflection on the strengths and limitations of my research. It also contains suggestions for future research.

Chapter Ten

This chapter provides an overall conclusion to my thesis and summarises my recommendations for the future directions of physiotherapy education and practice.

Chapter One – Introduction

Physiotherapists working in private practice in New Zealand play an important role in supporting people with back pain to manage their condition. For instance, physiotherapists working in private practices were responsible for lodging over 30% of the accident-related lower back injury claims accepted by the Accident Compensation Corporation (ACC) in 2019-2020 (ACC Statistics, 2020; Appendix 3). They also received over $12 million in payments from ACC in return for their services. However, notwithstanding the prominent role physiotherapists appear to play in supporting people who have back pain, surprisingly little is known about the practices of physiotherapists working in private practice, or factors that potentially influence interactions with patients and impact the ways they support people to manage their condition. Managing patients from a bio-psychosociocultural perspective is also a professional competency requirement to practice physiotherapy in New Zealand and required by ACC when providing services to ACC claimants (ACC 1999; New Zealand Physiotherapy Board, 2018; Physiotherapy Board of New Zealand, 2024). However, little is also known about the challenges or barriers physiotherapists experience when they attempt to implement these types of approaches with people with back pain in this health setting.

Consequently, the aim of my research was to explore the experiences of physiotherapists supporting people to manage their back pain in private practice to describe perceived influences on patient interactions that potentially impact their practises. The secondary objective was to provide new insights into barriers to physiotherapists supporting people with back pain from a bio-psychosociocultural perspective in this health setting. To my knowledge there had not been any previous studies conducted in New Zealand with these objectives. I hoped that new insights and understandings into influences and barriers gained from my research could help inform ways to improve interactions between people with back pain and physiotherapists and inform strategies to support the implementation of bio-psychosociocultural approaches in this context. Identifying and recommending ways to improve interactions and support people from a bio-psychosociocultural perspective and implementing those recommendations in clinical practice could also improve outcomes for people with back pain who consult with a physiotherapist.

The remainder of this introductory chapter is presented in four parts. Part One provides a more detailed description of the background and context of my study. Part Two critically reflects on the potential importance of the health system context in which private physiotherapy practitioners in New Zealand operate. Part Three contains an overview of my professional background and reasons for exploring this topic (this is explored further in Chapter Two where I reflect on and explore my own positionality and pre-assumptions). Part Four briefly describes the methodological approach I chose for my inquiry (Interpretive Description) and restates my objectives. This topic is explored in greater detail in Chapter Four. Part Five concludes my introduction with definitions of some of the key terms used throughout.

Part One: Background and context of my study

Back pain and physiotherapy in New Zealand

Back pain is the number one cause of years lost to disability globally (Vos et al., 2016). Despite increased knowledge about the multi-dimensional bio-psychosociocultural factors contributing to the condition, improved understandings of the effects and benefits associated with a wide range of interventions and increased financial investment in the prevention and management of the condition, back pain related disability and its cost burden continues to rise globally (Buchbinder et al., 2018; Hartvigsen et al., 2018; Hoy et al., 2020; Vos et al., 2016). This situation is reflected in New Zealand where the condition is the leading cause of health loss in people aged between 15 and 64-years-old, and the number one cause of years lived with disability in the population (New Zealand Ministry of Health Statistics, 2016). Although public health spending and the indirect social and economic cost to people with the condition in New Zealand are difficult to quantify, in 2019, New Zealand's main accident-related injury insurer, the Accident Compensation Corporation ("ACC"), accepted 249,849 claims for accident-related back injury claims and spent an estimated $437 million on treatment and rehabilitation services for those injuries (ACC Statistics, 2020).

In the New Zealand health system, physiotherapists working in private practice appear to play an important role in supporting people with back pain to manage their condition (Hill et al., 2023). As noted in the introduction to this chapter, physiotherapists working in private practice were responsible for lodging 30% of the lower back injury claims accepted by ACC and received over $12 million in payments from ACC for their services in 2019 (ACC Statistics 2020, Appendix 3). According to ACC, these costs are increasing. Between 2007 and 2017, both the number of accident-related claims for back pain lodged by physiotherapists and number of treatments provided by physiotherapists to ACC claimants increased by 84% (ACC Financial Condition Report 2016, 2017). These increases caused the costs of physiotherapy services to ACC claimants to increase by 71% from $3.5 million in 2007 to over $12 million in 2019 (ACC Statistics, 2020). Although the average cost for physiotherapy services per claim ($223) compares favourably to alternative care pathways such as the combined cost of review with a specialist, referral for imaging, and surgery ($16,891), it is unclear whether services provided by physiotherapists are cost-effective or lead to satisfactory outcomes people with the condition. It is also unclear which pathways of care result in superior outcomes for people with the condition at a sustainable cost to the healthcare system. Improving understandings of the practises of physiotherapists, and in particular influences on interactions between people with back pain and physiotherapists that potentially impact therapist practices, could therefore, be important to informing the delivery of services to not only ACC back injury claimants, but also other people with back pain who consult with a physiotherapist.

Back pain and requirements to practice from a bio-psychosociocultural perspective in New Zealand

Contemporary understandings of back pain suggest that it is condition is characterised by its multi-dimensional complexity and the interrelatedness of biological, psychological, and sociocultural factors (Hartvigsen et al., 2018; Maher et al., 2017). As such, clinical guidelines in many countries (Bernstein et al.,2017; Degenais, Trico, & Haldeman, 2010; Kreiner et al., 2020; Koes et al., 2010; Olivera et al., 2018), including guidelines developed specifically for New Zealand (Hoffman & Mac Vicar, 2009), are based on bio-psychosociocultural perspectives of the condition, and recommend approaches to patient care that reflect the interconnectedness of those elements. Despite questions remaining over whether approaches based on guidelines informed by bio-psychosociocultural perspectives are superior to other approaches (Ford et al., 2019; Ford et al., 2016; Fritz, Cleland & Brennan, 2007; Hahne et al., 2017), supporting people with musculoskeletal conditions from a bio-psychosociocultural perspective is a requirement when practicing physiotherapy in New Zealand (New Zealand Physiotherapy Board, 2018; Physiotherapy Board of New Zealand, 2024))). It is also a requirement when providing physiotherapy services to ACC back injury claimants (ACC 1999). However, notwithstanding these requirements, there is currently no consensus on what supporting people from a bio-psychosociocultural perspective includes, and limited information to guide physiotherapists on how to support people with back pain from this perspective (Cormack et al., 2022; Dalusio-King & Hebron, 2022; Ng et al., 2021).

Additionally, little is known about whether or not physiotherapists supporting people to manage their back pain in private practice in New Zealand do this from a bio-psychosociocultural perspective, or of the challenges and barriers they experience when they attempt to do so. Hill et al., (2020) and Gray and Howe (2013) observed that physiotherapists in New Zealand recognise the importance of screening and assessing psychosociocultural risk factors when people have back pain, but these studies did not explore barriers to therapists implementing bio-psychosociocultural approaches in their practice. Similarly, Hendricks et al. (2013) observed that physiotherapists were aware of, and broadly provided advice consistent with bio-psychosociocultural informed practice guidelines, but their self-reported clinical practice suggested few, if any, of the therapists surveyed practiced from a bio-psychosociocultural perspective. This study could suggest that there are barriers to physiotherapists adopting bio-psychosociocultural approaches in New Zealand, and that therapists practicing in this health setting are not comfortable when people reveal their psychosociocultural dimensions. Hendricks et al. did not seek to understand or identify barriers to the physiotherapists surveyed supporting their patients from a bio-psychosociocultural perspective in this health setting.

Insights from studies overseas

Internationally, studies have provided some insight into factors that impede the implementation of bio-psychosociocultural approaches by physiotherapists (Cowell et al., 2018; Gervais-Hupé et al., 2023; Ng et al., 2021; Sanders et al., 2013; Singla et al., 2015; van Dijk et al., 2023). Ng et al.'s (2021) systematic review and qualitative evidence synthesis for example, explored barriers and enablers influencing the adoption of bio-psychosociocultural approaches by health care professionals. This review identified a wide range of factors impacting the implementation of bio-psychosociocultural approaches by health care professionals including: a) knowledge of how to identify and manage psychosociocultural factors; b) personal beliefs and condition orientation (biomedical or bio-psychosociocultural); c) beliefs about scope of practice and the adequacies of their training to implement bio-psychosociocultural approaches; d) perceptions about the complexity of their patients bio-psychosociocultural domains; and e) difficulties they experience navigating relationships with patients when the patient's care preferences and expectations were based on a biomedical orientation~~.~~

Notwithstanding their awareness of the contents of bio-psychosociocultural informed practice guidelines, health care professionals, including physiotherapists, prefer to individualise their approaches to patient care based on their own experiences and condition beliefs (Cote et al., 2009; Davies et al., 2012; Elvin & Dean, 2017; Gardener et al., 2017; Parr & May, 2014). Parr and May (2014) for example, observed that physiotherapists supporting people with musculoskeletal conditions in the United Kingdom, including people with back pain, did not believe that guidelines were practical or relevant to their practice context. Reliance on these types of decision-making practices, however, appear to lead to variable and disparate physiotherapy management practices (Davies et al., 2012; Mafi et al., 2013). They also result in less cost-effective approaches to patient care (Hanney et al., 2016; Howard-Wilsher et al., 2016; Ivanova et al., 2011). It is unclear whether the observations in these studies are also representative of therapist practices and barriers to supporting people from a bio-psychosociocultural perspective in private physiotherapy practice in New Zealand.

Studies internationally have also observed that the relationship and communication between patients and physiotherapists is an important contextual factor influencing interactions and the implementation of bio-psychosociocultural approaches in physiotherapy practice (Elvin & Dean, 2017; Hall et al., 2010; Ng et al., 2021; O'Keefe et al., 2016; Kinney et al., 2020). Supporting people to manage their condition from a bio-psychosociocultural perspective requires more than following practice guideline~~s~~ and implementing approaches that reflects the individual bio-psychosociocultural factors contributing to peoples' presentations (Cormack et al., 2022; Dalusio-King & Hebron, 2022). Bio-psychosociocultural approaches also require a framework of effective interpersonal communication and a strong therapeutic alliance (Cormack et al., 2022; Dalusio-King & Hebron, 2022; Mescouto,, 2022a; Stilwell & Harman, 2019). Physiotherapists, however, often find it difficult to navigate relationship challenges and develop the relational context within which to support their patients from a bio-psychosociocultural perspective in clinical practice (Cowell et al., 2018; Gervais-Hupé et al., 2023; Ng et al., 2021; Sanders et al., 2013; Singla et al., 2015; van Dijk et al., 2023).

Therapeutic relationships and decisions about approaches to patient care in physiotherapy practice can be influenced by therapist perceptions about their patient's personal characteristics and psychosociocultural context, and also by whether they feel they have the interpersonal relational skills needed to successfully support their patients psychosociocultural needs (Elven & Dean, 2017; Ng et al., 2021; Sanders et al., 2013; Singla et al., 2015; Synott et al., 2015; Slade et al., 2016). The approaches physiotherapists take have also been shown to be influenced by the patients' condition beliefs and care preferences (Cowell et al., 2018; O'Keefe et al., 2016; Sanders et al., 2013; Singla et al., 2015). Relational and inter-personal communication factors are also important to patient outcomes as patient responses to interventions are positively or negatively modulated by the contextual constructs of the patient-therapist relationship (Ferreira et al., 2013; Hall et al., 2010; Kinney et al., 2020; Miciak et al., 2012; Rossettini, et al., 2020a). Lambert and Barley (2001) for example, observed that the quality of the therapeutic alliance accounts for a greater proportion of the variance in treatment outcomes than any other factor. It remains to be shown whether relationship factors are also important influences impacting therapist practises in New Zealand.

Summary of background and context to my study

Back pain related disability and the associated cost on the health care system is a significant health problem in New Zealand. Physiotherapists working in private practices supporting ACC claimants and other people with back pain, play an important role in in this health context. Hence, they are strongly positioned to play an influential role in people's outcomes. However, little is known about their practises or factors influencing their interactions with people who have the condition. Similarly, although supporting people to manage their conditions from a bio-psychosociocultural perspective is a requirement to practice physiotherapy in New Zealand, little is known about whether therapists in New Zealand are comfortable implementing these approaches, or barriers to supporting people with back pain from this perspective. Understanding more about things that influence interactions between physiotherapists and people with the condition could improve understandings of how to improve consultation experiences for both therapists and their patients. It could also help inform strategies to support the implementation of bio-psychosociocultural approaches to patient care in the private physiotherapy practice setting in New Zealand. Identifying and recommending ways to improve interactions and support people from a bio-psychosociocultural perspective and implementing those recommendations in clinical practice could also improve outcomes for people with back pain who consult with a physiotherapist.

Part Two: Research in the New Zealand health setting

Performing research in this health setting is important because of the context in which private physiotherapy practices operate in New Zealand. In other countries, it has been observed that the behaviour of health care professionals is influenced by the policies, funding priorities, and service reimbursement structures of the context in which they operate (Indrakanti et al., 2012; Lin et al., 2011; Ng et al., 2021; Sloan & Walsh, 2010). Ng et al. (2021) for example, observed that the way the health system is organised, health system policies, and the criteria for rehabilitation and compensation from third party insurance providers, are important factors that influence the implementation of bio-psychosociocultural approaches in health care practice. These health system factors positively or negatively influence the practises of health professionals, including physiotherapists (Ng et al., 2021). This might also be the case in New Zealand where the health system provides physiotherapy services through a mix of public and private (both for-profit and not-for-profit) channels (Ashton, et al., 2005; Ashton, 2015; Chalmers, et al., 2017). Within this system, physiotherapy services for back pain can be accessed and funded privately, accessed privately and partly or fully funded under the ACC Scheme, or accessed and funded fully through public health care organisations operating as part of New Zealand's public health system.

Physiotherapy and the Accident Compensation Scheme

When back pain is accident-related, the ACC Scheme offers pathways for compensation and a wide range of rehabilitation services. The Scheme is set up under the Injury Prevention Rehabilitation and Compensation Act 2001 ("IPRCA 2001") and funded by contributions from the New Zealand Government, taxes on employers and employees, and levies on motor vehicle licencing and fuel (ACC Statement of Intent 2015-2019; Tennant, 2014). The Scheme's legislative directives implicitly focus on the requirements of accident causation, structural pathoanatomical diagnosis, and diagnostic-treatment-curative care pathways (Sections 25, and 26, IPRCA 2001; Stewart & Haswell, 2007). If people satisfy the requirements for cover, they become eligible for: a) compensation and vocational rehabilitation services if they were employed at the time of their injury; b) care and support services if they lose their independence; and c) a comprehensive range of injury related rehabilitation services (ACC Statement of Intent 2015-2019; Tennant, 2014).

Physiotherapy services can be accessed under the ACC Scheme through private physiotherapy providers who provide contracted services to ACC. Depending on the nature of the condition and whether ACC criteria are satisfied, services can be either fully funded, or partly funded with many practices charging ACC claimants an additional surcharge to make up the shortfall between ACC's contribution and the actual cost of their service. For example, people who are employed at the time of their injury can access fully funded rehabilitation programmes as part of ACC's Vocational Rehabilitation suite of services. This includes comprehensive physiotherapy rehabilitation and occupational workplace interventions. Similarly, people who meet the requirements for ACC's Pain Management Services may be eligible to access fully funded multi-disciplinary rehabilitation programmes that include the specialised services of multi-disciplinary health care professionals including physiotherapists, psychologists, pain medicine specialists, and other allied health professionals.

The range and availability of services ACC claimants are eligible for compares favourably against the services that are available to people who have non-accident-related conditions (Ashton, 2015; Chalmers, et al., 2017; Duncan, 2008). People with non-accident-related back pain who are unable to fund their care privately, must rely on the public services arm of New Zealand's health care system (Ashton, 2015; Chalmers, et al., 2017; Duncan, 2008). There are similarities between the physiotherapy services public health care organisations offer and those that are available to ACC claimants. However, due to limitations in their funding, demand, and capacity to deliver services, public health organisations cannot provide the same comprehensive range of physiotherapy services that are available to ACC claimants. Many public health care organisations in the Auckland region for instance, recommend people with non-accident-related back pain access physiotherapy services from private providers, irrespective of their ability to contribute to the costs of their care (M. Hames, ADHB, personal communication, September 1, 2017; L. Ford, CMDHB, personal communication, August 11, 2017; S. Russell, WDHB, personal communication, July 28, 2017).

The range of other entitlements people who have ACC cover are eligible for, also compares favourably against what people can access when their conditions are not accident related (Duncan, 2008; Lunt, 2009). For instance, people who are employed when they suffer an accident-related injury, are able to access non-means tested compensation in the form of weekly payments of up to 80% of their pre-injury income (Duncan 2008). This compares favourably against means tested disability allowances and sickness benefits that New Zealanders receive if they are unable to work as a result of a non-accident-related health condition (Lunt, 2009). Although it is unclear how the inequities that are associated with the dichotomies of the New Zealand health system impact people's health or socio-economic outcomes, research performed in New Zealand has observed that it is advantageous for people with health conditions to be covered by the ACC Scheme (Cornwall et al., 2015; McAllister et al., 2013; Melloh et al., 2015; Montgomery et al., 2015). Melloh et al. (2015), for example, observed that people on a sickness benefit who experienced non-accident-related back pain had poorer outcomes than people on a sickness benefit who were eligible for ACC cover and assistance. The desirability of obtaining ACC cover to fund physiotherapy rehabilitation, and access earnings related compensation, could be an important factor influencing patient-therapist interactions.

The financial benefits to physiotherapists and the nature of their contractual arrangements with ACC could also play an important role during consultations. Several authors have noted that the ACC Scheme is an important source of income for private physiotherapy providers (Nicholls, et al., 2005; Nicholls, et al., 2009; Reid & Larmer, 2007; Stewart & Haswell, 2007). Reimbursements are provided under a mix of purchaser-provider fees for service arrangements (the Physiotherapy Services Contract - Regulations), and contracts that are tendered and awarded to preferred providers with global capitation payment structures (e.g. Vocational Rehabilitation Services, Pain Management Services, Training for Independence, Escalated Care Pathways). Both types of arrangements have implications for physiotherapy service providers and potentially influence the way they support and interact with their patients. For instance, the main agreement between the majority of private physiotherapy providers and ACC (the Physiotherapy Services Contract-Regulations) is a purchaser-provider fee for services contract. Under this arrangement, ACC a) caps the amount of reimbursement physiotherapists receive for their services; b) limits the number of treatment sessions physiotherapists can provide; and c) imposes requirements on the types of interventions physiotherapists can provide (Accident Compensation (Liability to Pay to Contribute to Cost of Treatment Regulations) 2003; Section 6, IPRA 2001; IPRCA 2001 Schedule 1 Clause 2). It has been suggested that this arrangement rewards providers for the number of times they see their patients rather than for the quality of their care or clinical outcomes (Reid & Larmer, 2007; Stewart & Haswell, 2007). The nature of this reimbursement structure could, therefore, be an important influence on patient-therapist interactions and the types of approaches physiotherapists adopt when supporting their patients.

Other contracts for specialised physiotherapy services (Vocational Rehabilitation Services, Pain Management Services, Training for Independence; Escalated Care Pathways) with payment structures characterised by global capitation, could also influence patient-therapist interactions and therapist behaviours. Lavoie, et al. (2010) for instance suggested that the operational aspects of these types of contractual arrangements reward providers for their efficiency rather than the quality of their care. In return for being recognised as preferred providers and receiving a global capitation payment, providers agree to operate under the burden of highly demanding output measures, rigorous contract monitoring, onerous reporting requirements, and generally, have higher system administration costs than are imposed on other types of service arrangements (Lavoie et al., 2010). Providers therefore assume a larger portion of the burden associated with aligning their service provision with their patients' expectations (Lavoie et al., 2010). In reality, under these types of arrangements theoretical boundaries between optimal care, patient expectations, and the operational requirements of the contractual arrangement clash, and providers are called upon to provide services beyond the scope of the contractual agreement and global capitation fee structure (Boulton; 2007). Lane (2001) refers to this as the harnessing of community goodwill and defines this as the providers willingness to go beyond their contractual obligations to ensure people receive appropriate care. However, this burden places a considerable strain on service providers who are required to treat complex conditions bounded by both funding and/or time constraints (Boulton, 2007). Again, the financial desirability of obtaining these contracts, and their operational dynamics, could be important contextual factors influencing patient-therapist interactions and therapist practises.

Finally, physiotherapists are not the only party who may be influenced by the policies, funding arrangements, and service reimbursement structures of the ACC Scheme. How ACC applies the Scheme has important implications for the financial compensation, and range and nature of physiotherapy services for the patients themselves (Forster, Barraclough & Mijatov, 2017; State Services Commission: Review of the Accident Compensation Corporation, 2014). In my experience, many patients are aware of the benefits associated with eligibility for ACC cover. They are also aware of the need to identify specific incidents or accidents that cause their symptoms to access Scheme compensation and entitlements. This could lead to pressures on physiotherapists during consultations to validate accident causation and identify physical injuries to meet their patients' expectations for cover. This could also be a source of relationship tension when patients know they may be denied ACC cover if they cannot recall a specific incident or accident when a physical injury might have occurred. It could also be a potential source of conflict when there are difficulties or uncertainties with identifying the patho-anatomical causes of their symptoms. In these situations, the Schemes statutory directives, implicitly focusing on the requirements of accident causation, structural pathoanatomical diagnosis, and diagnostic-treatment-curative care pathways, could also be important aspect influencing patient-therapist interactions. These may also be potentially important barriers to supporting patients to manage their condition from a bio-psychosociocultural perspective in physiotherapy practice in New Zealand.

Part Three: Positionality: Why I undertook this research.

In any type of research, the researcher's personal and professional experiences play an important role in shaping the nature of the inquiry including the research question, and the methodology and methods of the research (Thorne et al., 2002). In some interpretivist-constructivist methodologies, the researcher's professional knowledge, and experiences are even embraced as a fundamental source of applied practice insight and provide the scaffold or framework for the inquiry (Thorne, 2016). In Chapter Four I reflect on my own personal and professional experiences and professional discipline perspectives to demonstrate self-reflexivity so the reader can recognise how those experiences and perspectives, potentially, influenced my research processes and findings. However, as part of my Introduction, it would also assist the reader to understand how my own experiences in clinical practice, mentoring post-graduate physiotherapists, and personal experiences of back pain and interactions with health care professionals, are also an important part of the background to and context of my study.

My interest in exploring this topic arose out of my experiences. Prior to my current role teaching under-graduate physiotherapy students, I was as a private physiotherapy practitioner for 18 years. During this time, I owned and operated several physiotherapy clinics that provided services to people for a range of musculoskeletal conditions. My patient base was varied, but despite many frustrations, I particularly enjoyed the challenges of working with people whose presentations were influenced by complex bio-psychosociocultural considerations. However, my interactions with these people were often associated with tensions and challenges. For instance, some people did not respond to my attempts to form a therapeutic relationship, and people with challenging personal characteristics or complex multi-dimensional bio-psychosociocultural considerations often made me uncomfortable. On some occasions, my professional beliefs about the condition and preferences for management also conflicted with the beliefs and preferences of my patients. These conflicts caused tensions in my clinical relationships. During my time in practice, I often reflected on these challenges, and those reflections made me curious about how I could improve my patient interactions, and whether other therapists experienced the same challenges. I also realised that my own personal experiences were highly subjective, and that they needed to be confirmed by exploring the perspective and experiences of other physiotherapists.

Prior to my current teaching role, I had also been involved in professional physiotherapy education as a clinical educator for undergraduate and postgraduate physiotherapy students at Auckland University of Technology. During this time working with other practicing therapists furthering their professional education, I observed that non-evidence-based beliefs about back pain were prevalent, and that they also experienced challenges and insecurities when they interacted with their patients. I observed that many of these physiotherapists preferred to manage their patients from a biomedical perspective and were uncomfortable when people revealed their emotional and psychosociocultural needs. Many of the therapists I worked with did not believe their professional training had adequately prepared them for these challenges.

These experiences gave further cause for me to reflect on my own undergraduate and postgraduate professional training experiences. I completed my undergraduate physiotherapy training at Auckland University of Technology in 2003 and my postgraduate training in 2013. Much has changed in physiotherapy education during and since that time. My perception, however, was that my educational experiences had placed biomedical understandings of the condition at the forefront of my professional knowledge. Potentially, my educational experiences could be important factors that influenced my patient-therapist interactions and practices. These reflections, again, made me curious about whether identifying other therapists' perceptions of influences during patient-therapist interactions could help identify ways to improve physiotherapy education, and provide physiotherapists with the skills they perceive they need to navigate the challenges of physiotherapy practice and confidently implement bio-psychosociocultural approaches to patient care.

Finally, my personal interest in carrying out research into patient-therapist interactions also resulted from my own experiences with back pain and interactions with health care professionals including physiotherapists. I have had recurrent back pain for over 35-years and my experiences of the condition, my personal beliefs about the way symptoms should be managed, and my own experiences of tensions with health care providers, played an important role in the way I approached interactions with patients and managed the condition in my practice. Tension often existed in my clinical practices between my own beliefs about how my own symptoms should be managed, and my professional knowledge. On many occasions I experienced cognitive dissonance between my personal experiential beliefs and my clinical practice. These reflections again, gave me cause to reflect on the importance of recognising the contribution my own personal experiences made to my interactions with patients, and my clinical practices. I was, therefore, also curious about whether other physiotherapists reflected on and recognised the influence of their own personal experiences and beliefs on their clinical relationships and behaviours.

Part Four: Objectives and methodology

Objectives

1. The primary purpose of my research was to explore the experiences of physiotherapists supporting people to manage their back pain in private physiotherapy practice to describe perceived influences on patient-interactions that potentially impact their practises.
2. The secondary objective was to provide new insights into barriers to physiotherapists supporting people with back pain from a bio-psychosociocultural perspective in this health setting.

Methodology

I performed my inquiry using Interpretive Description. I chose Interpretive Description because its epistemological assumptions resonated with my research aims. Interpretive Description has been developed to answer questions derived from the field of applied health practice with the aim of identifying findings that help improve the applied practices of health care professionals (Hunt, 2009; Thompson-Burdine, Thorne & Sandhu, 2021). This resonated with my aims because my question originated from my own experiences in clinical practice, and I hoped that my findings would help to develop knowledge that would lead to improvements in physiotherapy practice, and potentially, the outcomes of people who seek support from a physiotherapist. I also chose Interpretive Description because the methodology did not attempt to limit the influence of my own experiential knowledge. Interpretive Description recognises and values the researcher's knowledge and experiences and allows the researcher to use those insights as a tool to explore and identify patterns among other people's experiences (Hunt, 2009; Thompson-Burdine, et al., 2021). Interpretive Description also recognises that peoples' experiences in health are a subjective construction that reflects the time and context in which they take place (Hunt, 2009; Thompson-Burdine, et al., 2021). In my own practice experiences, a wide range of interconnected factors had influenced my interactions and clinical practises, and I therefore, considered it important that my chosen methodology would allow this subjective complexity to be reflected in my findings.

Part Five: Defining key terms

To assist in the reading of this thesis, the terms low back pain, back pain, person/people with back pain, patient, participants, physiotherapist, and therapist are defined as follows:

Low back pain or back pain

The terms low back pain or back pain are used interchangeably depending on the context of the discussion. The standardised definition of back pain proposed by Dionne et al. (2008) is adopted and included conditions where symptoms are experienced in the region of the lumbar spine, regardless of stage, severity, or duration. It also includes conditions where symptoms are also experienced in gluteal region (symptoms experienced between T12 superiorly and the gluteal folds distally) and the source of the symptoms is the lumbar spine. Back pain could be of nociceptive or neuropathic origin, and also include conditions where pain experienced in the lumbar region is associated with symptoms in the lower extremities i.e. somatic referred pain and/or radicular pain (Bogduk, 2009; Dionne et al., 2008). Back pain does not include conditions of the cervical or thoracic spine (Dionne et al., 2008).

Person/people with back pain or patient

The terms person/people with back pain and patient are used interchangeably depending on the context of the discussion to describe people with low back pain. The terms patient or patients are preferred if I want to highlight the relationship between the physiotherapist and the person with the condition, whereas the terms person with back pain or people with back pain are used when the context of the discussion is describing the individual who has the condition or is experiencing symptoms.

Participants, physiotherapist, therapist

The terms participant or participants are used to describe a physiotherapist or the sample of physiotherapists who participated in my research, or physiotherapists who participated in other studies depending on the context of the discussion. The terms physiotherapist and therapist are also used interchangeably throughout my thesis. These terms mean a person who is a registered health care professionals practicing in the area of physical therapy or physiotherapy.

Interpretivist-constructivist research, qualitative research

The terms interpretivist-constructivist research and qualitative research are used interchangeably throughout my thesis. They are used to describe research that has its grounding in, and draws from the philosophical and epistemological assumptions, and methodological traditions of the interpretivist-constructivist research paradigm (Davies & Fischer, 2018; Rehman et al., 2016)

Positivist research methodologies, quantitative research

The terms positivist research and quantitative research are used interchangeably throughout my thesis. They are used to describe research that has its grounding in, and draw from the philosophical and epistemological assumptions, and methodological traditions of the positivist research paradigm. (Davies & Fischer, 2018; Rehman & Alharthi, 2016)

Bio-psychosociocultural

Where the word bio-psychosociocultural is used in text, it refers to Engel’s (1977) holistic or humanistic conceptual framework of health as the interaction of biological, psychological, and sociocultural dimensions. Bio-psychosociocultural approaches to care refer to approaches that reflect the interconnectedness of the biological, psychological, and sociocultural dimensions that contribute to health, within a framework of effective interpersonal communication and a therapeutic alliance (as described in Dalusio-King and Hebron’s (2022) evolutionary analysis of bio-psychosociocultural approaches to patient care in physiotherapy practice).

Biomedical

Where the word biomedical is used in text, it refers to a positivist conceptual framework of health that approaches health from a reductionist and Cartesian Dualist perspective. This perspective separates the biological causes of health from other dimensions. Biomedical approaches to care refer to approaches that emphasise the importance of diagnosing and correcting the biological or physical causes of health (as described by Jones, Edwards, and Gifford, 2002).

Chapter Two – The literature review

Research inquiries, including those carried out using the Interpretive Description methodology, are grounded within an existing body of knowledge so that the research findings can be *"… constructed based on thoughtful linkages to the work of others in the field…"* (Thorne et al., 1997, p173). The scaffold of a literature review assists the researcher to understand what is already known, the limitations of the existing knowledge, and the types of methodologies and methods that have been used by previous researchers to explore a phenomenon of interest (Thorne, 2016). The first step in my research, therefore, was to perform a literature review to identify and appraise studies that have previously explored factors influencing interactions between people with back pain and physiotherapists that potentially impact therapist practices. These studies might also provide insights into barriers to physiotherapists supporting people with back pain from a bio-psychosociocultural in physiotherapy practice. Synthesising and reviewing the findings and methodologies of these studies would: a) form an important part of the fore structure for my own inquiry; b) help me to make decisions about the methodology and methods for my own research; and c) become part of the frame of reference for my analysis. This Chapter, therefore, describes the processes and findings of the literature review I performed.

The objective of this chapter is to describe the literature review I performed to identify and synthesise the findings of studies that have explored factors influencing interactions between people with back pain and physiotherapists. These studies might also provide insights into barriers to physiotherapists supporting people with back pain from a bio-psychosociocultural perspective in physiotherapy practice. The strengths and limitations of methodologies used in previous research are also explored.

This chapter is presented in four parts. Part One describes my literature review methodology and methods. Part Two describes the studies included in my review and interpretive synthesis of their findings. Part Three critically discusses the limitations of the studies included. It also contains a critical reflection on the limitations and strengths of the methods of my literature search and review. Part Four provides a brief summary of the implications of my review findings for the methodology and methods of my own research.

Part One: Methodology and methods

Narrative review was selected as the literature review methodology. I selected this methodology because it was consistent with the epistemological assumptions of Interpretive Description.

Narrative reviews are aligned with the interpretivist-constructivist paradigm and as with an Interpretive Description inquiry, the narrative review methodology enables the literature search and analysis to proceed simultaneously as an interpretive pursuit (Greenhalgh et al., 2018; Sukhera, 2022). Narrative reviews are also consistent with the epistemological foundations of Interpretive Description because they are founded on the premise that reality is subjective, and that the perspectives and experiences of the researcher shape all aspects of the inquiry, including the search methods, selection of studies that are included, and interpretation of the findings of the studies that are included (Booth, 2016; Greenhalgh et al., 2018; Sukhera, 2022). Although narrative reviews are often criticised for their lack of transparency, and clearly defined procedural standards against which to evaluate the search methods, when the purpose of a review is to identify and synthesise studies that have used different research methodologies, narrative reviews are considered a flexible and pragmatic way to synthesise study findings to inform and provide a scaffold for future inquiries (Booth, 2019; Dixon-Woods et al., 2005; Greenhalgh, et al., 2018; Sukhera, 2022). Notwithstanding the absence of clearly defined procedural standards for narrative reviews, I used the ENTREQ ("Enhancing Transparency in Reporting the synthesis of Qualitative Research") draft statement to guide my search methods and reporting of the steps I took to perform my literature review (Tong et al., 2012).

In March-April 2018 a reflexive and recursive search was carried out in electronic databases subscribed to by the Auckland University of Technology library. The following health research related databases were searched individually and together via the University's EBSCO search engine: MEDLINE via PubMed; CINAHL (Cumulative Index to Nursing and Allied Health Literature; AMED (Allied and Complementary Medicine Database); The Cochrane Controlled Trials Register in the Cochrane Library; PEDro (Physiotherapy Evidence Database; and ProQuest 5000 International. To identify studies that were not indexed in these mainstream databases, supplementary search strategies included using the related articles option in PubMed, searching on Google Scholar including using the search within cited articles feature, and reviewing reference lists in studies that were identified in the initial search strategy. Between May 2018 and June 2023, further searches were periodically performed using the same search strategy to ensure studies published after the initial search had been completed were also identified.

A reflexive and recursive search strategy in keeping with the realist approach described by Booth (2020) was used during the searches. Rather than attempting to comprehensively identify all studies or identify a sample with statistical representativeness, searching was approached systematically and iteratively to identify studies with characteristics relevant to my area of intertest until a point of theoretical saturation had been reached (Booth, 2020; Booth, 2016). Searching, sampling and analysis were mutually informative and proceeded simultaneously. Using the realist approach, searching attempted to identify studies that explored influences on interactions between people with back pain and physiotherapists that potentially impact therapist practices. I also searched for studies that provided insights into challenges and barriers physiotherapists experience implementing bio-psychosociocultural approaches with people with back pain. My search strategy was therefore treated as a compass rather than an anchor (Dixon-Woods et al., 2006). Both systematic and iterative approaches guided the search process including search terms and phrases, and supplementary search strategies (Booth, 2020; Booth, 2016; Dixon-Woods et al., 2006).

The search commenced using Boolean search terms derived from a modified population, intervention, comparison, outcome ("PICO") approach specifying New Zealand physiotherapists supporting people with back pain as the population, and factors that influence interactions and the clinical practices of physiotherapists as the phenomenon of interest (Davies, 2011). The initial Boolean search terms are set out in Table 1.

Table 1. Initial PICO Boolean search terms and phrases

New Zealand
AND
Physiotherapist OR *Physiotherapy* OR *Physical Therapist* OR *Health Care Practitioner*
AND
People with Back Pain OR *Low Back Pain* OR *Lower Back Pain* OR *Spinal Pain*
AND
Influences
AND/OR
Interactions OR *Clinical Practices* AND *Management Approaches* OR *Decision-Making*
AND/OR
Quantitative OR *Qualitative* OR *Review*

During the initial searches, New Zealand physiotherapists and people with back pain were specified as the populations of interest. Booth (2016) suggests an optimal initial search strategy defines the population of interest and combines this with the phenomenon of interest using specific free-text terms, broad term, and thesaurus terms. This optimises search sensitivity and specificity across a broad range of databases (Booth, 2016). However, specifying New Zealand physiotherapists supporting people with back pain as the population of interest returned only one study (Hendricks et al., 2013). It was therefore necessary to modify the population of interest by removing the requirement that studies had to be performed in the New Zealand health setting.

The initial search filters applied included searching for related words, full text, or abstracts of articles, searching within the full text of articles, and searching for literature with or without a full reference list. In keeping with the hybrid approach, the titles and abstracts of literature identified during the search were screened for relevance to the review and also to assist in identifying information that would help to evolve the search strategy. Reference lists of retrieved articles were also screened for relevant literature. During the process of searching and screening abstracts, the search words and phrases evolved rather than remaining fixed to the initial Boolean terms and phrases. In this way, the search was not linear. It was a reflexive process that involved simultaneously searching, identifying materials with potential relevance, and refining the search strategy. Therefore, as the searching became more expansive, the strategy was continuously informed by emerging theoretical notions. Removing the requirement that studies involved New Zealand physiotherapists is an example of how the search strategy was modified during the search process to ensure an adequate sample of studies relevant to the research question was identified. The search was therefore considered a vehicle for both refining the research question and exploring the emergent research findings (Booth, 2020; Booth, 2016). Examples of search words and phrases that evolved iteratively during the search process are set out in Table 2.

Table 2. Examples of additional search words and phrases derived during the search.

New Zealand
AND/OR
Physiotherapist OR *Physiotherapy* OR *Physical Therapist* OR *Health Care Practitioner*
AND
Back Pain OR *Low Back Pain* OR *Lower Back Pain* OR *Spinal Pain*
AND
Influences
AND/OR
Interactions OR *Clinical Practices* AND *Management Approaches* OR *Decision-Making*
AND/OR
*Clinica*l AND *Reasoning* OR *Encounters*
AND/OR
Experiences AND/OR *Attitudes* AND/OR *Beliefs* AND/OR *Treatment Orientation*
AND/OR
Biomedical AND/OR *Biopsychosocial*
AND/OR
Evidence Based Guidelines
AND/OR
Expectations AND *Physiotherapist* OR *Physical Therapist* OR *Health Care Practitioner* OR *Patient* OR *Client*

Studies from any country or health setting were considered eligible for inclusion in the review if they offered potential insights into the explored factors influencing interactions between people with back pain and physiotherapists that potentially impact therapist practices, and that also, may be barriers to the adoption of bio-psychosociocultural approaches in physiotherapy practice and were published in English in a scientific publication. No limitations were imposed on the year of publication or on the type of methodology used in the research.

Following the guidance provided by Thomas and Harden (2008) my initial search continued until searching failed to return new studies, and the range of concepts I had identified in the literature, their context, and whether they agreed or not, were unlikely to change if I identified more studies. At that point, I considered that continuing to search for more studies would result in increasingly diminished returns. The search had been sufficiently thorough and rigorous to identify an adequate sample of studies with relevance and variation to enhance the information power of my analysis (Malterud, Siersma & Guassora, 2021). As noted, following the initial search, I also continued to perform additional searches between May 2018 and June 2023 using the same process to capture studies published after my initial search had been completed. These searches were also continued until searching failed to return new studies.

The primary purpose of my review was to identify and synthesise the findings from studies using any methodology to identify what was known about factors influencing patient-therapist interactions and impacting therapist practices. For studies that I considered eligible for inclusion, the aim, methodology, analytical methods, and key findings related to the purpose of the review were identified and abstracted. Using narrative juxtaposition*,* the information I abstracted was discussed side by side, and findings interpreted in the context of other research relevant to the research question (Dixon-Woods et al., 2005). Consistent with the aims of a narrative review, the objective of my synthesis was to describe and interpret the findings from the studies included in the review and develop concepts and theories that would inform the framework for my own inquiry and interpretive analysis (Booth, 2020; Carroll & Booth, 2015; Dixon-Woods et al., 2005; Greenhalgh, et al., 2018; Sukhera, 2022; Thorne, 2016). My narrative review, therefore, contains elements of description and interpretation and provides an overview of the literature included. I did not set out to draw upon evidence from multiple study designs to answer specific questions, or critically appraise studies to assess the quality or adequacy of their methods.

Part Two: Studies included and synthesis of findings

Fourteen studies offering insight into explored factors influencing interactions between people with back pain and physiotherapists that potentially impact therapist practices were included in my review (Alsheri et al., 2020; Christe et al., 2021; Daykin & Richardson, 2004; Dergharzarian & Simmonds, 2011; Hendricks et al., 2013; Houben et al., 2005; Jefferey & Foster, 2012; Josephson, Bulow & Hedberg, 2011; Josephson, Hedberg & Bulow, 2013; Linton, Vlaeyan & Ostelo, 2002; Martin-Perez et al., 2022; Pincus, Greenwood & McHarg, 2011; Poitras et al., 2012; Simmonds, Derghazarian & Vlaeyan, 2012). I considered these studies might also provide insights into barriers to physiotherapists supporting people with back pain from a bio-psychosociocultural perspective. Eleven of the studies directly explored factors that potentially impact therapist practice, including the attitudes, beliefs, and condition orientation of physiotherapists (Alsheri et al., 2020; Christe et al., 2021; Daykin & Richardson, 2004; Houben et al., 2005; Jefferey & Foster, 2012; Josephson et al., 2011; Josephson et al., 2013; Linton, et al., 2002; Martin-Perez et al., 2022; Pincus, et al., 2011; Simmonds et al., 2012). The other three studies explored therapist knowledge of and beliefs about the use of clinical guidelines and were included in my review because they offered potentially important insights into influences that may also be barriers to supporting people with back pain from a bio-psychosociocultural perspective in physiotherapy practice (Dergharzarian et al., 2011 Hendricks et al., Poitras et al., 2012). Of the fourteen studies included, only Hendricks et al. (2013) was performed in New Zealand.

Positivist methodological studies

Research into physiotherapy theory and the practises of physiotherapists have traditionally been performed using positivist methodologies (Nicholls & Gibson, 2010; Reid, 2014). Not surprisingly then, nine of the studies included in the review used quantitative approaches (Alsheri et al., 2020; Christe et al., 2021; Dergharzarian et al., 2011 Hendricks et al., 2013; Houben et al., 2005; Linton et al., 2002; Martin-Perez et al., 2022; Pincus et al., 2011; Simmonds et al., 2012). A summary of the aims of these studies, their methodologies and methods of analysis, and key findings, is provided in Table 3. Seven of these studies explored relationships between the attitudes, beliefs, or treatment orientations of physiotherapists and their clinical practises (Alsheri et al., 2020; Christe et al., 2021; Houben et al., 2005; Linton et al., 2002; Martin-Perez et al., 2022; Pincus et al., 2011; Simmonds et al., 2012). The other two studies examined therapists' knowledge of and beliefs about the use of guidelines for the management of patients with back pain in clinical practice (Dergharzarian et al., 2011 Hendricks et al., 2013).

Table 3. Summary positivist methodological studies

Author/Study	Aim	Methodology/Methods	Key Finding(s)
Hendricks et al., 2013	*Investigate* the extent to which physiotherapists adhere to evidence-based guidelines for the management of people with non-specific low back pain, and *identify* factors that influence the use of guidelines to inform clinical decisions	Cross sectional online survey gathering: • demographic information • information about management strategies commonly used. • advice commonly provided in relation to work, activity, and bed rest. • the PABS* questionnaire • participant responses to questions identifying awareness of, adherence to, and perceived helpfulness of guidelines in decisions for non-specific back pain. Data analysis: • descriptive statistics • bivariate and multiple logistic regression analysis to measure factors which predict guidelines being helpful in decisions for management of people with non-specific low back pain	Physiotherapists: • self-report providing advice about work, activity, and bed rest that is broadly in line with guideline recommendations. • are more likely to believe that guidelines are helpful to inform decisions for people with non-specific low back pain when they have a lower bio-medical orientation score (univariate and multivariate association) or if they have a high low back pain case load and post-graduate qualifications (univariate associations) • believe in the importance of using guidelines, but there are differences between self-reported beliefs and the behaviours they reported about their clinical practice
Derghazarian & Simmonds, 2011	*Examine* physiotherapists attitudes and beliefs about low back pain, their use of evidence-based guidelines for low back pain, and *analyse* extent to which their advice and treatment conforms with the guidelines	Cross sectional on-line survey gathering: • demographic information • the PABS-PT* and ABPS-mp* questionnaires • participant responses to questions identifying their assessment and treatment recommendations for people with moderate or low risk back pain as described in two vignettes. Data analysis: • descriptive statistics • Pearson correlational analysis and stepwise multiple linear analysis to measure attitudes and beliefs about back pain and knowledge of evidence-based guidelines, identify relationships between attitudes and beliefs and treatment recommendations, and evaluate whether assessment and treatment recommendations adhere to guidelines	Few physiotherapists reported they were aware of evidence-based guidelines. Physiotherapists with a higher bio-medical orientation scores were more likely to: • rate the severity of spinal pathology as higher. • disagree with guidelines-based management recommendations and advise patients to delay return to work and normal activity when they have back pain

Author/Study	Aim	Methodology/Methods	Key Finding(s)
Houben et al., 2005	*Evaluate* whether the PABS-PT differentiates between a biomedical and biopsychosocial treatment orientation in paramedical therapists, and whether treatment orientation is related to beliefs about the harmfulness of physical and work activities or treatment recommendations, for people with low back pain	Cross sectional postal and convenience survey gathering: • sociodemographic information • the PABS-PT, TSK*, and HC-PAIRS* questionnaires • the PHODA* questionnaire (rating the harmfulness of activities shown in photos for people with back pain) • participant responses to questions about severity of symptoms and pathology, and recommendations for physical activity and work levels, for people with low back pain described in three vignettes. Data analysis: • descriptive statistics • Pearson correlation co-efficient and regression analyses to measure whether treatment orientation predicts beliefs about the harmfulness of physical and work activities, or treatment recommendations	Therapists with higher bio-medical orientation scores are more likely to: • view physical activities as harmful. • recommend limits on performing physical activity and work
Linton, Vlaeyan & Ostelo 2002	*Examine* general practitioners and physical therapist's beliefs about low back pain, and *analyse* whether those beliefs are related to the issuing of disability certificates, or predict advice about pain management and activity recommendations for people with the condition	Cross sectional convenience survey gathering: • demographic information • participant responses to a 14-item questionnaire based on the TSK*, FABQ*, and HC-PAIRS to evaluate attitudes and beliefs about relationships between activity, pain, and injury for non-specific back pain, and self-report practice behaviours. Data analysis: • descriptive statistics • Mann-Whitney tests to identify gender belief differences, or differences between general practitioners and physical therapists. • Relative risk analysis to evaluate relationships between beliefs and self-reported practice behaviours	Fear avoidance beliefs are common amongst physical therapists with many providing advice that: • sick leave is a good treatment for back pain. • painful movements should be avoided. • a reduction in pain is a pre-requisite before returning to work. Higher levels of fear avoidance beliefs in physical therapists are associated with increased risk of: • certifying sick leave absences • providing non-evidence-based cautionary recommendations about work and activity • being more uncertain about identifying people at risk of developing persistent pain problems

Author/Study	Aim	Methodology/Methods	Key Finding(s)
Pincus, Greenwood & McHarg 2011	*Examine* the relationship between chiropractors, osteopaths, and physiotherapists beliefs about low back pain and work behaviours, and *evaluate* whether those beliefs are associated with their recommendations for work	Cross sectional postal survey questionnaire gathering: • demographic information • information about work-related behaviours including frequency of visiting patient's workplaces, giving sick leave certificates, recommending work absences, and providing exercises that could be incorporated into work routines. • the ABPS-mp questionnaire • participant responses to a 28-item questionnaire evaluating a range of work-related beliefs and the work recommendations that would be provided to people with back pain. Data analysis: • descriptive statistics • Spearman correlation co-efficient, Kruskal-Walis and Mann-Whitney tests, and factor analysis to examine relationships between beliefs about back pain and work-related beliefs, and between beliefs about work and self-reported clinical practice behaviours.	Most practitioners do not visit workplaces but prescribe exercises that could be performed at work and advise people to take a break from work during an episode of back pain. Compared to chiropractors and osteopaths, physiotherapists are more likely: • to visit people's workplaces • hold the belief that continuing work is beneficial. • prescribe exercises that can be performed at work. Physiotherapists are also less likely: • to provide sick leave certificates • believe that work is likely to exacerbate symptoms. Higher bio-medical orientation scores amongst all professions are associated with: • the belief that work is a threat and therefore not beneficial. • increased likelihood of recommending work absences and certifying sick leave

Author/Study	Aim	Methodology/Methods	Key Finding(s)
Simmonds, Derghazarian & Vlaeyen 2012	*Examine* the knowledge, attitudes, and beliefs of physiotherapists about low back pain, and their intolerance of uncertainty, to *evaluate* whether either attitudes or beliefs, or tolerance of uncertainty, predicts their treatment recommendations	Cross sectional online survey gathering: • demographic information • the PABS-PT, FPQ*, and IUS* questionnaires • participant responses to questions identifying their assessment judgment and treatment recommendations for people with moderate or low risk back pain described in two vignettes. Data analysis: • descriptive statistics • Pearson correlation coefficients to measure associations between measures of attitudes and beliefs and clinical decisions. • Multiple regression analysis to measure which characteristics predicted assessment and treatment recommendations. • Mediation analysis to measure whether the associations between level of comfort with uncertainty and treatment recommendations mediated by attitudes and beliefs	Physiotherapists with higher biomedical orientation scores are more likely to: • be uncomfortable with uncertainty. • rate the presence of spinal pathology as higher. • provide advice to delay a return to work or normal activity in the presence of back pain. Physiotherapists with a higher fear of pain score are also more likely to rate the presence of spinal pathology and disability as higher. Older or more experienced physiotherapists, or physiotherapists with post-graduate training in chronic pain management, are less likely to have high biomedical orientation scores and are more tolerant of uncertainty.
Alsheri, Alzahrani, Alotaibi, Alhowimel & Khoja 2020	*Investigate* the attitudes and beliefs of physiotherapists towards chronic low back pain, *identify* treatments used frequently in clinical practice, and *evaluate* whether attitudes and beliefs are associated with treatment selection	Cross sectional online survey gathering: • demographic information • PABS-PT questionnaire • Participant responses to 20-items questionnaire surveying treatment selection practices Data analysis: • Descriptive statistics • Pearson's correlation and multinomial logistic regression analysis to evaluate whether attitudes and beliefs are associated with treatment selection	Physiotherapists attitudes and beliefs to chronic back pain are associated with their treatment selections: • Therapists with higher biomedical belief scores are more likely to prescribe specific back exercises, electrotherapy, soft tissue massage, hydrotherapy, acupuncture, and lumbar supports. • Therapists with higher biopsychosocial belief scores are more likely to recommend cognitive functional therapy. Treatments not recommended by clinical practice guidelines continue to be commonly used in practice.

Author/Study	Aim	Methodology/Methods	Key Finding(s)
Christe, Nzamba, Desarzens, Leuba, Darlow, & Pichonnnaz 2021	*Examine* the attitudes and beliefs of physiotherapists about low back pain, and *analyse* whether relationship between beliefs and therapist characteristics, or between therapist beliefs and advice provided to patients	Cross sectional online survey gathering: - demographic information - Back-PAQ questionnaire - Participants responses to questions identifying their recommendations about activity, work, bed rest, and recommended treatments for person with acute back pain described in clinical vignette. Data analysis: - Descriptive statistics - Spearman correlation co-efficient, independent t-tests, multiple regression analysis to examine relationships between therapist beliefs and individual demographic characteristics, or between therapist beliefs and advice provided to patients	Physiotherapists view back pain as a condition with special characteristics including nature of the pain, impact, and complexity. During an acute episode of back pain physiotherapists with higher biomedical orientation scores were more likely to: - Advise patients to avoid activity and adopt protective strategies during an acute episode of back pain. - Recommend passive rather than active treatment strategies. Physiotherapists who have less experienced, involved in physiotherapy education, do not currently have disabling back pain, or who specialise in musculoskeletal physiotherapy, were less likely to have high biomedical orientation score and unhelpful beliefs

Author/Study	Aim	Methodology/Methods	Key Finding(s)
Martin-Perez, Gonzalez, Acevedo, Barrera, Perez, Romero, Reina, Perez & Villafane 2022	*Describe* attitudes and beliefs of physiotherapists towards diagnosis and management of low back pain	Cross sectional online survey gathering: • Demographic information • PABS-PT questionnaire Data analysis: • Descriptive statistics	Physiotherapists hold evidence-based attitudes and beliefs about back pain including beliefs that: • Tissue damage and inflammation explain nociceptive pain. • Persistent pain is associated with psychosocial factors. • Imaging is not necessary to diagnose patients with back pain. • Performing exercise and activities that provoke pain is not unsafe during an episode of back pain. Physiotherapists also believe: • Relationships between issue damage and pain intensity, increases in pain and whether further damage occurs, and biomechanical stressors and back pain, are unclear. • Individualised therapy is the first line of treatment for back pain but should not be progressed if symptoms increase.

* PABS = Pain Attitudes and Beliefs Scale (Houben et al., 2005); PABS-PT = Pain Attitudes and Beliefs Scale – Physiotherapists (Ostelo et al., 2003); ABPS-mp = Attitudes to Back Pain Scale for musculoskeletal practitioners (Pincus et al., 2006); BBQ = Back Beliefs Questionnaire (Symonds et al., 1996); Back-PAQ = Back Pain Attitudes Questionnaire (Darlow et al., 2014); HC-PAIRS=Health Care Providers' Pain and Impairment Relationship Scale (Rainville et al., 1995); Photograph series of Daily Activities (Kugler et al., 1999); TSK = Tampa Scale of Kinesiophobia (Vlaeyan et al., 1995; FPQ = Fear of Pain Questionnaire (McNaeil & Rainwater, 1998); IUS = Intolerance of Uncertainty Scale (Freeston et al., 1994)

All of these studies used cross sectional surveys, and statistical analysis to identify factors that were associated with or predicted the clinical practises of physiotherapists. Linton et al. (2002) and Pincus et al. (2011) for example, performed cross-sectional surveys to measure the fear avoidance beliefs or attitudes to back pain of physiotherapists and used statistical analysis to identify whether an association existed between those attitudes and beliefs, and the advice therapists provided to their patients. Hendricks et al. (2013) on the other hand performed a cross-sectional survey to measure the extent to which physiotherapists adhere to low back pain clinical guidelines and identify factors that predict the use of guidelines by physiotherapists. Data was analysed using a combination of descriptive statistics, and bivariate and multiple logistic regression analysis. These types of approaches to identifying factors that potentially impact therapist practises were common in all of these studies.

Interpretivist-constructivist studies

Five studies included in the review used interpretivist-constructivist methodologies (Daykin & Richardson, 2004; Jefferey & Foster, 2012; Josephson et al., 2011; Josephson et al., 2013; Poitras et al., 2012). A summary of the aims of these studies, their methodologies and methods of analysis, and key findings, is provided in Table 4. Jeffery and Foster (2012) for instance, used hermeneutic phenomenology to explore how a therapist's personal experiences of back pain might influence their clinical decision-making practises. Daykin and Richardson (2005) used grounded theory to explore beliefs that therapists have about back pain and how this might influence their clinical decision-making practises. Josephson et al. (2013) used discourse analysis to explore how therapists talk about their treatment choices for people with back pain. In Josephson et al. (2011), the authors reanalysed the data using content analysis to explore what therapists believed they needed to know about people with back pain in order to make treatment decisions. Poitras et al. (2012) also used content analysis to explore barriers to physiotherapists using clinical guidelines in their practise. Studies that use different interpretivist-constructivist methodologies have potential to offer different kinds of insights into clinical practice from each other, and also from those performed using positivist methodologies.

Table 4. Summary of interpretivist-constructivist methodological studies

Author/Study	Aim	Methodology/Methods	Key finding(s)
Daykin & Richardson 2004	*Explore* physiotherapists pain beliefs and identify their influence on management practices for people with chronic low back pain	Grounded theory Semi-structured interviews to explore physiotherapists beliefs or perceptions about chronic low back pain, and observations of initial and follow up treatment sessions to observe dialogue and behaviours during therapeutic encounters. Data analysis: synthesis approach to grounded theory analysis from the theoretical standpoint that what a participant says in an interview has significance for them, and there is a relationship between what they say and the beliefs they hold (Glaser & Strauss (1967), Strauss & Corbin (1990), Charmaz (1995), Smith (1995))	When physiotherapists have bio-medical beliefs, this informs their clinical reasoning, condition attribution beliefs, and the explanations they provide to people. Physiotherapists also: • seek out bio-medical knowledge and skills to enhance their back pain treatment practices. • classify people as either a good or bad patient; bad patients expect passive treatment and experience worse clinical outcomes
Jeffrey & Foster 2012	*Understand* how physical therapists' personal experiences and feelings influence their decision making when treating people with non-specific low back pain	Phenomenological hermeneutics Semi-structured interviews using an open-ended question guide to explore physical therapists' recommendations for diagnostic investigations, work activity levels, and bed rest for a person for non-specific back described in a vignette. Further probes were used to explore the feelings, beliefs, attitudes, and experiences about treating people with non-specific back pain. Data analysis: the hermeneutic circle approach was used to interpret and analyse of the data and identify a deeper meaning of the experiences described in the narratives, and generate themes relating to physical therapist's experiences and feelings when treating people with back pain (Debesay et al., 2008)	Physical therapists: • believe back pain has a mechanical and recurring nature. • want to empower people with back pain to exercise and self-manage their pain and functional problems. • experience feelings of tension between the advice and treatment they feel is best, and the person's own attitudes, beliefs, and treatment expectations, • often modify their own beliefs and treatment expectations to avoid conflict

Author/Study	Aim	Methodology/Methods	Key finding(s)
Josephson, Bulow & Hedberg 2011	*Explore* what physiotherapists need to know about people with non-specific low back pain to make decisions about interventions	Content analysis Focus groups using an open-ended question guide to discuss a person with non-specific low back pain described in a vignette to facilitate discussion about what patient-related factors in terms of the ICF model* physiotherapists consider important when making decisions about treatment interventions. Data analysis: content analysis as described by Graneheim and Lundman (2004) to identify the manifest content of the discussions and generate themes to describe the body, activity, participation, and environmental factors physiotherapists consider important when making decisions about treatment interventions	Physiotherapists individualise their intervention decisions based on their classification of the complexity of the person and their presentation. Using the ICF model: • easy presentations are characterised by body function impairments that have a close relationship with specific body structures. • complex presentations are characterised by impairments in body function, mental functions, activity limitations, and participation restrictions. • very complex presentations are characterised by impairments in body function, activity limitations and participation restrictions, and contextual factors i.e. psychosocial factors, with care seeking behaviour a particular feature
Josephson, Hedberg & Bulow 2013	*Investigate* how physiotherapists talk about choice of interventions for people with non-specific low back pain, and manage challenging clinical encounters	Discourse analysis Focus groups using an open-ended question guide to discuss a person with non-specific low back pain described in a vignette to explore how physiotherapists talked about their choice of interventions, and managed challenging clinical encounters with people with back pain. Data analysis: discourse analysis approach involving exploring the discourse recorded in the transcripts as a social activity until it revealed "what people do" relating to the research question (Potter and Wetherell (1987) and Roberts and Sarangii (2005))	Physiotherapists talk about intervention choices for people with back pain as a problem-solving process that varies based on problem complexity. It involves discussing: • the person's own responsibilities in relation to their health, and the role of the physiotherapist • back pain as an ordinary medical condition and normal feature of life, and the normality of expectations for a quick fix • the importance of making changes to lifestyle or routines as part of the management of the condition • the need for the physiotherapist to individualise the intervention based on the people's own preferences, taking into consideration the physiotherapist's views.

Author/Study	Aim	Methodology/Methods	Key finding(s)
Poitras et al., 2012	*Identify* barriers described by GPs, occupational therapists, and physiotherapists to using evidence informed clinical management guidelines aimed at preventing low back pain disability, and identify areas of convergence and divergence between health professionals	Content analysis Semi-structured interviews using an interview guide based on the Theory of Planned Behaviour framework (Ajzens, 1988) to discuss two people with back pain described in vignettes and whether the practitioners would use evidence-based management guidelines aimed at preventing low back pain disability when making treatment recommendations. Data analysis: thematic content analysis as described by Miles and Huberman (1994) to identify barriers or facilitators to the use of guidelines aimed at preventing low back pain disability	Biomedical approaches limit the uptake of evidence-based clinical management guidelines for low back pain by physiotherapists. Physiotherapists believe that: • they are not adequately trained to manage psychosocial factors. • guidelines have limited application to clinical practice because of the lack of direction on biomedical/pathophysiological aspects of back pain. • most patients expect to be managed using a biomedical, not a biopsychosocial, approach. • guidelines are less appropriate if people are funding their treatment privately.

*ICF = International Classification of Functioning and Disability

Studies exploring factors influencing interactions between people with back pain and physiotherapists that potentially impact therapist practices.

Three qualitative studies directly explored factors influencing interactions between people with back pain and physiotherapists (Jefferey & Foster, 2012; Josephson et al., 2011; Josephson et al., 2013). Two studies used data from focus groups to explore what physiotherapists thought they needed to know to make decisions about interventions for individual patients, how they made individualised treatment decisions, and how they managed interactions with difficult patients (Josephson et al., 2011; Josephson et al., 2013). Josephson et al. (2011) performed a content analysis of the data and observed that therapists made individualised decisions about patient care based on their assessment of the psychosociocultural characteristics of the person, and the complexity of their physical presentation. Therapist perceptions about their patient's pain history, body structure, body function, activity participation, mental function, health related behaviours, workplace environment, and personal characteristics, contributed to their assessment of the patient's complexity and guided the therapist's treatment choices. Patients whose symptoms were considered to have a close relationship with physical or pathoanatomical impairments were considered simple, whereas when therapists believed patients also had impaired mental function and significant limitations to participating in activities of daily living, they were considered complex. Patients were considered very complex if their presentation was also characterised by psychosocial factors, including care seeking behaviour.

Josephson et al. (2013) analysed the same data using discourse analysis to explore how the sample of physiotherapists talked about their choice of interventions, and managed interactions with patients who were considered difficult. By drawing meaning from the language these therapists used, Josephson et al. (2013) observed that physiotherapists talked about their treatment choices as a problem-solving process. Importantly, physiotherapists think that interventions should be individualised based on their patient's treatment preferences, but only after the therapist's recommendations have been taken into consideration. The authors also observed that physiotherapists believe they should discuss a) the importance of patients taking personal responsibility for their health; b) the role of the therapist; c) the normality and ordinariness of back pain as a medical condition and feature of life; and d) their patient expectations for a quick fix, during consultations.

The third qualitative study directly exploring factors influencing interactions between people with back pain and physiotherapists, Jeffrey and Foster (2012), used hermeneutic phenomenology to explore how the personal experiences and feelings of therapists influence their decision-making practises when treating people with non-specific low back pain. The authors observed that tensions emerge between patients and therapists when the therapist's advice and treatment recommendations conflict with the attitudes, beliefs, and treatment expectations of the patient. In these situations, physiotherapists feel compelled to modify their own beliefs and expectations to preserve the relationship.

Studies exploring the influence of physiotherapists attitudes, beliefs, and treatment orientation on clinical practices.

Eight studies examined the influence of the attitudes, beliefs, and treatment orientation of physiotherapists on their practises (Alsheri et al., 2020; Christe et al., 2021; Daykin & Richardson, 2004; Houben et al., 2005; Linton et al., 2002; Martin-Perez et al., 2022; Pincus et al., 2011; Simmonds et al., 2012). Seven studies performed quantitative cross-sectional surveys to identify factors that predict or influence the behaviours of physiotherapists in clinical practice (Alsheri et al., 2020; Christe et al., 2021; Houben et al., 2005; Linton et al., 2002; Martin-Perez et al., 2022; Pincus et al., 2011; Simmonds et al., 2012). The other study explored these influences using the qualitative grounded theory methodology (Daykin & Richardson, 2004).

In the earliest quantitative cross-sectional survey, Linton et al. (2002) examined therapist beliefs about back pain to determine whether they predicted therapists issuing disability certificates, or their pain management advice and recommendations about participating in activities of daily living. The authors observed that fear avoidance beliefs were common in this sample of therapists, and that therapists with higher levels of those beliefs were more likely to certify work absences and provide cautionary advice about the safety of returning to work or participating in other daily activities. Physiotherapists surveyed in this study believed that during an episode of back pain sick leave was appropriate, painful movements should be avoided, and that a reduction in pain was a pre-requisite before returning to work.

Houben et al. (2005) also found that physiotherapists with a stronger bio-medical condition orientation were more likely to view physical activity as harmful and provide cautionary advice to patients that included limits on participation in physical activities and work. Later cross-sectional surveys also supported the finding in these earlier studies (Pincus et al., 2011; Simmonds et al., 2012). Pincus et al. (2011) for instance, observed that therapists with a stronger condition bio-medical orientation were more likely to believe that work activities were threatening and recommend work absences, or certify sick leave, during an episode of back pain. Simmonds et al.

(2012) similarly found that therapists with a stronger bio-medical condition orientation and who more fearful of pain were less tolerant of uncertainty and more likely to rate the likelihood of presence of spinal pathology and their patient’s disability as higher.

Two more recent quantitative cross-sectional surveys also support these findings (Alsheri et al., 2020; Christe et al., 2021). Alsheri et al. (2020) found that therapist attitudes and beliefs about back pain were associated with their treatment choices. Physiotherapists with stronger bio-medical beliefs were more likely to recommend specific back exercises, electrotherapy, soft tissue massage, hydrotherapy, acupuncture, and the use of lumbar supports, to their patients. On the other hand, therapists with stronger bio-psychosocial condition beliefs were more likely to recommend cognitive functional therapy. Alsheri et al. (2020) also found that notwithstanding their knowledge of clinical guidelines, the therapists surveyed continued to use treatments that are not recommended. Christie et al. (2021) similarly found that physiotherapists with stronger biomedical beliefs were more likely to advise patients to avoid activity and adopt protective strategies during an episode of back pain. They were also more likely to recommend passive treatment interventions.

The only qualitative study exploring the influence of the attitudes, beliefs, and treatment orientation of physiotherapists on their clinical practises(Daykin & Richardson, 2004), confirmed the findings in the quantitative studies. Daykin and Richardson (2004) performed semi-structured interviews to explore therapist perceptions about chronic low back pain, and then observed the therapists during their consultations with people with back pain to observe their dialogue and behaviour. The authors of this study observed that when therapists had stronger bio-medical beliefs, those beliefs informed aspects of their practice behaviour including their clinical reasoning, condition attribution beliefs, and the explanations they provided to their patients. Similar to the therapists in Josephson et al., (2011), the sample of therapists in Daykin and Richardson (2004) thought that some patients were easier to assist than others. Patients who were difficult to interact with were characterised by their expectations for passive treatment interventions, and those types of patients were considered more likely to have unsuccessful clinical outcomes.

However, a more recent quantitative cross-sectional survey contradicted the findings in the earlier studies, and also revealed internal contradictions within the attitudes and beliefs of the therapists sampled (Martin-Perez et al., 2022). Martin-Perez et al. (2022) observed that many of the therapists they surveyed held evidence-based attitudes and beliefs about back pain. This included believing that persistent pain was associated with psychosocial factors, imaging to diagnosis the causes of non-specific back pain were not necessary, and that exercise and activities that provoked symptoms were not unsafe during an episode. However the therapists in this study also thought that the relationships between tissue damage and biomechanical stressors, and pain intensity, were unclear, as was the answer to the question of whether symptom increases during activity suggested further damage. They also thought that individualised approaches to patient care should be the first line of treatment for back pain, but that treatments should not be progressed if this increased symptoms.

Studies exploring physiotherapists knowledge of and beliefs about clinical guidelines for back pain.

Three studies examined physiotherapists knowledge of and beliefs about clinical guidelines for back pain (Dergharzarian et al., 2011; Hendricks et al., 2013; Poitras et al., 2012). Based on the recognition that back pain is characterized by biophysical, psychological, and sociocultural factors, clinical guidelines, including those developed specifically for New Zealand (Hoffman & Mac Vicar, 2009), recommend physiotherapists adopt approaches to care that reflect the interconnectedness of those elements (Bernstein et al.,2017; Koes et al., 2010; Kreiner et al., 2020; Qaseem et al., 2017; Olivera et al., 2018). Clinical guidelines are therefore considered to be an important resource to guide the clinical practices of physiotherapists, and these studies could offer insights into factors that may be barriers to physiotherapists supporting people with back pain from a bio-psychosociocultural perspective (Koes et al., 2010; Olivera et al., 2018). Derghazarian et al. (2011) performed a cross-sectional survey examining therapist attitudes and beliefs towards back pain, and the extent to which the advice and treatment they provided were consistent with the recommendations contained in clinical guidelines. Similar to the observations in many of the other studies included in my review, the authors of the study observed that therapists with a stronger bio-medical condition orientation were more likely to rate the presence of spinal pathology as higher and disagree with guidelines-based management recommendations to advise patients to return to work and participate in their normal activities.

In the only study that was carried out in the New Zealand health setting, Hendricks et al. (2013) also explored the extent to which physiotherapists working in private practice adhered to low back pain guidelines, and factors which influence the use of guidelines to inform clinical decisions for patients. This study found that although therapists were aware of the content of clinical guidelines, and broadly provided advice about work, activity, and bed rest in line with guidelines recommendations, they were less likely to implement guidelines-based approaches to care if they had a stronger biomedical condition orientation. Poitras et al. (2012) similarly found that a stronger bio-medical condition orientation limited the implementation of clinical guidelines for back pain by physiotherapists. This study found that the therapists sampled believed they were not adequately trained to manage psychosocial factors, and that guidelines have limited application in clinical practice because they do not provide guidance on how to manage the physical and pathophysiological aspects of the condition. Physiotherapists in this study also believed patients expected biomedical approaches to care, and that bio-psychosociocultural approaches recommended by clinical guidelines were not appropriate when patients were paying for their treatment.

Summary of findings

Studies included suggested a number of factors influence interactions between people with back pain and physiotherapists and potentially impact therapist practises. Many of these factors might also be barriers to physiotherapists supporting people with back pain from a bio-psychosociocultural perspective. These factors can be grouped as factors that are specific to either the patient or the physiotherapist. Factors relating to patients include a) their treatment preferences and expectations; b) their attitudes and beliefs towards back pain; and c) their personal characteristics and psychosociocultural context. Factors relating to physiotherapists include a) their personal and professional attitudes and beliefs, and b) their condition orientation. These factors may also be symbiotic, and their expression and influence may be dependent on the nature and context of the patient-therapist interaction itself.

The research reviewed suggested the patient’s treatment preferences and expectations, their attitudes, beliefs, and condition orientation, and their personal characteristics and psychosociocultural context, influenced patient-therapist interactions and the practises of physiotherapists. Therapists sampled in several of the included studies considered the patient’s treatment preferences, expectations, and attitudes or beliefs, were part of their personal or psychosociocultural characteristics (Daykin & Richardson, 2004; Jeffrey & Foster, 2012; Josephson et al., 2013; Josephson et al., 2011). These were factors they took into consideration when making decisions about their patient’s care. These findings are consistent with research exploring therapists’ decision-making practices when treating patients with back pain and other musculoskeletal conditions (Elven & Dean, 2017; O’Keefe et al., 2016; Widerstrom et al., 2019). They are also consistent with factors that influence the decision-making practices of other health care professionals who support people with back pain (Allegretti et al., 2010; Corbett et al., 2009). However, although patient expectations and beliefs appear to influence interactions and therapist practises, research has not consistently demonstrated whether meeting people’s expectations is critical to the success or failure of physiotherapy interventions (Eklund et al., 2019; Metcalfe, & Klaber Moffet, 2005, Mohammed et al., 2020; Smeets et al., 2008), or influences long term patient outcomes (Enthoven et al., 2006; Hush et al., 2011; Tseili et al., 2019).

Studies included also suggested factors relating to physiotherapists, including their attitudes, beliefs, and condition orientation, influenced interactions with patients and impacted therapist practises. Many of the studies for instance suggested therapist beliefs played an important role in their clinical reasoning, and in the advice, explanations, and activity recommendations they provide (Alsheri et al., 2020; Christe et al., 2022; Daykin & Richardson, 2004; Derghazarian et al., 2011; Houben et al., 2005; Linton et al., 2002; Pincus et al., 2011; Simmonds et al., 2012). Physiotherapists with stronger bio-medical condition orientations for instance were more likely to ignore guidelines recommendations and recommend passive forms of care (Derghazarian et al., 2011; Simmonds et al., 2012; Christe et al., 2021). Physiotherapists with this orientation were also more likely to advise their patients to avoid work or physical activity during an episode of back pain (Alsheri et al., 2020; Christe et al., 2021; Derghazarian et al., 2011; Hendricks et al., 2013; Houben et al., 2005; Linton et al., 2005; Poitras et al., 2012; Simmonds et al., 2012). These findings are also consistent with studies exploring the decision-making practices of other health care professionals (Bishop et al., 2008; Corbett, Foster & Ong, 2009; Darlow et al., 2012; Fullen et al., 2008). They are also consistent with recent research that suggests physiotherapists make treatment decisions based on their pre-conceived attitudes and beliefs about the condition, rather than matching treatment approaches to impairments they identify during their clinical examinations (Widerstrom et al., 2021; Widerstrom et al., 2019).

The findings of my literature review are also consistent with research in the context of other musculoskeletal conditions that suggest the desire to build a therapeutic relationship is an important factor influencing patient-therapist interactions (Elvin & Dean, 2017; Hall et al., 2010; O'Keefe et al., 2016; Kelley et al., 2014; Kinney et al., 2020). In several of the studies for example, it was observed that when conflict arises between the therapist's condition beliefs or treatment preference, and those of their patient, therapists often feel compelled to modify their own beliefs and meet the patient expectations to preserve the relationship (Jeffrey & Foster, 2012; Poitras et al., 2012). This is consistent with the conflict that has been observed to occur between patient beliefs and expectations, and the beliefs and expectations of other health care professionals (Allegretti et al., 2010). Positive relationships between patients and therapists play an important role in patient satisfaction (Hush et al., 2011; Rossettini et al., 2020a), engagement with self-management strategies (Cheing et al., 2014), and the outcomes of physiotherapy care (Ferreira et al., 2013; Hall et al., 2010; Kinney et al., 2020).

However, my review findings suggest that providing treatments patients expect to preserve the relationships can leave physiotherapists having to choose between evidence informed approaches, and approaches they believe will result in poorer patient outcomes (Jeffrey & Foster, 2012; O'Keefe et al., 2016; Poitras et al., 2012). As Poitras et al. (2012) noted, when faced with these challenges, physiotherapists often manage their cognitive dissonance in these situations by rationalising that when patients expect bio-medical treatment approaches and are paying for their care, bio-psychosociocultural informed guidelines-based approaches are not appropriate.

Part Three: Study limitations, and limitations of review methods

Limitations of the studies included in my review.

Positivist methodological studies

Positivist methodological approaches have limitations when they are used to explore the complex and subjective nature of factors that influence applied health care practises of physiotherapists and the complexities of the interpersonal dynamics that influence relationships between therapists and their patients (Hutchison & Rodgers, 2012; Malterud, 2001; Thorne, 2011). Quantitative methodological approaches for example, use pre-determined treatment variables that limit the range of options for treatment or advice study participants might provide to their patients (Hutchison & Rodgers, 2012; Malterud, 2001; Thorne, 2011). Many of the quantitative studies in my review for example, limited the advice participants would provide to their patients during an episode of back pain to recommendations about bed rest, or the harmfulness of continuing to work and perform normal daily activities (Alsheri et al.,. 2020; Christe et al., 2021; Derghazarian et al., 2011; Hendricks et al., 2013; Houben et al., 2005; Linton et al., 2002; Pincus et al., 2011; Simmonds et al., 2012). Therefore, it cannot be inferred that if participants were asked to select from a list that contained other treatment options or advice, that the care or advice they indicate that they would provide to their patients would be the same (Thorne, 2011). The use of pre-determined variables also constrains understandings of how the contextual elements of interactions such as time constraints, organisational practices, and inter-personal relationship dynamics, interact to influence therapist practises (Giddings & Grant, 2006; Hutchison & Rogers, 2012; Thorne, 2011). These constraints limit the external validity of the findings of studies that perform their inquiries using quantitative methodologies (Thorne, 2011).

A number of quantitative studies included in my review also provided participants with a clinical vignette describing common back pain presentations to help prompt them to reveal the treatments and advice they would use with similar patients in their practise (Christe et al., 2021; Derghazarian et al., 2011; Houben et al., 2005; Linton et al., 2002; Simmonds et al., 2012). Although vignettes are a practical way to elicit information about self-reported practice behaviours, their use also limits the generalisability of the findings (Evans et al., 2015; Converse et al., 2015). Again, real-world contextual elements that play an important role during patient-therapist interactions such as the patients psychological or emotional needs, the influence of patient preferences and expectancies, and the role of the patient's previous responses to care, are difficult to capture in a vignette (Evans et al., 2015; Converse et al., 2015). Further, if studies fail to evaluate the vignettes psychometric properties, it is unclear how the information contained in the vignettes may have influenced participant responses (Evans et al., 2015; Converse et al., 2015).

Of the studies included in the review, only Derghazarian et al. (2011) and Simmonds et al. (2011) reported the steps they took to evaluate the psychometric properties of the vignette they used. Relying on self-reported practice behaviours also has limitations (Converse et al., 2015; Peabody et al., 2000). As noted in Hendricks et al. (2013), studies that rely on participants self-reporting their usual practises are susceptible to common method variance and social desirability bias. For instance, when asked to describe how they use clinical guidelines in practice, study participants often describe their knowledge of guidelines rather, rather than revealing how they actually use them in practice (Hendricks et al., 2013). The same is also true when therapist are asked to describe their clinical practises with therapists reporting how they think they should practise rather than revealing their actual practises (Converse et al., 2015; Gould, 1996; Hendricks et al., 2013; Peabody et al., 2000).

Many of the quantitative studies included in the review also used questionnaires to measure the attitudes, beliefs, and treatment orientation of study participants. These studies also relied on statistical analysis to examine whether relationship existed between those measures and the participants practice behaviours. To measure whether participants had a biomedical or bio-psychosocial orientation, and determine whether that orientation was associated with care and advice they would provide to their patients, six studies used the Pain Attitudes and Beliefs (Physiotherapists) questionnaire (Alsheri et al., 2020, Christe et al., 2021; Derghazarian et al., 2011; Hendricks et al., 2013; Houben et al., 2005; Simmonds et al., 2012), and two used the Attitudes and Belief to Back Pain Scale for musculoskeletal practitioners (Derghazarian et al., 2011; Pincus et al., 2011). Although these questionnaires have been shown to be valid and reliable measures of the attitudes, beliefs, and treatment orientation of physiotherapists (Bishop et al., 2007; Mutsaers et al., 2012; Pincus et al., 2006), reducing complex phenomenon down to discrete and measurable constructs limits understandings of the role that contextual elements play in how the attitudes, beliefs, and condition orientation of therapists influence their interactions with individual patients (Giddings & Grant, 2006; Hutchison & Rogers, 2012; Thorne, 2011).

Further, not all of the quantitative studies included in my review used versions of questionnaires that have established psychometric properties. Hendricks et al. (2013) Houben et al. (2005) and Linton et al. (2000) for example, used altered versions of questionnaires without establishing their reliability and validity. This limits the generalisability of the findings of these studies because it is unclear whether altered questionnaires have the same internal consistency, face, content, and differential predictive validity, as the original instruments (Hutchison & Rogers, 2012).

Interpretivist-constructivist studies

Qualitative studies included in my review also had limitations. Although qualitative methodologies are better suited to exploring contextual factors influencing the applied practices of physiotherapists, there are also factors undermining the dependability and trustworthiness of their findings (Queiros, Faria & Almeida, 2017; Rahi, 2017). For instance, many of the qualitative studies included in my review used purposeful sampling to strengthen the representative credibility of their participant samples and the information power of the data they provided. Josephson et al. (2013) for example purposefully sampled physiotherapists to achieve heterogeneity within and homogeneity between participants in two focus groups. Poitras et al. (2012) similarly, purposefully sampled therapists who, in the researcher's opinion, were representative of the wider study population and likely to provide in-depth data to help answer the research question. However, when purposeful sampling is used, there is a possibility of response bias where only potential participants who are interested in the topic and regularly reflect on their practice, would take part (Malterud et al., 2016; Rahi, 2017). Even when a representative sample is recruited, other therapists may offer different perspectives on the research question (Queiros, Faria & Almeida, 2017; Rahi, 2017).

The dependability and trustworthiness of the findings of qualitative research also depends on the methods of data collection (Queiros, Faria & Almeida, 2017; Rahi, 2017; Thorne et al., 2016). Several of the studies for example used semi-structured interviews and open-ended questions to explore the participants' beliefs, experiences, and practises (Daykin & Richardson, 2004; Jeffrey & Foster, 2012; Poitras et al., 2012). Semi-structured interviews, however, are reflexive, and the quality and content of the data they provide is sensitive to the quality of the dialogue between the researcher and their participants (Thorne, 2016). Participants might express different views if they were interviewed by a different researcher (Marshall, 1996; Thorne, 2016). Similar limitations can be identified in the method of data collection used by Josephson et al. (2013) and Josephson et al. (2011). Participants in these studies participated in focus group discussions and were asked open ended to explore their beliefs, experiences, and practises. Focus group discussions, however, can also be sensitive to group dynamics, and relationship dynamics can influence the quality of the dialogue between participants (Kitzinger, 2013; Queiros, Faria & Almeida, 2017). Questions over the representative credibility of participant samples, and issues with the trustworthiness of the methods of data collection, limit the transferability of the findings of these studies to other therapists working in the same or different health settings (Kitzinger, 2013; Malterud, 2001; Queiros, Faria & Almeida, 2017; Rahi, 2017).

Qualitative studies are also sensitive to the methodology used in the inquiry (Queiros, Faria & Almeida, 2017; Thorne et al., 2016). Thorne (2016) states that when qualitative methodologies are used, there must be epistemological integrity and coherence between the theoretical constructs of the methodology and all other aspects of the research. Not all the qualitative studies included in my review demonstrated epistemological integrity. Daykin & Richardson (2004) for example, used grounded theory to explore the influence of therapist beliefs on their practises. The authors found that when their participants had biomedical beliefs, this influenced their decision making and the explanations they provide to patients. Grounded theory, however, assumes the philosophical stance that social processes beyond individual consciousness influence human behaviour (Charmaz, 2008; Wuest, 2012). The purpose of a grounded theory inquiry, therefore, is to identify and build theory that demonstrates how social or cultural forces shape human behaviour (Charmaz, 2008; Wuest, 2012). Although Daykin and Richardson's (2004) findings offer potentially important insights into influences on therapist practices, the findings do not advance understandings of how social or cultural forces shaped the participants behaviours.

One possible explanation for the lack of epistemological integrity in Daykin and Richardson (2004) could be that the professional disciplinary perspectives of the researchers influenced their interpretive findings. The primary researchers in this study were physiotherapists, and the type of knowledge that physiotherapy values may be different from the type of knowledge that results from a grounded theory inquiry (Thorne et al., 2002). The researcher's may have applied a physiotherapy centric lens when interpreting the data and framed their findings in a way that offered greater clinical application potential than would normally be available when grounded theory is used as the methodology. This is consistent with Thorne et al.’s (2002) observation that when researchers from different professional disciplines use the same research methodology to perform what appear to be similar inquiries, discipline perspectives influence the nature of the findings.

However, not all the studies included in the review are limited in this way. The researchers in Jeffery and Foster (2012), Josephson et al. (2013), Josephson et al. (2011), and Poitras et al. (2012) were also physiotherapists and there is epistemological integrity and coherence between the findings in these studies and the methodology they used in their inquiries. Jeffery and Foster (2012) for example used hermeneutic phenomenology to explore how the beliefs of physiotherapists influenced their practises. Hermeneutic phenomenology was developed to understand the psychological processes and implications associated with the behaviours of individuals (Kalfe,2011; Sloan & Bowe, 2014). It could therefore be argued that the findings in Jeffrey and Foster (2012) should be framed in relation to the psychological implications and processes that the study participants experienced when making individualised treatment decisions for their patients. The main finding of this study was that physiotherapists modify their clinical behaviour to avoid conflict when they experience tension between the advice and treatment they feel is best for their patient, and the patient’s own attitudes, beliefs, or treatment expectations. Consistent with the epistemological foundations of hermeneutic phenomenology, the findings capture psychological processes and implications that are associated with the participants’ experiences. The findings therefore demonstrate epistemological integrity and offer potentially important insight into factors influencing the practises of physiotherapists.

Limitations and strengths of the methods of my literature search and review

The objective of my review was to identify and synthesise the findings of studies that have explored factors influencing interactions between people with back pain and physiotherapists that potentially impact therapist practices. These studies might also provide insights into barriers to supporting their people with back pain from a bio-psychosociocultural perspective. By including findings from studies from a diverse range of methodological sources, I hoped to present a synthesis of findings from previous research that would form part of the scaffold and frame of reference for my own inquiry. It would also assist me to make decisions about my methodology and methods. Narrative reviews are a flexible and pragmatic way to perform a review, therefore, any potential limitations associated with my methods need to be considered within the context of my reviews aims and objectives (Booth, 2019; Dixon-Woods et al., 2005; Greenhalgh, et al., 2018; Sukhera, 2022)**.** It is possible that the methodology of my review, and the methods I used to perform, offered a review of the literature with greater information power than using methods that aspired to systematic comprehensiveness as favoured by reviews performed when using the positivist paradigm (Greenhalgh, et al., 2018; Malterud, 2019).

The use of hybrid systematic and iterative search strategy to identify the sample of studies is a possible limitation of my review methods. Searching for studies reflexively and recursively rather than systematically risked omitting relevant studies that offered important insights that may have contradicted the findings of the studies included. Another researcher may also not be able to identify the same sample if they repeated my search using the same strategy. However, in keeping with the purpose of my review, and the finite nature of my time, financial resources, and access to databases with potential materials that were available during the search period, my search was not intended to be comprehensive or exhaustive. My search may have omitted studies offering additional important insights, but the strategy I used still enabled me to identify a sample with sufficient relevance and methodological variation to enhance the information power of my review findings (Malterud, 2019; Sarfo et al., 2021).

Performing a systematic review based on positivist paradigm methods may also have been problematic because the objective of my review was to identify studies from a variety of methodological sources. Approached iteratively, reflexively, and recursively, the methods of my search mitigated the effects of differences in study citation practices by the authors of quantitative and qualitative research. This limited the possibility that potentially important contributions to the research were overlooked. Similarly, it minimised difficulties identifying qualitative studies because indexing differences in MESH headings, and amongst qualitative journal titling and abstract requirements, make designing precise terminology for search strategies to identify qualitative studies more challenging (Britten et al., 2017; Malterud, 2019). The limitations of my search strategy were also mitigated by providing a clear description of the search terms and phrases, data sources, eligibility criteria, and my abstract screening methods. The sensitivity and specificity of search terms were optimised by using the phenomenon of interest and combining specific broad free-text and thesaurus terms and searching across a wide range of electronic databases (Booth, 2016). I also mitigated the limitation of a defined search period by continuing to search for relevant literature between April 2018 and June 2023 to ensure that studies published after my initial search had been completed were included in my review.

Another possible limitation of my review is that I did not perform a rigorous critical appraisal of the studies included. I synthesised their methodologies, methods, and key findings descriptively, and interpreted findings to emphasise similarities. This resulted in a narrative synthesis that was demonstrably grounded in the findings and offered consistent insights into influences on therapist practises from a wide range of methodological sources. The limitations of this type of approach to synthesising research findings from a wide range of methodologies are mitigated when the findings converge and suggest a similar meaning in the underlying constructs under review (Booth, 2019; Dixon-Woods et al., 2005; Greenhalgh, et al., 2018). I acknowledge that if I had used a more rigorous method of critical appraisal, including applying a validated appraisal tool such as the Qualitative Assessment Review Instrument, that I may have improved the information power of my analysis and captured more thought-provoking variations, tensions, or contradictions (Garside, 2014; Majid & Vanstone, 2018; Tong et al., 2012). My descriptive analysis of the qualitative studies included in my review also risked marginalising important contextual differences between the studies and increased the risk of interpretation errors (Britten et al., 2017; Carrol & Booth, 2015; Garside, 2014; Sandelowski, 2015). As Britten et al. (2017) suggested, a descriptive analysis of qualitative research potentially deprives the reader of the review of a true sense of the depth, complexity, richness, and diversity inherent in the findings of studies that are performed using interpretivist-constructivist methodologies.

However, because the objective of my review was to synthesise the findings from literature from diverse methodological sources, a descriptive synthesise without higher levels of abstraction or critical appraisal was appropriate (Dixon-Woods et al., 2005). By limiting the level of critical appraisal, the challenges associated with reliably appraising and comparing studies from different paradigms or appraising and comparing studies using different methodologies within the same paradigm, were reduced (Dixon-Woods et al., 2006; Malterud, 2019). If I had performed a more rigorous appraisal of the studies, studies offering potentially important insights may have been excluded from my review on account of the quality of their methods. Appraising qualitative research to distinguish high from low-quality research can be both complex and highly subjective (Carroll & Booth, 2014; Garside, 2014; Sandelowski, 2014; Thorne, 2017). Arbitrarily excluding studies on the basis of their methodological quality could, therefore, have adversely affected the information power of my review findings.

Part Four: Implications for my research paradigm and methodology selection

One of the objectives of my literature review was to synthesise the findings from a diverse range of methodological sources as part of the fore structure and analytical frame of reference for my own inquiry. I also hoped that by exploring previous research, it would help guide my decisions about the methodology and methods for my research. When reviewing the literature I reflected that previous research had been performed using both positivist and interpretivist-constructivist methodologies to explore influences on patient-therapist interactions and therapist practises. Methodologies from different research paradigms had provided different and complimentary insights when similar questions were explored. All of the methodologies used in previous research had strengths and limitations, however the findings in many of these studies also appeared to be very specific to the methodology that was used to perform the inquiry. So although the findings of my review suggested my research could be performed using a positivist or an interpretivist-constructivist methodology, the importance of understanding the type of knowledge I wanted my inquiry to produce when selecting my own methodology was highlighted. Once this was clear, I could match the desired research product with the paradigm and methodology I believed was best suited to that. However, it was also clear after completing my review that my discipline perspectives would play an important role in guiding my understandings of the type of knowledge my inquiry would produce. It would also play an important role in the methodology I selected and my research findings.

The next Chapter (Chapter Three), therefore, critically explores my professional discipline perspectives, and the role that those perspectives play in scaffolding my research inquiry and the selection of my research methodology. Chapter Three also explores my self-reflexivity and makes transparent how my own professional experiences and perspectives, potentially, influenced my research processes and findings.

Chapter Three – Professional discipline perspectives and positionality

In Chapter Two I reflected that previous research had been performed using both positivist and interpretivist-constructivist methodologies to explore influences on patient-therapist interactions and therapist practises. My review findings suggested methodologies from different research paradigms offered different but complimentary insights when similar questions were explored. The findings in the studies in my review also appeared to be specific to the methodologies used, and on some occasions were also influenced by the knowledge needs of the researchers' profession e.g. Daykin and Richardson (2004). When performing research, the researcher's professional discipline and personal experiential perspectives play an important role in the framework and processes of the inquiry (Thorne, 2016). Together, these perspective guide understandings of the type of knowledge that is needed to advance a profession and play an influential role in all facets of the research including the methodology selected, the methods of the inquiry, and the nature of the findings (Thorne et al., 2002; Thorne, 2016). Therefore, although my review suggested my inquiry could be performed using positivist or interpretivist-constructivist methodologies, I needed to understand the type of knowledge required to advance the applied practices of my profession. I also needed to understand the influential role my discipline and personal experiential perspectives played in my methodology selection and research processes.

The objective of this chapter, therefore, is to critically discuss the role the physiotherapy profession's discipline perspectives play in the practices of physiotherapists, and research into physiotherapy theory and therapist practises. It is also to explore and makes transparent how my own professional and experiential perspectives could influence my inquiry processes and findings. Transparency about my discipline and personal experiential perspectives would be important if I selected the constructivist-interpretivist research paradigm because many qualitative methodologies require the researcher to outline their positionality and make transparent how own their professional identity and experiences influenced their research processes and findings (Thorne, 2016; Thorne et al., 2002). It was, therefore, important to critically reflect on my professional discipline perspectives and personal experiential perspectives before my inquiry commenced (Thorne, 2016).

The Chapter is presented in three parts. Part One contains a critical reflection on the role physiotherapy profession's discipline perspectives play in the practises of physiotherapists, and research into physiotherapy theory and practise. Part Two discusses my professional and experiential perspectives to make transparent how they potentially influenced my research processes and findings. Part Three briefly summarises the implications for the methodology of my research.

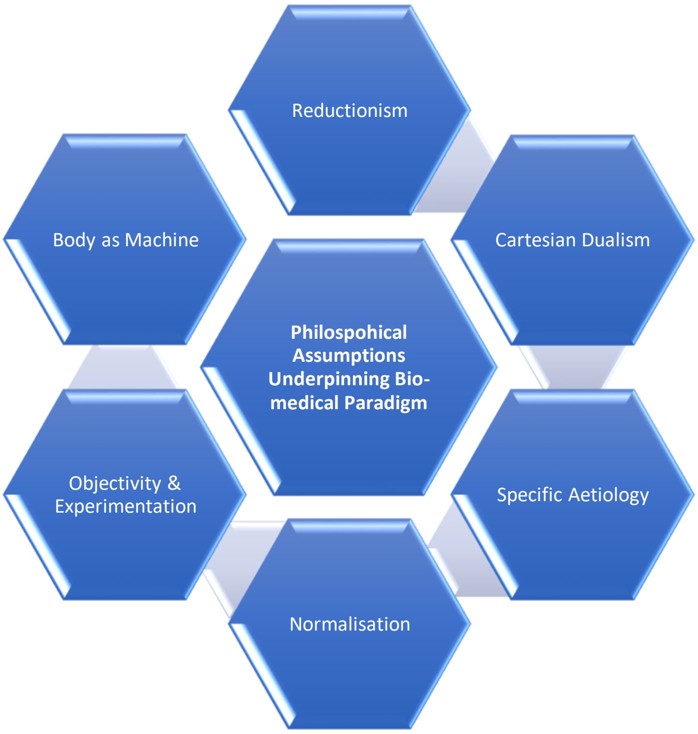
Part One: Physiotherapy profession's discipline perspectives

Professional discipline perspectives and theoretical assumptions play an important role when performing research (Thorne et al., 2002). They shape the researcher's understanding of the type of knowledge that would be useful to advance the profession and guide all aspects of the research including how the question is framed, the methodology and methods, and the interpretive lens applied by the researcher during the analysis (Thorne et al., 2002). As Thorne (2002) explained, when research is performed by researchers from different disciplines, their professional perspectives shape all aspects and play a *"… disturbingly important role in determining what the findings might look like …"* (p442). For example, when research is carried out by sociologists, the findings are oriented towards improving understandings of how social or cultural forces shape behaviour because the discipline perspective of sociology is that social processes beyond individual consciousness explain human behaviour (Charmaz, 2008; Thorne et al., 2002; Wuest, 2012).

Sociologists, therefore, often select grounded theory to explore their research questions because it is aligned with their disciplinary perspectives and was developed by the profession to meet their knowledge needs (Thorne et al., 2002). The psychology discipline on the other hand is grounded in the premise that truths are accessible through developing understandings of lived human experiences (Thorne et al., 2002). Consequently, the psychology discipline often uses phenomenological methodologies because they are grounded in the philosophical stance that there is an essential structure or truth to people's experiences that can be discovered by exploring people's lived experiences (Kalfe,2011; Sloan & Bowe, 2014). Research questions deriving from different discipline can, therefore, on the surface appear to represent similar kinds of inquiries, but discipline perspectives play an important role in the methodologies researchers from different disciplines choose and the type of knowledge that the inquiry produces (Thorne et al., 2002).

However, despite literature emerging to describe what physiotherapy is in theory and practice, the physiotherapy profession is less clear about its contemporary professional identity than other health care disciplines and has not developed a methodology of its own to satisfy its knowledge needs (Nicholls & Gibson, 2010; Nicholls et al., 2016; Noronen & Wikstrom-Grotell, 1999; Santy, 1999; Smith, Roberts & Balmer, 2000). Historically, the profession adopted the biomedical paradigm to establish its legitimacy and the assumptions of this paradigm have served as a point of reference for professional practice, education, and research, since the profession's inception (Nicholls et al., 2016; Nicholls & Holmes, 2012; Nicholls & Gibson, 2010). The philosophical assumptions of the biomedical paradigm (Figure 1) have their foundations in reductionism and Cartesian Dualism and divide the body's structure and function into separate parts, including separating mind and body (Nicholls et al., 2016).

Figure 1. Philosophical and theoretical assumptions underlying the biomedical paradigm (Adapted from Nicholls et al., 2016



Reductionism and Cartesian Dualism promote a narrow concept of health and illness where health care professionals seek to understand the function of the body in the same way as we understand the workings of simple or complex machines (Dalusio-King & Hebron, 2022). The historical impact of this conceptualism on physiotherapy practice is best illustrated by Higgs, Refshauge, and Ellis's (2001) definition of physiotherapy and the objectives of the physiotherapy evaluation. In their "*Portrait of the Physiotherapy Profession*", Higgs et al. (2001) suggest that:

> "… physiotherapy is concerned with the promotion of health and wellbeing and with prevention, treatment or rehabilitation of disorders or dysfunction of human movement … and since movement disorders are associated with difficulty in the performance of functional activities, the primary goal of physiotherapy is … [therefore] ... to assist patients in the restoration of normal function… physiotherapy's main aim is to … identify and provide interventions that restore the integrity of body systems …" (p81)

According to this definition, physiotherapists are experts in the function of the human body and uniquely qualified to use logic, reason, and objective evaluation to distinguish between normal and abnormal function. In turn, physiotherapists use their logic and reason to promote interventions that normalise abnormalities or dysfunctions (Nicholls et al., 2016). Diagnostic practices in physiotherapy, therefore, represent the:

> "… outcome of the process of objectivity in the examination … [and] … reasoning to identify categories of impairment, functional limitations, abilities/disabilities, or … movement dysfunction …" (Higgs et al., 2001, p82)

Physiotherapy interventions, therefore, target the normalisation of impairments to balance, muscle strength, motor control, joint range of motion, or cardiovascular fitness and respiratory function (Higgs et al., 2001).

Biomedical assumptions, however, do not reflect modern bio-psychosociocultural conceptualisations of health, or the responsibilities of physiotherapists (Cormack et al., 2022; Dillon et al., 2023; Nicholls et al., 2016; Mescouto, Olson, & Setchell., 2022; Smart, 2023). Biomedical perspectives fragment a person's health experience into unconnected parts, and marginalise interconnected psychological, emotional, and sociocultural dimensions that influence a person's health and illness experiences (Cormack et al., 2022; Dillon et al., 2023; Mescouto et al., 2022a). Physiotherapists as human interactors are equally as responsible for responding to their patients psychosociocultural dimensions as they are for identifying and implementing strategies to correct biophysical abnormalities and dysfunctions (Cormack et al., 2022; Dillon et al., 2023; Mescouto, et al., 2022a). The emergence of these understandings has led to calls from within the profession for physiotherapy to develop a new professional identity that reflects contemporary understandings of the complex range bio- psychosociocultural considerations that contribute to a person's health and illness experience (Cormack et al., 2022; Dillon et al., 2023; Nicholls et al., 2016; Mescouto, et al., 2022a).

Historically, with their discipline perspectives underpinned by biomedical paradigm philosophies, researchers into physiotherapy theory and therapist practises have favoured value-neutral positivist paradigm methodologies (Nicholls & Gibson, 2010; Nicholls et al., 2016; Thorne et al., 2002). However, the emergence of these new understandings of health and therapist responsibilities have also led to calls for research into physiotherapy theory and therapist practises to be performed using methodologies that allow the complexities of the context and interconnected psychological, emotional, and sociocultural dimensions to be revealed (Cormack et al., 2022; Nicholls & Gibson, 2010; Nicholls et al., 2016). Quantitative methodologies, with their requirements for pre-determined variables, and use of numerical measures and statistical analysis to identify probabilistic cause and effect relationships, marginalise contextual elements and the interconnectedness of the bio-psychosociocultural dimensions that contribute to people's and health care experience (Thorne, 2016; Thorne et al., 2002). As Thorne (2016) explained, quantitative methodologies a) systematically eliminate relevant contextual factors from the study; b) rely on selective measures that miss key experimental components; and c) use methods of analysis that "… *conflate concepts that seem intuitively distinct to the wise practitioner…"* (Thorne, 2016; p 261). This suggests that if research into physiotherapy theory and therapist practises is to provide knowledge that advances the profession, it might also be beneficial to perform research using methodologies that can offer different kind of insights.

Part Two: Professional and personal experiential perspectives

Researcher's professional and personal perspectives play an important role when performing research (Thorne, 2016; Thorne et al., 2002). Just as discipline perspectives shape the question, and guide the methodology and methods of the research, the researcher's professional and personal experiences of the phenomenon of interest play an important role in shaping the nature and processes of the research and influence the interpretive lens that is applied during the analysis (Thorne, 2016; Thorne et al., 2002). Some qualitative methodologies explicitly recognise and value those professional and experiential perspectives (Thorne, 2016). In Interpretive Description for example, researcher's professional and personal perspectives are recognised as a fundamental source of applied practice insight and embraced as part of the framework for the inquiry (Hunt, 2009; Thorne, 2016; Thorne, 2006). Reflecting on my own professional and personal experiential perspectives, therefore, was an important step in formulating my research question, and the scaffolding of my inquiry.

Reflecting on my professional and personal perspectives before my research commenced was also an important part of demonstrating self-reflexivity so that future readers of my research could recognize how those perspectives, potentially, influenced my research processes and findings. Therefore, prior to commencing my research I participated in a pre-assumptions interview and wrote a reflective statement setting out my beliefs about back pain (Appendices 3 and 4). The interview and reflective statement captured my personal and professional perspectives about influences on patient-therapist interactions and barriers to supporting people with back pain from a bio-psychosociocultural perspective. These reflections lead me to develop a list of key pre-assumptions about influences on patient-therapist interactions that impact therapist practices before I commenced my own inquiry. Those pre-assumptions are set out in Table 5.

Table 5. Key pre-assumptions about influences on patient-therapist interactions that impact therapist practices

1. Interpersonal relationship dynamics influence interactions and therapist decision-making practices.
2. Interactions and therapist practices are influenced by the patient’s personal and psychosociocultural characteristics.
3. Therapists consider patients with complex psychosociocultural needs difficult to manage and make therapists uncomfortable.
4. Therapists are uncertain about how they should respond when patients reveal their emotional needs. Therefore, they rely on approaches that prioritise the physical aspects of the patient’s presentation.
5. Therapists prioritise their own professional expertise over their patient’s views and perspectives and prefer to prioritise their own beliefs and treatment preferences in their approaches to patient care.
6. Many therapists have bio-medical condition beliefs and prefer hands-on approaches that reinforce patient expectations for bio-medical diagnosis-treatment-curative pathways.
7. Conflict between patient-therapist understanding of the condition and treatment expectations is a source of frustration for therapists during interactions and causes relationship tensions. Therapists manage this tension by compromising their own beliefs and providing care that meets the patient’s expectations to maintain the relationship.
8. Interactions are influenced by the therapist’s capacity to cope with other people’s concerns and respond to their needs.
9. The ACC Scheme is a source of tension and conflict during interactions that, potentially, influences therapist behaviours

The interview and reflective statement captured many of my personal beliefs that had evolved from my own experiences in private practice supporting people with back pain. These beliefs could influence my research processes and the product of my interpretations of other therapists’ experiences. For instance, my experiences had taught me that the quality of the therapeutic relationship was important for a successful interaction, and to the outcomes of my interventions. Patients were easier to work with if I built rapport and trust, and people had confidence in me. However, some patients did not respond to my attempts to create rapport, and I was uncertain about how to develop connection with these people. Meeting people’s expectations and providing hands on treatments were, in my experience, sometimes effective ways to establish trust and gain people’s confidence. In my experience, people were also more likely to engage with physiotherapy interventions when interventions reflected their expectations. When treatment did not reflect people’s expectations, tension arose in the relationship, and people were less likely to be satisfied with their treatment or return for further physiotherapy.

In my experience, people’s personal characteristics also appeared to play an important role in relationship formation. People’s beliefs about whether they would recover or had the time to perform rehabilitation exercises also influenced their outcome. People who wanted to understand their condition and were open to advice, similarly, responded better to physiotherapy care. Other factors such as other challenges people were experiencing in their life, their ability to cope with adversity, their levels of anxiety and stress, and whether they tended to catastrophise, were also important influences.

However, people's personal characteristics and/or psychosociocultural factors were not the only things influencing interactions. My capacity to cope with other people's concerns, and how I responded to peoples' needs, also influenced my relationships. On some occasions, my own work-related stress, physical fatigue, health challenges, and external life stresses influenced my capacity to engage with patients during consultations. Similarly, in my experience, when my understanding of the condition and expectations for treatment conflicted with my patients, it was a source of tension in the relationship. I often managed this tension by compromising my own beliefs and expectations. Although frustrating, I believed the patients' needs were greater than my own. I rationalised that if people did not get the care they expected, they were less likely to benefit from the care I provided.

Finally, in my experience, tension and conflict during interactions could also arise from my role as an agent for ACC. Many patients were aware of the need to identify specific accidents and/or injuries to access cover under ACC. This could be problematic in practice if I could not identify a specific path-anatomical cause for the patient's symptoms, or patients could not recall a specific incident or accident when an injury might have occurred. There were often pressures in practice to identify an accident in the patient's history, and biomedical symptom causation, to validate ACC cover. These pressures, sometimes, influenced my practices.

My experiences working with other physiotherapists in professional education also had potential to influence my research processes and findings. For example, in my experience, non-evidence-based beliefs about back pain were prevalent amongst therapists I had worked with as a clinical educator (and in private practice). Therapists often appeared to have biomedical beliefs and provided advice and treatments that reinforced patient expectations for diagnostic-treatment-curative pathways. This included reinforcing patient beliefs that symptoms were associated with tissue damage, and that the spine was vulnerable to injury from abnormal movement patterns, poor posture, or incorrect lifting techniques.

I had observed that many therapists also preferred to practice from a hands-on perspective and were uncomfortable when patients revealed emotions or psychosociocultural needs. They were unclear about how to support their patients in these situations and did not believe their professional training had adequately prepared them for these challenges. Many believed their professional training had emphasised manual techniques such as passive or accessory movements to the spinal column, and they had also participated in continuing professional development training courses including those teaching the McKenzie (McKenzie & May, 2003) and Mulligan (Pourahmadi et al., 2018) methods, or NZMPA courses, that emphasised mechanical assessment, diagnosis, and treatment principles. These courses prioritise teaching therapists how to identify physical causes of people's symptoms, evaluate tissue responses to repeated loading, and/or relate symptoms to structural/anatomical abnormalities. This information is used to promote biomechanical rationales for the effects of physiotherapy interventions. Not surprisingly, many of the physiotherapists I worked with were more comfortable providing biomechanical explanations for the effects of their treatments, rather than acknowledging the complexity of the mechanisms associated with changes in pain, disability, and function that some patients experience after they receive a physiotherapy intervention.

The interview and reflective statement also allowed me to reflect on how my understandings of health and health care practice had evolved during my career. Earlier in my career, the philosophies, and assumptions at the core of the identity of the profession acted as a point of reference for my practises. As a novice practitioner for example, I found people who had challenging personal characteristics or complex multi-dimensional bio-psychosociocultural presentations challenging. These types of people made me uncomfortable, and I was uncertain about how I should interact with them or respond when they revealed their needs. I therefore relied on traditional biomedical approaches to care, prioritising the physical aspects of their presentations and ignoring their emotional needs or psychosociocultural dimensions. Priding myself on my logic and reason, I believed I was an expert at identifying physical impairments that contributed to people's symptoms, and at matching interventions that normalised their dysfunctions. I frequently promoted biomechanical rationales for the effects of my interventions and attributed successful outcomes to changes in the person's physical impairments. This made me feel more comfortable and less insecure during my interactions. Consistent with the assumptions and philosophies of the biomedical paradigm, I also prioritised my own professional expertise over my patient's views and perspectives and lacked awareness of the importance of their views and preferences when making decisions about their care.

I began challenging my perspectives and assumptions when my experiences in clinical practice and continuing professional development suggested that improving interpersonal relationship factors, responding to people's emotions, and acknowledging their psychosociocultural dimensions, might improve my interaction experiences and lead to better clinical outcomes. I recognised that ignoring people's emotional and psychosociocultural needs influenced my relationships, and marginalised important aspects of their presentations. Further, I started to gain awareness that people with similar conditions and presentations responded differently to the same interventions. Different interventions also appeared to be equally effective for people with similar conditions and presentations. People also appeared to respond to holistic approaches to their care that did not target changes in physical impairments. Listening and responding to people concerns and recognising their emotional needs was an effective intervention on many occasions. As I listened more to people's own perspectives and began to recognise the value of the relationship and the subjective elements of people's health experiences, my clinical interactions improved, and my own uncertainties and discomforts during interactions reduced. I therefore began questioning how physiotherapy interventions worked, why different interventions were effective for people with similar conditions, and why relational factors played a potentially important role in people's outcomes. Although it is unclear whether changes in my practices led to better outcomes than my previous practises, these and other reflections on my practise experiences provided the framework for my research.

Part Three: Implications for my research paradigm and methodology

Reflecting on the philosophical assumptions that have shaped physiotherapy practice, and my own personal and professional perspectives, helped me understand the important role these factors play in my own practises, and also, in physiotherapy research. It helped me understand why research into physiotherapy theory and therapist practises has historically been performed using positivist-paradigm methodologies, and to recognise that the deterministic and reductionist approaches aligned with the biomedical paradigm might not allow me to adequately explore the complexities of the range of interconnected factors that in my experience, influenced interactions and therapist practises. As a consequence of my own experiences, I was interested in exploring other therapists' perspectives on influences that impacted their practices. When performing my research, I did not want to use a methodology that risked overlooking contextual interpersonal relationship factors or eliminated interconnectedness of the bio-psychosociocultural dimensions that influenced a person’s health and health care experience. In my own practice, contextual factors were an important influence during my interactions and impacted my practises.

My reflections on my own practice experiences also helped me to recognise that I did not want to perform my research using a methodology that sought to eliminate the insights provided by my own experiences. These reflections guided me to conclude that if my research was to provide knowledge that advances the professions understandings of influences on patient-therapist interactions, and potentially, lead to better therapist practises, my research needed to be performed using a methodology that valued my knowledge and experiences as the framework for the inquiry. The methodology I chose also needed to offer different kinds of insights than those provided by quantitative methodologies. These reflections were consistent with calls for research into physiotherapy theory and practice to be performed using methodologies that allow the complexities of the context and interconnected psychological, emotional, and sociocultural dimensions to be revealed (Cormack et al., 2022; Nicholls & Gibson, 2010; Nicholls et al., 2016).

Reflecting on my own personal experiential perspectives also made transparent my pre-assumptions about influences on patient-therapist interactions, and barriers supporting people with back from a bio-psychosociocultural perspective. These assumptions could influence my research processes and the products of my inquiry. The next Chapter (Chapter Four) progresses this discussion by describing how I identified Interpretive Description as my methodology, its epistemological and philosophical assumptions, and how and why those assumptions were congruent with my research objectives.

Chapter Four – Methodology

In chapters two and three, I set out key aspects of the framework for my research inquiry. This included synthesising the findings of previous studies and critiquing their methodologies and methods (Chapter Two) and exploring the implications of the physiotherapy professions discipline perspectives, and my personal and professional perspectives (Chapter Three). Both chapters highlighted that I could explore influences on physiotherapy practice using positivist or interpretivist-constructivist methodologies, but methodologies from different paradigms provided different insights when similar research questions were explored. It was, therefore, important to explore different methodologies, their epistemological and philosophical assumptions, and the types of insights they offered, to inform the selection of a methodology that was suited to providing knowledge that would help further the applied practices of physiotherapists.

The objective of this chapter is for the reader to understand how and why I chose Interpretive Description as my methodology. It also sets out the key epistemological and philosophical assumptions, and how and why they were congruent with the aims of my research. The implications of the methodology for my research methods are also briefly described.

The Chapter is presented in five parts. Part One describes my desired research output and methodology considerations. Part Two describes Interpretive Description and its key epistemological and philosophical assumptions. Part Three critically discusses how and why I chose the methodology. Part Four sets out the key philosophical assumptions of Interpretive Description that informed my research. Finally, Part Five describes the implications of selecting Interpretive Description for my research methods.

Part One: Desired research output and methodology considerations

Desired research output

As a consequence of my own experiences in practice, I was interested in exploring other physiotherapists' experiences of their interactions with people with back pain to understand factors they perceived influenced their clinical interactions. These factors might also provide insights into barriers to supporting people with back pain from a bio-psychosociocultural perspective in physiotherapy practice. My interest in this area of research derived directly from my own practice experiences. Those experiences suggested a broad range of condition-specific, contextual, and relational factors influenced patient-therapist interactions and therapist practises (Chapter Three). My review of previous literature (Chapter Two) also suggested factors that influence interactions between people with back pain and physiotherapists. These factors can be grouped as factors that were specific to either the patient (treatment preferences and expectations, attitudes and beliefs, personal characteristics, psychosociocultural context), or the therapist (personal and professional attitudes and beliefs, condition orientation). My review also suggested these factors could be symbiotic, with their expression and influence dependent on the nature and context of the patient-therapist interaction itself.

Therefore I hoped that by performing research into the experiences and perspectives of physiotherapists supporting people with this condition in private practice in New Zealand, that my research might provide new insights and understandings into those influences and help inform strategies to improve interactions between people with back pain and physiotherapists. They might also inform strategies to support the implementation of bio-psychosociocultural approaches with people with back pain in this health setting. Identifying and recommending ways to improve interactions and support people with back pain from a bio-psychosociocultural perspective and implementing those recommendations in clinical practice could improve outcomes for people with back pain who consult with physiotherapists.

Methodology considerations

My desired research output was knowledge that had direct application to applied health care practises. The methodology I chose, therefore, needed to be suitable for answering questions from the field of practice. Because my question arose from my own practice experiences, and I wanted to capitalise on my own knowledge and insights to help identify patterns in other therapists' experiences, the methodology would also need to value and embrace my knowledge and experiences as part of the research framework. It would also need to value the subjective and experiential knowledge of my study participants as a source of applied practice insight. The methodology would need to allow me to explore and describe patterns within their experiences free from methodological assumptions derived from the nuanced philosophical standpoints guiding research to satisfy the knowledge needs of other disciplines. Based on my own experiences, a broad range of complex interconnected factors influenced peoples back pain experiences, so the methodology I chose would similarly need to recognise that people's experiences have contextual elements, and that complex interactions between psychosociocultural and biophysical dimensions influence health and, potentially, the applied practises of physiotherapists.

Part Two: Interpretive Description

The methodology I chose for my research was Interpretive Description. Interpretive Description is a flexible non-categorical interpretivist-constructivist methodology that is founded on the epistemological assumptions of the nursing discipline (Hunt, 2009; Thompson-Burdine, Thorne, & Sandhu, 2021). Interpretive Description evolved alongside other less prescriptive qualitative methodologies to allow nurses, and other health disciplines, to explore questions designed to advance applied health care practises (Thompson-Burdine et al., 2020; Thorne et al., 1997). Philosophically, Interpretive Description is informed by axioms of interpretive naturalistic inquiry and aims to generate new understandings of people's health care experiences to guide clinical practice (Thompson-Burdine et al., 2021; Thorne et al. 1997). The key epistemological of the methodology are set out in Table 6.

Table 6. Key epistemological assumptions of Interpretive Description (Adapted from Hunt, 2009; Thompson-Burdine, et al., 2021; Thorne, 2016)

1. Inquiry will be conducted in naturalistic manner that is respectful of the comfort and ethical rights of study participants.
2. Values and recognises that subjective and experiential knowledge is a fundamental source of insight.
3. Recognises that commonalities and variances within experiences provide useful insights into applied health practices.
4. Attends carefully to the time and context within which experiences take place.
5. Acknowledges the social and contextual construction of experiences and recognises that experiences cannot be meaningfully separated from their essential nature.
6. Recognises that, in the world of experiences, reality involves multiple constructed realities within which there will be contradictions and commonalities.
7. Acknowledges the inseparable interaction between the knower and the known, such that researchers and study participants influence one another during an inquiry and co-produce the research outcomes

Uniquely, Interpretive Description accommodates understandings that people's experiences are comprised of complex interactions between psychosocial and biological phenomena, and values subjective and experiential knowledge as a fundamental source of applied practice insight (Thompson-Burdine et al., 2020). In Interpretive Description, positivist assumptions such as objectivity, logic, and reason, give way to the recognition that people's experiences are contextual and socially constructed, and that experiences reveal multiple constructed realities that may at times be complimentary and contradictory (Thorne, Kirkham, & O'Flynn-Magee, 2004). As Thorne et al. (2004) explained, Interpretive Description considers that people's experiences are " … *complex, contextual, constructed, and ultimately … subjective…"* (p3). Researchers using

Interpretive Description as the methodology must, therefore, attend carefully to the time and context in which a person's experiences take place (Thorne, 2004). The end product of Interpretive Description inquiry is, therefore, "*…a coherent conceptual description that taps thematic patterns and commonalities believed to characterize the phenomenon that is being studied, and also accounts for the inevitable individual variations within them…"* (Thorne et al., 2004, p4).

Other unique epistemological assumptions underpinning Interpretive Description include the recognition that when using the methodology, the researcher and "… *the "object" of the inquiry, interact to influence one another* …" (Thorne, et al., 2004, p3). Stated another way, in Interpretive Description there is an inseparable interaction between the knower and the known, and the researcher and study participants influence one another during the process and co-construct the findings (Thompson-Burdine et al., 2021). Interpretive Description also values the researchers subjective and experiential knowledge as a fundamental source of applied practice insight, and explicitly recognises this as part of the framework for the inquiry (Thompson-Burdine et al., 2021). Rather than seeking to control or eliminate the influence of the researcher's knowledge and experiences, the methodology "… *presumes there will be some theoretical knowledge, clinical pattern observation, and scientific basis* …" from which the research arose (Thorne, et al., 2004, p50). Rather than seeking to control or eliminate this, Interpretive Description explicitly values the role the researchers' knowledge, and experiences plays in all stages of the inquiry, including data collection and interpretation (Thompson-Burdine et al., 2020; Thorne et al., 1997).

Interpretive Description, however, is not without its limitations. It is only considered suitable for smaller scale research inquiries when the aim is to identify themes and patterns within people's experiences that have the potential to advance applied practice knowledge (Thorne et al., 2004). The findings must, therefore, have application potential in the sense that they *"… improve assessment, planning, and interventional strategies…"* (Thorne et al., 2004, p4). The findings of an Interpretive Description inquiries also, can only constitute only a "*tentative claim about the truth*" of people's experiences (Thorne et al., 2004, p4). Because people's experiences are complex, contextual, and ultimately subjective, this limits the extent to which findings can be considered new insights or truths about the phenomenon under investigation (Thorne, et al., 2004). It is always possible that if a different researcher, possessing different knowledge and experiences, collected and interpreted the data from participants, or other study participants with experiences that evolved in different social contexts contributed to the inquiry, the findings might provide different insights into clinical practises (Thorne et al., 2004).

Part Three: Methodology Selection

Interpretive Description was chosen as my methodology because its epistemological assumptions were congruent with the objectives and desired product of my research. Before deciding on this methodology, I considered methodologies that had been used in earlier studies. For example, I considered performing my inquiry using a positivist paradigm methodology but concluded that the deterministic and reductionist approaches associated with this paradigm, eliminating potentially important variables, and emphasising identifying probabilistic cause and effect relationships, could limit insights into contextual factors influencing patient-therapist interactions. Positivist approaches also require objectivity and attempt to remove the influence of the researcher's knowledge and experiences from all aspects of the research. I did not want to control or eliminate the influence of my own personal and professional perspectives because I considered they would be useful for understanding and identifying patterns in other therapists' experiences.

Other interpretivist-constructivist methodologies such as grounded theory and hermeneutic phenomenology were also considered. Those methodologies, however, advance the philosophical stance of the disciplines from which they originated (Thorne et al., 1997). They also impose complex nuanced methodological standards designed to provide knowledge that aligns with the needs of those disciplines (Thorne et al., 1997). Hermeneutic phenomenology for example, seeks to understand the deeper meaning of people's experiences through interpreting narrative text (Kalfe,2011; Sloan & Bowe, 2014). This approach has arisen to serve the knowledge needs of psychologists and is grounded in the philosophical stance that there is an essential structure or truth to people's experiences that can be discovered by exploring their lived experiences (Kalfe,2011; Sloan & Bowe, 2014). The methodological standards associated with these methodologies threatened to constrain and shape my inquiry in ways that may not lead to insights that assist physiotherapists to improve their clinical practises.

Interpretive Description, therefore, emerged as best methodology for my inquiry. The methodology has previously been used by physiotherapy researchers to explore physiotherapy theory and therapist practises (Olsen et al., 2013; Miciak et al., 2018). For example, Miciak et al. (2018) used Interpretive Description to explore the conditions that are needed to establish therapeutic relationships in physiotherapy practice. It has also been used by health care disciplines other than physiotherapy and nursing when the research aims involved exploring people's experiences with a view to informing applied clinical practice (Archibald et al., 2015; Chan et al., 2017; Hunt, 2009; Krywucky, 2023). When used in research by nurses and other health disciplines, the objective is to identify patterns among the experience of health care professionals that have "… *application potential, but that also remain amenable to reconsideration in the light of varying contexts, new information, and new ways of understanding* …" (Thorne et al., 1997, p172).

Interpretive Description can be used in this way by disciplines other than nursing because it is not focused on advancing the philosophical stance of its discipline of origin (Thorne et al., 1997). The type of knowledge nursing values is also like the knowledge that disciplines such as physiotherapy requires to advance its applied practices (Hunt, 2009; Thompson-Burdine et al., 2020). Similarly, I considered the methodology's adaptability and flexibility would allow me to challenge and deconstruct what physiotherapists commonly known to be true about interactions, without being encumbered by having to explain their experiences using theoretical or philosophical assumptions aligned with advancing the knowledge requirements of other disciplines.

The epistemological assumptions of Interpretive Description, therefore, resonated with the aims of my research. It is designed to answer questions derived from the field of applied health practice and would lead to findings that informed the practises of physiotherapists. My inquiry originated from my own experiences in clinical practice and my goal was to develop knowledge that would offer insights that could lead to improvements in physiotherapy practice, and potentially, patient outcomes. The methodology also recognises that people's health and illness experiences are a complex interaction between psychosocial and biological dimensions, and a subjective construction that reflects the context in which they take place (Thompson-Burdine et al., 2020). In my experience, influences on patient-therapist interactions were highly subjective and the context of the patient-therapist interaction, including many broad interrelated relational, psychological, socio-economic, and cultural factors, played an important role. Interpretive Description would enable my research findings to reflect this. Interpretive Description was also congruent with my objectives because it was unlikely that all physiotherapists would share the same interaction experiences. Although there were likely to be commonalities, there were also likely to be contradictory experiences. It was important that the methodology for my inquiry recognised the highly subjective and contextual nature of people's individual experiences and capitalised on both their commonalities and variances. Finally, an important advantage of using Interpretive Description over other methodologies was that it allowed me to capitalise on my own experiences as the framework for my research.

Part Four: Key philosophical assumptions that informed my research.

Drawing on the epistemological assumptions of Interpretive Description, the key philosophical assumptions that formed the frame of reference for my research were:

1. That peoples' subjective experiences could provide useful insights into applied clinical practice.
2. That collecting data in a naturalistic context encouraged people to share their experiences in ways that enhanced the quality of the information they provided.
3. That people's experiences were their own reality, and the subjectivity of those experiences means that their people's realities could at times be similar, and at other times, contradictory.
4. That commonalities and contradictions amongst people's experiences offered important insights into applied clinical practice.
5. That people's experiences were socially constructed and contextual, and therefore, reflect only the time and context within which those experiences took place.
6. That people's recall of their experiences would be influenced by their interaction with the researcher, and both the person and the researcher would be influenced by that interaction.
7. That the patterns interpreted amongst people's experiences represent only a tentative claim about the truth. Different researchers interpreting people's experiences might identify different patterns, and different participants might reveal different experiences.
8. That the researcher's knowledge and experiences were a valued tool to help gather information-rich accounts of other therapist's experiences, and to identify findings of clinical relevance. However, the influence of that knowledge and those experiences on the outcomes of the research must be transparent.

Part Five: Implications for my research methods

Although Interpretive Description does not impose strict methods for the inquiry, it is important that all aspects of the research align with the epistemological and philosophical assumptions of the methodology (Thompson-Burdine et al., 2020; Thorne, 2016). Due to the flexibility of Interpretive Description, the methods and design strategies from other methodologies can be used, so long as there is coherence between "*… the methodology, the research question, and the nature and scope of the Interpretive Description epistemology …*" (Thompson-Burdine et al., 2020, p337).

When selecting a sample, and collecting and interpreting the data, for instance, the logic of sampling decisions, methods of data collection, and the interpretive lens applied during the analysis, must be clearly described so that anyone reading the research can decide whether they are consistent with the epistemological assumptions of the methodology (Thompson-Burdine, et al., 2020; Thorne, 2016). The logic of sampling decisions must demonstrate how they led to a sample of participants with a sufficiently diverse range of experiences from which shared commonalities and contradictions to inform the research question could be identified (Thorne, et al., 1997). Data, similarly, must be collected in a manner that is consistent with the methodology's naturalistic inquiry axioms, and offer opportunities to identify knowledge that could lead to improvements in applied health care practices (Thorne, 2016). This imposes obligations on researchers to demonstrate that their inquiries were not only ethical, but morally defensible with the products of their inquiry having disciplinary relevance (Thorne, 2016). In practice, this also means clearly explaining in the write up why it was necessary to gather the information collected, and how this information could be used to advance the applied practices of the profession (Thorne, 2016). It follows then, that when writing up an Interpretive Description inquiry, the researcher must ensure their findings provide insights into the benefits for clinical practice and frame the findings in such a way that other members of the profession can apply them in practice (Thorne, 2016).

When using Interpretive Description researchers must also demonstrate epistemological integrity between the methodology and their interpretive processes (Thompson-Burdine et al., 2020; Thorne, 2016). In Interpretive Description, the analysis is primarily data led and grounded in the naturalistic inquiry axiom of inductive reasoning (Hunt, 2009; Thompson-Burdine et al., 2020). Researchers are therefore required to clearly describe the processes they used to transform the data into interpretations, including how their own experiences and knowledge influenced this process (Thorne, 2016; Thompson-Burdine et al., 2020). The methodology explicitly values the researcher's experiential knowledge as a fundamental source of applied practice insight and encourages the researcher to construct meaning from the participants experiences by using their own experiences and insights as part of their interpretive lens (Thorne, 2016; Thompson-Burdine et al., 2020). Together with a literature review that locates the inquiry within an existing body of knowledge, the researcher's knowledge and experiences, and theoretical allegiance and disciplinary orientation, form "*… the basis for the preliminary framework within which the investigator makes sampling, design, and analytic decisions…*" (Thorne et al., 2004, p5). Transparency and contextual awareness about the role these factors played in the methods of the research, and in particular, the transformation of the data into interpretations, is therefore, necessary to demonstrate its inductive character and epistemological integrity (Thorne, 2016).

The next chapter (Chapter Five) sets out the methods used in my inquiry, including discussing the rationale for why methods were chosen and how they are consistent with the epistemological assumptions of Interpretive Description. In Chapter Five, I also critically discuss quality considerations and describe how the requirements for credibility and rigour in Interpretive Description were satisfied.

Chapter Five – Methods

In the previous chapter, the key epistemological and philosophical assumptions of Interpretive Description were described, and the implications of choosing this methodology for my research were also briefly discussed. As suggested in that chapter, Interpretive Description does not impose strict methods for the inquiry. The researcher, therefore, can draw on methods from other qualitative methodologies, so long as they align with the epistemological and philosophical assumptions of Interpretive Description (Thompson-Burdine et al., 2020; Thorne, 2016).

The objective of this chapter is to set out my research methods, including discussing the rationale for those methods and critically appraising quality considerations to describe how credibility and rigour are demonstrated in my research processes.

The Chapter is set out in two parts. Part One describes my methods of recruitment and data collection, and the processes I used to analyse the data. Part Two explores and critically appraises quality considerations, including how credibility and rigour are demonstrated throughout my research.

Part One: Participant recruitment, data collection, and method of analysis

Recruitment and data collection

Physiotherapists were eligible to participate in my study if they were currently working in private practice in the Auckland region, held a current New Zealand practising certificate, and supported people with back to manage their condition. Physiotherapists were not eligible if they were currently employed in my physiotherapy practice or had participated in a clinical placement when I was working at the Auckland University of Technology Akoranga Integrated Health Musculoskeletal Physiotherapy Clinic as a clinical educator. Physiotherapists were excluded on this basis to reduce the likelihood that power imbalances that exist between employers and employees, or between teachers and their students. Those relationships might influence the perspectives participants shared.

Participants were recruited between February and June 2020. Approaches that were used to identify participants included placing advertisements (Appendix 6) in the online newsletters of the Auckland branches of Physiotherapy New Zealand, the New Zealand Manipulative Therapists Association, and Sports Medicine New Zealand, and directly approaching (via email and telephone) private practices in the Auckland area and inviting practice principals to participate in the study and share the advertisement for the study with other therapists working in their practice. As part of my recruitment strategy, I also approached Tae Ora Tinana, the Māori partner of Physiotherapy New Zealand, (via email and telephone) to encourage this organisation to share information about the study and the advertisement with its members. Physiotherapists practicing in Auckland who identified as Māori or Pasific were also approached (via email and telephone) and invited to become participants or share the advertisement and study information sheet with other Māori or Pasific therapists. Physiotherapists who were interested in participating in the study were invited to contact me by email or telephone to receive a copy of the study information sheet (Appendix 7). After they had an opportunity to read this, I contacted them by telephone to answer any questions they had about the study, and to ask them whether they wished to participate.

Physiotherapists who were eligible and wanted to participate were screened using pre-determined professional and sociocultural characteristics to guide the purposeful selection of a small sample of participants with a diverse range of experiences who could provide sufficient data to inform my research question. Purposeful sampling processes such as this are often used in Interpretive Description and strengthen the credibility and trustworthiness of the findings (Thompson-Burdine, et al., 2020; Thorne, 2016). I sought diversity on a range of factors that I considered would enhance the breadth of experiences captured, including their highest level of physiotherapy qualification, and number of years they had worked in private practice. I considered diversity on these factors was important because educational and clinical practice experiences can influence physiotherapists perspectives of their interactions with patients (Wainwright et al., 2011). More experienced therapists have also been found to reflect more frequently on their practises than therapists who are less experienced (Wainwright et al., 2010). Diversity was also sought on age, gender, ethnicity, practice location, and the socio-economic status that the therapists considered their patient bases to be. These sociocultural characteristics were chosen because they also influence the experiences and perspectives of physiotherapists (Lee, Sullivan & Landsbury, 2006; Yoshikawa et al., 2020).

Consistent with the assumptions underpinning Interpretive Description, these sampling strategies were informed by my clinical experiences and knowledge. Interpretive Description recognises that researchers are often the best source of knowledge about who to include in their participant sample, and that sampling decisions are subjective (Erlingsson & Brysiewicz, 2013; Thorne, 2016). When making recruitment and sampling decisions, I was also guided by Malterud, Siersma and Guassora's et al.'s (2016) recommendations for sample size and the importance of the information power of the data participants provided (Malterud et al., 2021; Malterud et al., 2016). I commenced interviewing participants and collecting data during the recruitment period, and stopped seeking more participants when I considered that I had obtained enough in-depth data to help answer my research question.

Physiotherapists who wanted to participate in the study verbally consented to participate in an interview during the telephone conversation to answer questions and discuss their eligibility to participate. Before they participated in an interview to share their experiences, the participants were again, able to ask any questions or request additional information about the study. Participants were advised that they were free to decline to answer any questions or withdraw from the interview or research at any time without disadvantage. This included the right to withdraw consent to their data being included in the data analysis, providing I received this before I had commenced analysing and comparing the data with that of other participants. All participants completed a participant demographic sheet and signed a written consent and demographic information sheet (Appendix 8).

Participants shared their experiences of supporting people with back pain to manage their condition during semi-structured face to face interviews at their places of work. Carrying out the interviews in person at their places of work is in keeping with the naturalistic inquiry axiom of Interpretive Description (Thorne, 2016). Interpretive Description consider that the quality of information participants provide is better when it is collected in manner that is respectful of the participant's comfort, and takes place in their own environment (Thorne, 2016). The participants were encouraged to share their experiences and perspectives in relation to the purpose of my research by engaging in an interactive discussion. To help encourage this discussion, I used a series of open-ended questions and prompts that followed a topical interview guide developed with input from members of my supervisory team (Table 7). Questions and prompts were designed to be open ended and encourage participants to share their experiences. Listening to the participant's responses guided additional questions or prompts that explored their views and perspectives in more detail. I acknowledge that by collecting the data in this way, that my data would be affected as the participants recall of their experiences would be influenced by my responses to their reflections and the aspects I prioritised for further prompting. During the interviews, I also took handwritten notes recording key elements of the discussion.

Table 7. Interview guide and prompts.

1. **Describe the sorts of back pain patients you see?**
   Prompts:
   - Describe number of episodes, duration, types of symptoms experienced etc.
   - Describe their disability experiences i.e. time off work, away from sport, decreased activity/social engagement etc.
2. **Describe your personal approach to managing back pain?**
   Prompts:
   - What sort of things influence your approach?
   - What sort of treatments do you like to use?
   - What sort of things do you consider when you select treatments for individual patients?
3. **Describe a typical encounter with someone with back pain?**
   Prompts:
   - What do you do and why?
   - What do you think they are hoping for and how this influences your management?
   - What do you think matters the most during your interaction with the patient?
4. **What sorts of things influence the types of approaches you choose for different patients?**
5. **What sort of information you provide to patients?**
   Prompts:
   - What sort of diagnosis do you provide?
   - What sort of information do you think patients need to know about their condition and treatment?
   - Do different patients need different information?
   - How do you provide this information?
6. **How do patients respond to your personal approach? What do you think influences their response?**
7. **What is most enjoyable about working with patients with this condition?**
8. **What is most challenging about working with patients with this condition?**

Interviews ranged between 55 and 95 minutes and were audio recorded. The recordings were transcribed by independent professional transcribers who signed a confidentiality agreement (Appendix 9). The transcribers were instructed to transcribe the interviews verbatim in as much detail as possible in accordance with naturalistic transcription principles (Edwards & Lampard, 2014; Oliver, Serovich & Mason, 2005). A list of conventions to use during the transcription was not provided to transcribers. However, they were instructed to transcribe the interviews without correcting participants grammar, and to include their pauses in speech, false starts, filler words, silences, pauses, and repetitive phrases. They were also instructed to include non-response tokens, stuttering, and overlapping talk. Transcription, however, did not include involuntary vocalisations such as coughs, sneezes, or laughter. These, and other non-verbal aspects of communication such as hand-gestures or changes in body posture, might have added emphasis to participants verbal communications. Transcription, however, needed to be pragmatic and balance the practicalities of transcribing with accuracy (Oliver et al., 2005). When transcripts were returned, I listened to the audio-files while reading transcripts to check whether they accurately reflected the contents of the audio files. Copies of the transcripts were also provided to participants to review and add to the content if they wished. This offered an opportunity for participants to elaborate or correct aspects of their experiences if they wished to do so. However, none the participants wished to offer anything further when I presented this opportunity.

Method of analysis

The process I used to analyse the data and transform the participants' descriptions of their experiences into interpretive themes followed the six-step Reflexive Thematic Analysis process first described by Braun and Clarke in 2006. (Braun & Clarke, 2006). Figure 2 illustrates this process.

Figure 2. Braun and Clarke's six-step Reflexive Thematic Analysis process

The six-steps consisted of familiarisation, coding and categorising, preliminary theme development, theme revision, refinement, and the final write-up. Reflexive Thematic Analysis is a flexible data analysis procedure that can be used with a wide range of qualitative methodologies including Interpretive Description (Braun & Clarke, 2022). The process of thematic analysis I applied was primarily data led using inductive coding. However, the flexibility of Reflexive Thematic Analysis also allowed me to combine inductive and deductive approaches when I considered this would improve the quality of my analysis. Consistent with Interpretive Description and Braun and Clarke's (2006) Reflexive Thematic Analysis process, my analysis involved using my knowledge and experiences to look for patterns within the participants experiences that allowed me to develop themes (Braun & Clarke, 2022). Coding, categorising, and theme development were therefore, constructions of the analysis process (Braun & Clarke, 2022).

My analysis of the transcripts, however, did not take place concurrent with data collection as planned. After I had performed the first three interviews, I had intended to transcribe the audio-files and analyse the transcripts to develop codes and preliminary ideas that would inform subsequent interviews. I also initially intended that the analysis of transcripts would continue in sets of three as recruitment and interviewing progressed. However, the concurrent collection and analysis of data using this pre-determined method did not turn out to be practical to implement. Challenges to performing the analysis in this way included difficulties recruiting participants, the timing of interviews with physiotherapists around their work commitments, the time taken for interviews to be transcribed, and the challenges associated with a neophyte qualitative researcher reflecting on the data and coding for the first time. Consequently, the data analysis plan was amended. After eight participants had been interviewed, and their audio-files transcribed, analysis proceeded in three broad stages using Braun and Clarke's (2006) six steps for Reflexive Thematic Analysis process as a guide. The three stages were as follows:

Stage One: Analyse first three transcripts – coding development (June -December 2020)

To commence my analysis, I performed a preliminary analysis of the transcripts for the first three interviews to familiarise myself with the process of qualitative data analysis and inductive coding. Although the nature of qualitative inquiry emphasises the importance of being open to what can be learned from the data, my initial codes were developed by drawing on a set of questions I devised to help me to engage with the data and develop a system for my preliminary coding. These questions were based on my review of the literature and my own professional experiences (Table 8). Analysis during this stage consisted mainly of concurrent familiarisation, coding, and categorising. It also included forming early conceptualisations of the latent meaning of the data. Methods of code development and organisation of codes into categories are described more fully below.

Table 8. Preliminary questions used to help with engagement and preliminary coding.

1. What sorts of things do the participants describe as influencing their patient interactions and outcome?
2. Do they describe these influences as helpful or unhelpful? Why?
3. Who is difficult to help? Why?
4. Who is easier to help? Why?
5. Does it make a difference to the outcome if someone is difficult or easy to help? Why?
6. What sorts of things do the participants describe as a source of tension or frustration? Why?
7. How do they respond to difficulties, challenges, and tensions?

Stage Two: Analyse first six transcripts (January – July 2021)

After I had engaged with the first three transcripts and developed a preliminary coding system, I analysed the first six transcripts using these codes, including reanalysing the first three transcripts.

My analysis during this stage consisted of concurrent familiarisation, coding, categorising, and sub-categorising. Codes and categories were flexible and during the analysis process I revised and refined them when the information in later transcripts revealed concepts more clearly than those I had already analysed. New codes or categories identified in later transcripts were incorporated into the coding and categorisation system to accommodate new perspectives. If new codes or categories were developed, I returned to previous transcripts in a recursive fashion to revise and recode the transcripts with reference to the new codes and categories as my analysis progressed. During this stage I also began challenging and progressing my early interpretations of the latent meaning of the data. This is described more fully below.

Stage Three: Analyse final two transcripts (July 2021 - March 2022)

The third stage of my analysis consisted of analysing the final two transcripts and challenging my coding system and early interpretations of the data. My analysis of these two transcripts again consisted of concurrent familiarisation, coding, categorising, and sub-categorising. I also developed sensitising questions and associated prompts that I used to explore the veracity of my initial categories and sub-categories, and to challenge my early interpretations of the latent meaning of the data (Table 9). These questions were developed from the interplay between my early interpretations of the data, my own personal and professional experiences, and my review of the literature. Since the final two transcripts captured the experiences of the two most experienced and qualified physiotherapists in the sample, my sensitising questions also helped me to explore whether my preliminary interpretations resonated with the experiences of therapists who have more experience and professional qualifications, and who might also reflect more deeply on their practices. Although I did not ask these two therapists to act as key informants, they were therapists who I perceived to be highly reflective and well positioned with regards to their professional experiences to provide insightful comments in relation to the research question.

Again, during this stage I revised and refined my coding and categorisation system when the data in the final two transcripts revealed concepts more clearly than the earlier transcripts. When new codes or categories were identified, I again returned to previous transcripts in a recursive fashion to revise and recode all the transcripts with reference to the new codes or categories. However, my analysis of the final two transcripts supported my preliminary interpretations and I did not develop any new categories or add any new interpretations to the latent meaning of the data. Stage Three, therefore, also helped me to determine that the density and information power of the data I had collected was adequate to enable me to stop recruiting participants and commence my preliminary theme write-up.

Table 9. Sensitising questions and associated prompts

1. **Is building a relationship important to patient outcomes?**
    - Is it associated with a positive or negative outcomes?
    - What factors are important to building the relationship?
    - Do the patient's personal characteristics influence the relationship?
    - Are relationships a source of difficulty, frustration, or tension?
2. **Is engagement important to patient outcomes?**
    - What factors undermine engagement?
    - Are people classified based on their engagement?
    - Is engagement a source of difficulty, frustration, or tension?
    - What strategies are used to overcome engagement challenges?
3. **Is meeting patient expectations associated with building a relationship and patient outcomes?**
    - What are people's expectations?
    - Are people classified based on the expectations?
    - What are the consequences of if the patient's expectations are not met?
    - Are expectations a source of difficulty, frustration, or tension?
4. **Do the patient's personal characteristics influence relationships and outcomes?**
    - What role do the patients psychological or sociocultural context play in their outcome?
    - Do those factors play a role in the therapeutic relationship?
    - Does the patient's personal characteristics influence engagement?
    - Are personal characteristics or psychosociocultural factors a source of difficulty, frustration, or tension?
5. **Is compromising with the patient necessary to build relationships and foster engagement?**
    - Does compromise play a role in outcomes?
    - How does having to compromise make a therapist feel?
6. **Are the factors associated with outcomes supported or do the more experienced therapist experiences reveal different factors?**
    - Classifying patients help match care.
    - Building relationships facilitate engagement and improves patient outcomes.
    - Promoting empowering experiences builds relationship.
    - Individualising care by meeting expectations avoids conflict and improves engagement.
7. **How is education described and does the way it is provided play a role in patient outcomes?**
8. **Do the ways therapists classify their patients influence their management decisions and outcomes?**

Six-Step Analysis Process

The six-step Reflexive Thematic Analysis process I used during the analysis was not linear. It was iterative and recursive with movement back and forth between the steps. I analysed all the transcripts myself and used the NVivo 12 Pro (QSR International) data software system as a tool for organising, coding, and categorising the data. I also stored my reflective memos in this system. The following sections describe this analysis process.

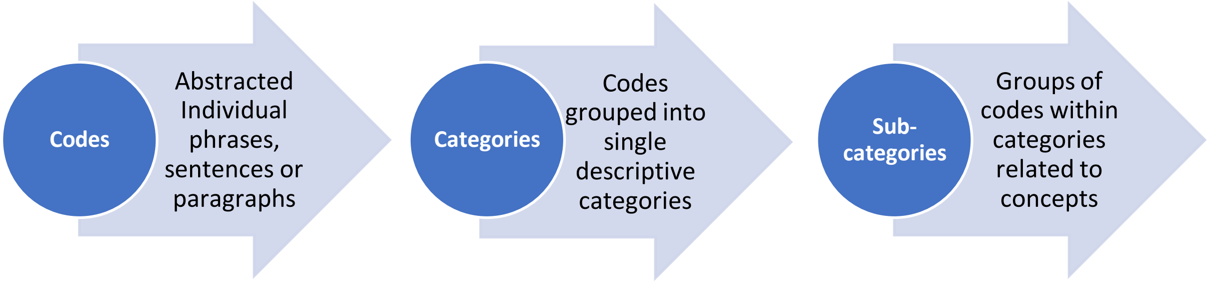
1. Familiarisation and reflective memos

Familiarisation began after each interview. I listened to each audio-file and then transcribed my handwritten interview notes into NVivo as a memo. Each memo contained a brief synopsis of the interview and recorded my immediate reflections on the interview process and the participants experiences (see Appendix 10 for an example). After each audio-file was transcribed, it was also uploaded into NVivo where I read and re-read it to gain an overall impression of the content. I also made hard copies of the transcripts and made handwritten notes in the margins or highlighted passages of the transcripts (see Appendix 11 for an example). My annotations and the sections I highlighted related to aspects of the participants experiences I considered informative in relation to the research question. Annotations were often key words or labels that described my early impressions or interpretations of the latent meaning of the highlighted passages. Many of these annotations became codes.

2. Coding and categorising

Figure 3 illustrates my coding and categorising process.

Figure 3. Coding and categorising process



Code development began during my analysis of the first transcript. As I read the transcripts, I identified individual units of data that were potentially relevant to my inquiry. Individual units of data were phrases, sentences, or paragraphs that conveyed an idea or concept. Individual units of data were then abstracted into descriptive codes. A sample of an individual unit of data that was extracted, and its abstracted label (code) is provided in Table 10 below.

Table 10. Example of categorising, and latent/interpretive sub-categorisation

Interpretive sub-categorisation	**Descriptive categorisation**	**Abstracted code**	**Extracted individual meaning unit**
Building relationships	Strategies for managing patients.	Trust and confidence	*"… I think it is of huge importance for me to actually build that trust and confidence … if I haven't built rapport … trust … or confidence with them … then they may not believe me or take …* [my advice]*…on board..."* (A)

The sensitising questions I asked of the data to identify individual units of data are described in Table 9 above. Abstracting involved studying the individual meaning units and interpreting what is relevant in the unit (in relation to the research question) and then writing a label for that interpretation. Labels were words or phrase that became codes. Although primarily data led, abstracting codes in this way involved both inductive and deductive processes. It involved constant interplay between making observations based on my own knowledge and experiences and interpreting the data to construct meaning related to the research question. Coding was therefore not only semantic and descriptive, but also latent and interpretive. During repeated engagement with the transcripts, coding and abstraction became more latent and interpretive as I moved beyond descriptive labelling towards coding that represented underlying ideas or concepts that would help me explain the data.

I used NVivo to extract and organise the individual units of data related to each code. Extraction enabled me to assemble all data relating to similar ideas or concepts in one place. I then used the same process during the analysis of subsequent transcripts to identify individual units of data that conveyed similar meaning. The process was iterative and reflexive with frequent code revision and development. Codes were revised and refined when data was encountered that revealed concepts more clearly than in earlier transcripts. New codes identified in later transcripts were integrated into the coding system to accommodate new perspectives. Previously analysed transcripts were then recoded with reference to the new codes. In this way the coding system expanded or contracted as my interpretations and insights into the data shifted.

As I developed the codes, they were grouped logically into descriptive categories. Each descriptive category contained groups of codes that I interpreted as describing individual units of data that discussed related ideas or concepts. Many codes featured in more than one category. Categories were initially temporary and were modified or renamed as the analysis progressed. Some of my initial categories were either abandoned or merged together with other categories to improve clarity. They also evolved reflexively with the development of multiple hierarchical sub-categories. Sub-categories captured codes that related to particular aspects of the main category description and were more interpretive or conceptual. Depending on sub-category content, sub-categories also contained additional levels of hierarchical sub-categorisation to assist with organising content. Descriptions for the final five categories that I developed are contained in Table 11.

Table 11. Categories and descriptions

Strategies	Strategies participants described to manage people with back pain.
Challenges or difficulties	Challenges or difficulties participants encountered during clinical consultations.
Factors contributing to positive outcomes	Factors participants considered were positive influences on clinical interactions and outcomes.
Factors contributing to negative outcomes	Factors participants considered were negative influences on clinical interactions and clinical outcomes.
Frustrations and tensions	Factors participants considered were sources of frustrations and tensions with patients during clinical interactions.

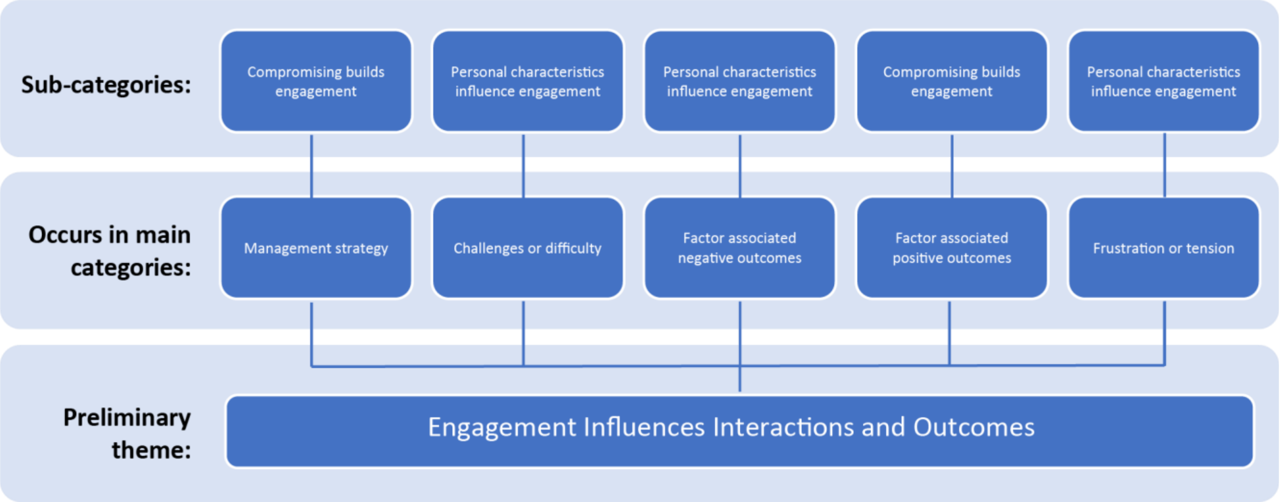
Grouping codes together in this way laid the foundation for developing an initial theoretical scaffold from which I could form more cohesive interpretations of the participants experiences. The development of sub-categories illustrates how I moved away from descriptive labelling towards a deeper latent and interpretive analysis of the data. As with the coding process, I developed initial categories and sub-categories during the analysis of the first transcript. Sub-categories also developed reflexively and iteratively to reflect refinements that took place as I analysed more transcripts and categories or related sub-categories expanded, contracted, or were renamed as my interpretations and insights into the data evolved. Table 10 provided an example of an individual meaning unit I extracted, and demonstrates how it was abstracted and coded, descriptively categorised, and then sub-categorised according to a more latent interpretation. A copy of the final scaffold of all categories, sub-categories, and codes can be viewed in Appendix 12.

3. *Preliminary theme development*

Sub-categorisation became an early form of latent interpretation of the meaning of the data. However, to move beyond this form of latent interpretation towards constructing preliminary themes, I analysed the coding and sub-categorisation system using the research question as my guide. Although my coding system identified many unique influences on patient-therapist interactions, I considered that groups of codes that occurred frequently might be describing important and related units of data that can be interpreted to illustrate broader concepts or ideas.

Therefore, I explored each of the five descriptive categories to identify groups of codes that occurred frequently across the dataset. Once I had identified these potentially insightful groups of codes, I constructed a mind flow diagram to help me reflect on similarities and differences and interpret the relationships amongst the frequently occurring groups of codes and their parent sub-categories. A picture of this mind flow diagram can be viewed in Appendix 13. Constructing a mind flow diagram helped me to identify five main groups of codes that I interpreted as being related and that illustrated broader concepts or ideas. Using NVivo, I extracted and condensed the individual meaning units of data related to these codes and labelled them interpretively using phrases that I considered best captured the meaning of the condensed data. These labels became my preliminary themes. Figure 4 illustrates an example of the process of identifying sub-categories across the categories that contained containing frequently occurring codes, leading to the development of preliminary themes.

Figure 4. Illustration of the process leading to the development of preliminary themes



My preliminary themes were therefore constructed at the intersection of the data and my theoretical and conceptual understandings of the phenomena I was exploring. They were also influenced by my skill and experience applying Reflexive Thematic Analysis for the first time. I made observations and inferences based on the frequency with which participants discussed particular aspects of their experiences. The observations and inferences I made about the meaning of these aspects of the data were based on the scaffold of knowledge provided by my own experiences, and also from what I had learned about the subject from carrying out the literature review. The preliminary themes were constructed from the interplay between these two processes and do not represent everything that is contained within the data. They reflect aspects of the data that I considered important and were influenced by my ability to recognise patterns and apply meaning to the data using Reflexive Thematic Analysis as a novice qualitative researcher.

4. Themes revision and write-up

Revision of the preliminary themes occurred iteratively and recursively during preliminary theme development and their write-up. To help me explore whether the preliminary themes adequately captured the meaning of the data, and represented latent interpretation, I created a thematic map to help my developing interpretations. A copy of this thematic map can be viewed in Appendix 14. I also wrote summative descriptions for each preliminary theme setting out their key central organising concept, conceptual boundaries, and contents. These can be viewed in Appendix 15. During this process, the preliminary themes were reviewed and revised individually and together. Using the research question as my guide, they began to be shaped and clarified to ensure they captured my interpretation of the latent meaning underlying the participants experiences. This included checking that the preliminary themes were supported by the abstracted codes and extracted units of data. I also reflected on whether each theme's central organising concept captured the meaning of the abstracted and condensed data. It also included reflecting on whether the central organising concepts provided a meaningful insight that was related to the research question. During these reflective and iterative processes, a preliminary version of my interpretive themes was shared with the supervision team. I reflected on the comments and feedback they provided on the content and meaning of the preliminary themes resulting in further revision and refinement of my themes.

5. Theme refinement, and naming

During the final step of my data analysis, I revised and rewrote the preliminary themes as I continued to refine, shape, and explore their veracity. During this process, I reflected on important questions in relation to the development of the themes and my research question such as:

1. Could each theme be clearly articulated to provide useful information in relation to the research question?
2. Did each theme adequately capture the interpretative meaning of the individual meaning units of data they described?
3. Were the themes related to each other i.e. was there a central linking idea that could be applied across all of the themes to illustrate their connectedness?

4. If there was a central linking idea, was it one that provided useful information in relation to my research question?

During the theme refinement, individual quotes were incorporated into my writing to illustrate my interpretations and the meaning of each theme. Identifying and integrating quotes helped me to clarify theme definitions and define each theme's individual central organising concept and conceptual boundary. Identifying quotes that appeared to illustrate more than one theme also assisted me to identify relationships between themes that led to the development of the idea that my themes were interconnected (see Chapter Six). Given the close relationship between the purpose of my research and the themes I developed, I considered that my research question had helped me to identify findings that would assist physiotherapists in their daily practice. The theme write up was revised and again shared with members of my supervisory team for comment and discussion. Their comments on the contents, appropriateness, and veracity of the themes were considered, resulting in further revision, and renaming of my themes using a more interpretive orientation.

Part Two: Quality Considerations

To ensure that my recruitment procedures, data collection methods, and interpretive analysis provided credible insights into factors that physiotherapists perceive influence interactions with patients, and potentially, impact their practices, I was guided by Thorne's (2016) principles for how to demonstrate rigour in an Interpretive Description inquiry. Thorne (2016) suggests there are four main evaluative criteria against which the processes and products of an Interpretive Description inquiry will be judged. The four main guiding principles are: epistemological integrity, representative credibility, analytical logic, and interpretive authority. However, because the methodology is designed to generate knowledge within the applied practice disciplines, Thorne (2016) also suggests credibility is dependent on other considerations such as moral defensibility, disciplinary relevance, pragmatic obligation, contextual awareness, and whether findings demonstrate a probable truth (Thorne, 2016).

When deciding on my research methods and considering how I would embed credibility into my processes and findings, I also gained further insight into how rigour is demonstrated from Tracy (2017) and Graneheim and Lundman (2004). These authors suggested that in addition to credibility, trustworthiness in qualitative research is also determined by sincerity and dependability (Graneheim & Lundman, 2004; Tracy, 2017). Tracy (2017 explains that sincerity is related to notions of authenticity and genuineness and researchers can demonstrate this by being transparent about how their "…*biases, goals, and foibles … play[ed] a role in the methods, joys, and mistakes of the research*…" (p841).

Epistemological integrity

The first of Thorne's (2016) guiding principles for evaluating the processes and products of an Interpretive Description inquiry is that the methods must be congruent with the theoretical constructs of the methodology. For findings to be credible:

> "… the research process must reveal a … question that is consistent with the stated epistemological standpoint and …[the] … interpretation of data sources and interpretive strategies …[must] … follow logically from the question…" (Thorne, 2016, p 233).

Interpretive Description was chosen as the vehicle for my inquiry because its epistemological assumptions were congruent with my aims and desired research output. My question originated from my own experiences in clinical practice and was consistent with the methodological assumptions of Interpretive Description. The methodology is designed to help researchers answer questions that are derived from the field of applied health practice, and, by exploring the subjective experiences of a group of physiotherapists, I hoped to be able to identify commonalities and variances amongst their experiential knowledge that would provide insights that lead to improvements in physiotherapy practice. Based on my own experiences, interactions between patients and therapist were also a subjective construction reflecting the context in which the consultation takes place, including considerations of psychological, socio-economic, and cultural factors. This again reflects the philosophical assumption of Interpretive Description that people's health and illness experiences are a subjective construction that reflects the complex interaction between psychosocial and biological dimensions.

The interpretive strategies that I used to transform the participants experiences into meaningful patterns during my data analysis also flowed logically from my question and were congruent with Interpretive Descriptions' philosophical standpoint. My analysis was primarily data led and grounded in the naturalistic inquiry axiom of inductive reasoning. I clearly described the processes I used to transform the data, including demonstrating my self-reflexivity by exploring how my own knowledge and experiences, disciplinary perspectives, and the review of the existing literature, influenced my interpretive lens. Prior to commencing data collection for example, I participated in a pre-assumptions interview with a member of my supervisory team using my interview guide. From this, I wrote a reflective statement that captured aspects of my own beliefs and experiential insights (see Appendices 4 and 5).

These processes made transparent my knowledge and beliefs about the study field, and my personal beliefs about the factors that influence patient-therapist interactions. They were also necessary to demonstrate my sincerity. Tracey (2017) suggests that sincerity in qualitative research is related to notions of authenticity and genuineness. Interpretive Description explicitly values the researcher's experiential knowledge as a fundamental source of applied practice insight and encourages the use of their knowledge and insights as part of their interpretive lens (Thomson-Burdine et al., 2020). However, for findings to be considered authentic and genuine, researchers must demonstrate self-reflexivity and ensure the reader can determine for themselves the extent to which the researcher's experiences have influenced their interpretations (Tracy 2010, p841).

Other ways my research processes demonstrate epistemological integrity include the clear description of how Braun and Clarke's (2006) six-step Reflexive Thematic Analysis process were used to transform the participants perspective into interpretive findings. Braun and Clarke's (2006) process were congruent with the methodology because it is primarily data led and relies on inductive coding (Braun & Clarke, 2022). It's flexibility also allowed me to make observations based on my own knowledge and experiences, while simultaneously interpreting the participants perspectives in relation to the research question (Braun & Clarke, 2022). This is consistent with the philosophical assumption that in Interpretive Description, the researcher and participants co-construct the research findings (Thorne, 2016).

My methods of selecting a representative sample of physiotherapists were consistent with the underlying assumptions of Interpretive Description. Purposeful sampling, using characteristics that led to a sample with a broad range of experiences, resulted in a sample with sufficient diversity, to ensure my findings would have meaningful application to physiotherapy practice. Data collection also took place in a manner that was consistent with the naturalistic inquiry axioms of Interpretive Description. Finally, by acknowledging that the experiences the participants shared may have been influenced by the attention I paid to various aspects of their experiences, the method of data collection also reflected Interpretive Description's philosophical assumption that an inseparable interaction takes place between the knower and the known (Thorne, 2016). In Interpretive Description, the researcher and the participants influence one another during the research and co-produce the findings (Thorne, 2016).

Representative credibility

The second principle guiding the evaluation of Interpretive Description research is representative credibility (Thorne, 2016). Demonstrating representative credibility requires that:

> "… any theoretical claims the researcher purports to make … [must be] … consistent with the manner in which the phenomena under study were sampled…" (Thorne, 2016, p234).

Representative credibility is associated with the concept of data adequacy and includes consideration of the appropriateness of the sample as well as the methods used to collect the data (Malterud et al., 2021; Thompson-Burdine et al., 2020). Demonstrating representative credibility is a key quality consideration of the methodology because it is premised on the assumption that people's experiences are highly subjective, and the commonalities and contradictions amongst them, potentially, offer important insights (Thorne, 2016). Demonstrating representative credibility, therefore, requires the logic of sampling decisions and decisions regarding the adequacy of the data to be transparent so that the reader can determine for themselves whether the sample was representative and included participants with a sufficiently broad range of experiential perspectives (Thompson-Burdine, et al., 2020; Thorne, 2016). Representative credibility also requires congruency between the methods used to collect data, and the epistemological constructs of the methodology (Thompson-Burdine et al., 2020).

The representative credibility of my findings is supported by the processes I used for selecting my study participants and the manner of the data collection. For instance, by screening professional and sociocultural characteristics of therapists who responded to my advertisement, I was able to identify a small sample of participants who demonstrated diversity on a range of characteristics that improved the likelihood my sample would provide a sufficiently broad range of experiential perspectives to inform my research question. My sample demonstrated diversity on characteristics such as professional qualifications, age, gender, years in private practice, practice location, and socio-economic status of their patient base. Earlier research has suggested that these are important influences on the experiential perspectives of physiotherapists (Lee et al., 2006; Wainwright et al., 2010; Wainwright et al., 2011; Yoshikawa et al., 2020). Purposeful sampling in this way is often used in an Interpretive Description inquiry to strengthen representative credibility and improve the information power of the data (Malterud et al., 2016; Thompson-Burdine, et al., 2020).

The size of my sample also does not adversely influence my research because sample sizes in Interpretive Description are often small. Smaller samples do not affect representative credibility if the information power of the data is high (Malterud et al., 2021; Malterud et al., 2016). However, although the processes I used to identify a sample improved representative credibility, it does not follow that other physiotherapists would share my participant's perspectives. Interpretive Description recognises that "… *reality involves multiple constructed realities*…" (Thorne, 2016).

Therefore, if other therapists, or a larger sample of therapists, from the region had participated in my research, they may have offered different perspectives.

My data collection processes also enhanced representative credibility. These processes have been clearly described in the methods above. For instance, data was collected during semi-structured interviews that were respectful and carried out in the comfort of the participants places of work. The interview guide and prompts used to elicit the participants experiences, and an example of an interview transcript, are included in the write-up of the research to make transparent how my interviewing methods may have influenced the data (Table 7 and Appendix 11). The interview guide was based on my own experiences and was informed by my review of the literature. It was intended to prompt participants to share their own experiences. However, during interviews, the participants responses guided additional prompting and questioning. Therefore, although the guide and interview process were designed to encourage participants to share their own experiences, my in-the-moment prompting could have encouraged them to share perspectives consistent with my pre-existing knowledge or beliefs. However, in an Interpretive Description inquiry, it is acknowledged that the researcher and participants influence each other. Providing the interview guide and transcript extract ensure transparency and allow the reader to determine for themselves the extent to which my prompting may have influenced the data. It is also acknowledged that temporal, spatial, and situational factors may have influenced my data collection. If participants had been interviewed at a different time or on a different day, or, at a venue that was not their place of work, they may have expressed different views.

Analytic logic

The third principle guiding the evaluation of an Interpretive Description inquiry is analytic logic (Thorne, 2016). To ensure that the researcher's interpretations of the participants experiential perspectives provide credible insights, Thorne (2016) states that:

> "… the decision-making process used throughout the conduct of the study must be rendered sufficiently accessible that the research consumer can assess its adequacy…" (Thorne, 2016, p 234).

Analytic logic is of particular importance in Interpretive Description because unlike other constructivist-interpretivist methodologies, the methodology is not tied to a single methodological source (Thompson-Burdine et al., 2020). The integrity of the inquiry therefore:

> "… rests on the shoulders of the researcher … [to] … adequately account for their decisions: choosing what to include, what to leave out, what to notice, and what to ignore…"

> (Thompson-Burdine et al., 2020, p342). Analytic logic is also associated with the concepts of credibility and dependability and in essence, means clearly describing the inductive reasoning process used to transform data into interpretive findings (Thorne, 2016).

To assist the reader to assess the adequacy of my analytic logic, I provided an audit trail of each step of Braun and Clarke's (2006) Reflexive Thematic Analysis process in my description of my research methods. For instance, I have included the preliminary questions I applied when I initially read the transcripts. These questions allow the reader to assess the veracity of my initial coding. Similarly, an example of an extract from an interview transcript, including the annotations I made on the transcript is also provided. From this, the reader can view the passage, see the phrases or other individual units of data I considered important, and assess for themselves whether my coding of the data is supported. I also included illustrative examples in my description of my coding and categorisation processes. In addition, the final system of codes, categories, and subcategories I developed has been provided (Appendix 12). Revealing this information, together with the description of the sensitising questions that I used during the third stage of data analysis to explore the veracity of my coding and categorisation, assists the reader to assess the logic and dependability of my process.

The audit trail I embedded within my analysis process also includes a description of the reasoning process I used to search for patterns of meaning within the data. It includes a description of how I identified groups of frequently occurring codes and the mind flow and theme diagrams that I used to construct relationships among the codes. Again, copies of these documents are included (Appendices 13 and 14) so that the reader can explore their logic and dependability themselves. Finally, as described previously, my analytical process included being self-reflective. To assist the reader to determine the adequacy of my self-reflections, I have included copies of the pre-assumptions interview and reflective statement (Appendices 4 and 5). These documents help make transparent my knowledge and beliefs about the study field, and my personal beliefs about the factors that influence patient-therapist interactions. Providing these documents, enables the reader to assess my sincerity and, evaluate whether my own biases and experiential perspectives played a role when I interpreted the participants experiences.

Interpretive authority

The fourth of Thorne's (2016) principles guiding the evaluation of an Interpretive Description inquiry is interpretive authority. For the products of Interpretive Description inquiries to be considered credible and dependable:

> “… the researcher’s interpretations … [must] … reveal some truth external to his or her own bias or experience …” (Thorne, 2016, p235).

Interpretive authority is important to credibility because of the recognition that in an Interpretive Description inquiry, the researcher’s knowledge and experiences are recognised as a valuable source of applied practice insight that can be used to shape understandings of the participants experiences (Thompson-Burdine et al., 2020). However, before the researcher’s interpretation of the participants experiences can be considered to reveal a truth external to his/her own perspectives, the researcher is required to demonstrate self-awareness of how their own values, opinions, and experiences influenced their interpretations (Graneheim, Lindgren, & Lundman, 2017; Thompson-Burdine et al., 2020).

To assist the reader to evaluate whether my interpretations revealed a truth that is external to my own perspective, prior to commencing the data collection I participated in a pre-assumptions interview using the same interview guide that I used when interviewing participants. I also wrote a reflective statement making transparent my own knowledge and beliefs about the study field, and the professional education and discipline perspectives I held as a member of the physiotherapy profession. They also made visible my personal beliefs about back pain, and the factors that in my experience, influenced patient-therapist interactions. During the process of selecting a research paradigm and methodology, I also reflected on my professional identity, theoretical allegiances, and disciplinary orientation (see Chapter Three). These self-reflexive processes helped make transparent how my professional identity could influence my interpretive frame of reference.

Throughout the research, my supervisory team also acted as an important reflexive check on interpretive authority. For example, after I participated in the pre-assumptions interview, I shared the transcript and my reflective statement with my supervisors. The open dialogue that followed helped me to recognise how my own experiences might influence my research processes and interpretive lens. During the development of the interview guide itself, my supervisors also provided feedback on the content. Their feedback offered insights into how my own experiential perspectives influenced my questions and prompts, and in turn, how those questions and prompts influenced the types of information my interviews were likely to yield. Checks on my interpretive authority from my supervisory team can also be seen during data analysis. During the first stage of the analysis for instance, one of my supervisors listened to an interview audio-file and read the transcript. We then discussed my interpretations of the content, and how my interviewing method might have influenced the perspectives shared by the participants.

The veracity of my initial coding and categorisation was also discussed with my supervisory team to ensure my early interpretations could be supported by data. After both the first and second stages of data analysis had been completed, my coding and categorising, and my early preliminary interpretive themes, were also provided to my supervisory team for discussion and feedback. The open dialogue that followed acted as an important check on the veracity of my coding, categorising, and sub-categorising, and my preliminary interpretations of the latent content of the data. Throughout the three steps of theme development, early drafts of the developing themes, together with illustrative quotes, were similarly shared with my team to allow them to comment on my interpretive authority. Their feedback on my interpretations and the veracity of the themes led to further reflections on how my experiences might be influencing my interpretations, and also whether my interpretations could be supported by the data itself. These were all important steps that support interpretive authority and the credibility of my interpretations.

Other ways interpretive authority is demonstrated include my process of documenting reflexive memos after each participant interview (Appendix 10). These memos captured my reflections on the process of interviewing and how I could improve future interviews. However, they also captured my reactions to the perspectives the participants shared. For example, many of the participants shared their personal beliefs about the nature of back pain, and confided the difficulties they experienced interacting with patients with the condition. When those beliefs were inconsistent with my own, it was challenging for me to listen without offering suggestions to improve their understandings, or to provide them with advice on how they could enhance their clinical relationships. As the data collection progressed, these memos, therefore, became an important reflexive tool that helped me recognise the ways that my own opinions, and experiences were influencing my research processes and, potentially, my interpretations. During my data analysis, I returned to these memos from time to time to ensure the coherence of the narratives were retained during my analysis, and to reflect on the similarities between my early interpretations and those that developed as my analysis progressed.

Other quality considerations

Thorne (2016) suggests that because Interpretive Description inquiries are designed to generate knowledge within the applied practice disciplines, there are also other quality considerations. For example, the information that is collected must be morally defensible and the product of the inquiry must have disciplinary relevance (Thorne, 2016). The obligation of moral defensibility means that information collected must be for the purpose of benefitting people within clinical practice, and the findings that emerge from this information must also have disciplinary relevance (Thorne, 2016). In the Introduction (Chapter One), I outlined the need for my inquiry, and described the potential implications of the findings for physiotherapy practice. This included describing the importance of collecting information from physiotherapists to understand factors that influence their interactions and impact their practice behaviours. The information can be used to help inform ways to improve interactions between people with back pain and physiotherapists and inform strategies to support the implementation of bio-psychosociocultural approaches in this health context. Identifying and recommending ways to improve interactions and support people from a bio-psychosociocultural perspective and implementing those recommendations could improve outcomes for people with back pain who consult with physiotherapists. Given the enormity of the problem that back pain presents to the New Zealand health system, and the role that physiotherapists play in supporting people with the condition, the information collected was morally defensible, and the potential findings are of disciplinary relevance.

When writing up findings of an Interpretive Description inquiry Thorne (2016) also suggests that researchers have a pragmatic obligation to frame their findings as though they would be applied to practice (Thorne, 2016). This includes discussing the benefits to applied practice and the potential harm that could be caused if the findings are applied out of context (Thorne, 2016). The write up of the findings should also demonstrate contextual awareness in the sense that the findings acknowledge that the researcher's interpretations of the data may be a social construction that is only shared by others in the field by virtue of a set of "…*invisible yet shared assumptions…*" (Thorne 2016, p237). The findings might, therefore, be contradicted in future research if it is carried out by another researcher who has different disciplinary perspectives (Thorne, 2016).

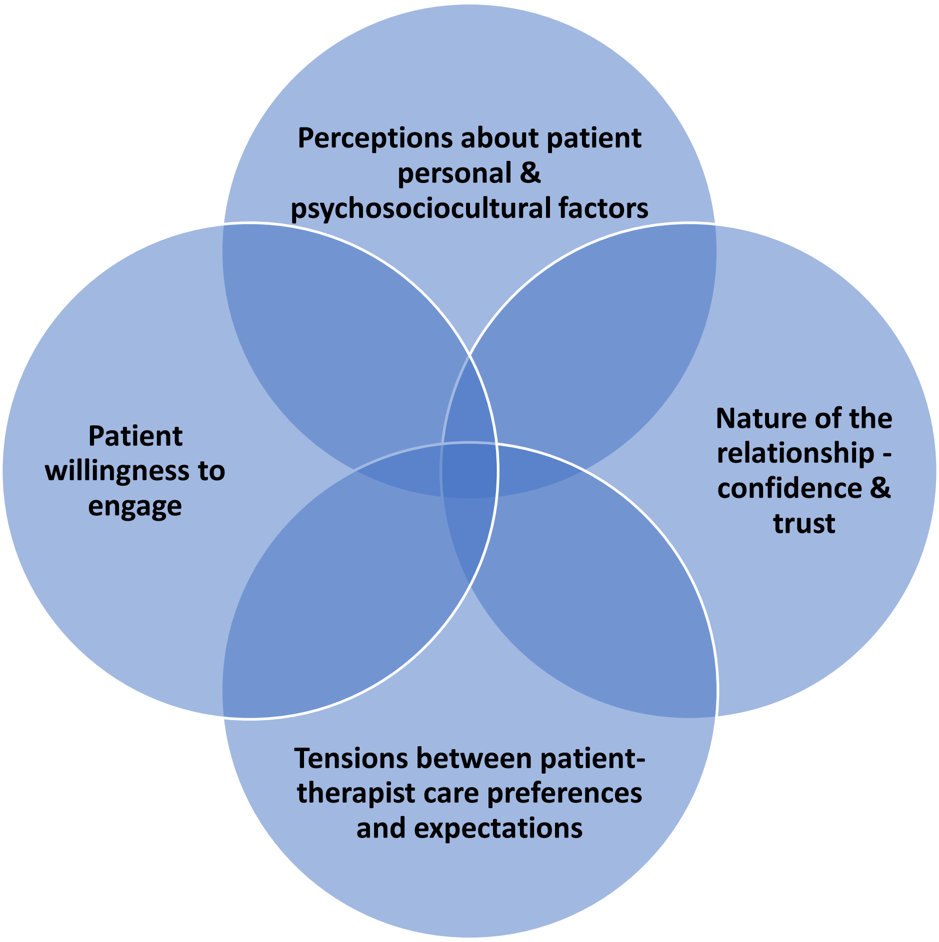
Contextual awareness also requires that the write up of an Interpretive Description inquiry acknowledges that the participant's experiences may be uniquely reflective of the social or contextual context in which they took place (Thorne, 2016). Experiential perspectives are complex, contextual, and ultimately subjective. The findings of Interpretive Description inquiries can only constitute only a tentative claim about the truth of people's experiences (Thorne et al., 2004). Therefore, the participants might express different views if they had been interviewed at a different time or on a different day, or, if the interviews had taken place at another location. It is also possible that if different participants with experiences that evolved in different social contexts contributed their perspectives, the findings might provide different but equally important insights into clinical practice (Thorne et al., 2004). The reader of Interpretive Description research must be left in little doubt after reading the write up that the *"… knowledge provided by the research is at best a probable truth …* [or simply] *… the best we have available until we are confronted with compelling reasons to abandon it…"* (Thorne, 2016, p238).

This objective of the next chapter (Chapter Six) is to set out my interpretive of the participants experiences and perspectives of supporting people with back pain to manage their condition, and the four themes I constructed during my analysis. After reading my findings and the two chapters that follow (Chapter Seven: Discussion and Chapter Eight: Clinical Implications), the reader can determine for themselves, whether the write up of my inquiry satisfies these final quality considerations.

Chapter Six: Findings

In the previous chapter, I described and critically reflected on the methods used in my research including the Reflexive Thematic Analysis process I used to analyse the data and transform the participants perspectives into interpretive themes. By analysing the latent meaning of the participants perspectives, shared patterns of meaning were interpreted that captured four key aspects of perceived influences on patient-therapist interactions. Those interpretations formed a framework for the development of four themes that provide insight into perceived influences on patient-therapist interactions, and potentially, barriers to supporting people with back pain from a bio-psychosociocultural perspective in physiotherapy practice. Those themes and their overlapping dimensions are set out in the diagram below.

Figure 5. Themes – Influences on patient-therapist relationships



The objective of this Chapter, therefore, is to describe the participants and set out my interpretive findings. Part One contains a description of the study participants. Part Two describes the participant's general perspectives about supporting people with back pain in private physiotherapy practice, and the approaches they used to manage the challenges they encountered. Part Three describes the four themes I interpreted from the participants experiences. This includes describing the strategies used to navigate interaction challenges. Part Four summarises my interpretive findings.

Quotation notes:

1. The conventions for transcription of the interviews have been outlined in Chapter Five. While interviews were transcribed verbatim in accordance with naturalistic transcription principles (Edwards & Lampard, 2014; Oliver et al., 2005), the quotes used throughout this Chapter reflects denaturalism approaches to transcription (Oliver et al., 2005). When interviews are transcribed using denaturalism approaches, accuracy concerns the substance of the interview, that is, the meaning and perceptions created and shared by participants during their interview (Oliver et al., 2006). Quotes used to emphasise points, therefore, have pauses, false starts, filler words, silences, repetitive phrases, overlapping talk, and non-response tokens removed to ensure the meaning of the extracted passages is clear. Where necessary, grammar has also been corrected or linking words or commas inserted to ensure readability. Adopting this approach when displaying the participants actual words adds emphasis to the interpretive meaning of the text (Oliver et al., 2005).
2. Throughout my write-up of the findings, where quotes as used, participants are referred to by a number that denotes the order in which they were interviewed i.e. the first participant interviewed is referred to as "*the first participant*, the second participant interviewed as "*the second participant*" and so on.

Part One: Study participants

Eight physiotherapists (four males and four females) participated in interviews. A summary of their demographic data is contained in Table 7.

Table 12. Participant demographic data

Participant	Age	Gender	Ethnicity	Post qualification experience	Highest professional qualification	Practice location	Patient socioeconomic status
One	33	Female	European/Pakeha	10-years	BHSc(Physio)	Suburban	Mixed
Two	34	Female	European/Pakeha	11-years	BHSc(Physio)	Urban	High
Three	59	Female	European/Pakeha	38-years	DipMT	Urban	Mixed
Four	35	Male	European/Pakeha	12-years	BHSc(Physio)	Suburban	Mixed
Five	24	Female	European/South African	5-months	BHSc(Physio)	Mixed	Low
Six	38	Male	European/Pakeha	17-years	MHSc/MHPr	Suburban	Low
Seven	32	Male	European/Pakeha	2-years	BHSc(Physio)	Urban	Mixed
Eight	28	Male	European/English	5-years	BSc(Physio)	Urban	Mixed

BHSC(Physio) = Bachelor of Health Science(Physiotherapy); BHSc = Bachelor of Health Science; DipMT = Diploma Manual Therapy; MHPr = Master of Health Practice; MHSc – Master of Health Science; BSc(Physio) = Bachelor of Science(Physiotherapy).

Participants ranged in age between 24 and 59 years with the youngest participant having the least amount of clinical experience (5 months) and the oldest participant the most (38 years). Five participants completed their undergraduate physiotherapy training in New Zealand at the Auckland University of Technology (Bachelor of Health Science (Physiotherapy)), one completed training in the United Kingdom (Bachelor of Science (Physiotherapy)), one at the University of Otago (Bachelor of Health Science (Physiotherapy)), and one participant obtained a Diploma in Manual Therapy from the Auckland Institute of Technology prior to its establishment as the Auckland University of Technology. Two of the participants had Auckland University of Technology Master of Health Science postgraduate physiotherapy qualifications, with one of those participants also having a Master of Health Practice in Musculoskeletal Physiotherapy from the same institution.

All participants considered themselves to be of European ethnicity, with six describing themselves as New Zealand-European. None of the participants identified as Māori or Pacific. Four of the participants worked in urban private physiotherapy practices with patients of either mixed or high socioeconomic status. Four worked in either suburban or mixed practice locations with patients of either low or mixed socio-economic status.

Part Two: Supporting people with back pain in private physiotherapy practice.

Participants' perspectives about supporting people with back pain reflected their belief that back pain is inherently a complex condition, and that supporting people to manage their condition could also be challenging. Participants considered back pain to be complex because it could be difficult to identify the cause of people's symptoms. In their experience, the absence of specific diagnostic-curative treatment pathways often undermined their patient's confidence in them during consultations. Diagnostic uncertainty coupled with recalcitrant symptoms and a history of unsatisfactory experiences with other health care professionals also contributed to the complexity of people with the condition and were sources of interaction tension.

Establishing therapeutic relationships within this context was considered challenging, particularly when participants believed their patients had challenging personal or psycho-sociocultural characteristics, non-evidence-based beliefs about the condition, and unrealistic treatment expectations. These tensions and challenges were sources of discomfort during consultations and participants resigned themselves to providing treatments that aligned with their patients' expectations to avoid undermining their relationships. These experiences, and the compromises they made, left participant's feeling frustrated, disappointed, and disheartened. It is within the context of these tensions and complexity that many, if not all, patient-therapist interactions take place.

Participants *e*xperiences in practice helped them develop a range of strategies to manage the complexities and challenges they encountered during interactions. A key strategy many participants used involved categorising patients using a broad range of biophysical and psychosociocultural factors. As the third participant explained:

> *"… you classify people on a continuum … and then once you start to assess and treat them, you keep sub-classifying them into different areas that you think are contributing to the condition and strategising or targeting different aspects of it…"*

Participants categorised their patients using many features of their presentations. Those features included: a) people's physical presentation characteristics; b) their personal characteristics; c) their condition beliefs and treatment expectations; d) their psychosociocultural context; and e) the participants perception of the patient's willingness to engage in a relationship and with physiotherapy care. Using combinations of these features patients were categorised into two main categories. The first category were patients who had easily identifiable symptom causes and simple biomechanical presentation characteristics. These patients did not have many additional complicating features:

> *"… some patients have … straightforward back pain… that has a clear mechanical pattern to it .… for example clearly worse with flexion or with extension … and their injury history clearly fits with that pattern … and they don't use catastrophising language and there are no indications that they are anxious…"* (Third participant)

In the participants' experience, patients in this category were more likely to have successful outcomes:

> *"… they respond well and tend to get better fairly quickly … they have no fear avoidance, low, levels of pain … they respond to mechanical diagnosis and therapy assessment … we can straighten them up … and get them back to work … it's usually just axial back pain …"* (Sixth participant)

The second category were patients who were considered more complicated and challenging. It was more difficult to identify symptom causes, and biomechanical presentation characteristics were less distinct for these patients. Participants believed that patients in this category also had more challenging personal characteristics, condition beliefs, emotional needs or psychosociocultural contextual features. Patients included in this category were also considered difficult to engage with and participants believed they were reluctant to actively participate in their own care. Within this category, there were many sub-categories of patients with different, but equally challenging, contextual features:

> *"…there are about four subcategories in the complex group that I would identify based on their psychosocial status … Anxious Annies … a lot of anxiety, kinesiophobia, fear avoidance … Depressive Dans … they are depressed and have suicidal ideation … Angry Andys, they are boom busters … hard workers … scared about the future. And they battle with you. … and there is another other group linked to the injustice of ACC …"* (Sixth participant)

Participants reflected that there was clinical utility in using this approach. It assisted their understanding of factors contributing to the patient's presentation and helped them to individualise their approach to care. Categorising appeared to be a tool to aid their decision-making, with the end goal being to improve patient outcomes:

> *"…you categorise them to make your job a little bit easier and improve their outcome … you don't treat everybody in a category the same way… they are all individuals, and they are going to have their own things that will be influencing why, or how much pain or disability they are experiencing … categorising helps you understand that …"* (Fourth participant)

Patients were however also categorised to help inform participants about the patient's likely prognosis, and to assist them in deciding how much time and emotional energy they should invest in the patient's care.

Exploring ways participants categorised their patients helped me to construct four inter-related themes that captured my interpretations of key factors influencing patient-therapist interactions. The first theme reflects the perception that the patient's personal characteristics and psychosociocultural context played an important role during interactions. The second refers to the belief that interactions are influenced by the nature and quality of the therapeutic relationship. Patient-therapist interactions and physiotherapy outcomes may be dependent on patients and therapists collaborating in relationships based on confidence and trust. The third suggested that patient-therapist interactions, and therapist practices, are influenced by the patient's care preferences and their expectations. The fourth and final theme revealed the belief that the patient's willingness to engage in therapeutic relationships influenced interactions, and potentially, physiotherapy outcomes.

I considered the first theme was possibly the most important because it appeared important as an independent theme (regardless of the other themes). Further, the factors it describes also appeared formative to experiences described in the other themes. However, the conceptual overlaps and relationships amongst the themes illustrated were complex and interdependent. The patient's personal characteristics and psychosociocultural context for instance were also perceived to play an important role in the nature of therapeutic relationships, patient expectations for their care, and their willingness to become actively engaged in their care. The participants experiences, however, did not reveal whether the nature of therapeutic relationships, patient expectations for their care, or their willingness to engage, influence characteristics that patients reveal during their consultations.

Conceptual overlaps and relationships also existed between other themes. For example, the second theme had important symbiotic relationships with the third and fourth themes. The nature of the relationship influenced the patients therapy preferences and expectations and their willingness to become actively involved in their care. Conversely, patient preferences and expectations, and their willingness to engage, influenced the nature and quality of the relationship. However, although the third theme's relationship with the second appeared symbiotic, the relationship between the third and fourth themes was unidirectional. People's care preferences and expectations influenced their engagement, but there was no sense in the data that their willingness to engage influenced care preferences or expectations. The fourth theme, on the other hand, was considered to have a symbiotic relationship with the second, with willingness to engage influencing patient-therapist relationships, and conversely, the nature and quality of the relationship reciprocally influencing engagement. The fourth theme was also unique because engagement appeared to be the desired outcome of approach's used by participants to manage the difficulties they encountered during interactions with challenging or more complex patients. In that sense, patient engagement was not just perceived to be an influencing factor, but also an outcome of the other factors and the possible mechanism via which those factors could affect the outcomes of interactions between patients and their physiotherapist. Together, the conceptual overlaps and relationships between themes suggest that influences on patient-therapist interactions are more complex than was previously given credit, and that factors other than physical presentation characteristics influence interactions and the decision-making practices of physiotherapists.

Part Three: Interpretive themes

Theme 1: "Practice is really hard because everybody that comes in is so different": Patient personal characteristics and psychosociocultural contextual factors.

The first theme reflects participant's perception that their patient's personal characteristics and psychosociocultural context influenced interactions and their practices, and potentially, the outcomes of physiotherapy care. As discussed previously, participants categorised patients into two main categories using biophysical and psychosociocultural constructs to help them understand factors contributing to people's presentations and guide them when making individualised care decisions. Patients who were not perceived to have challenging personal attributes of psychosociocultural contexts were considered less complicated and more likely to experience successful outcomes from physiotherapy care. As the sixth participant explained:

> *"ones who are easier to work with … they have lower levels of psychosocial drivers … they are not overanxious or fearful of moving ... They want to get better … They say I am going to do this … In those cases, I am just the coach and the facilitator … just guiding them along …they get better …"*

Patients were considered more complex when it was difficult to identify the biophysical causes for their symptoms, but also when participants perceived their patients had more challenging personal characteristics and/or complex psychosociocultural factors contributing to their presentation. Patients with psychological or emotional factors were considered particularly complex and difficult to support. For example some experienced anxiety or depression, low self-confidence, or self-efficacy. Others were perceived to catastrophise or were fearful of provoking their symptoms. These patients were considered complex, difficult to support, and less likely to experience a successful outcome:

> *"… self-efficacy is a key driver of their self-belief to overcome their injury….if I see that is low, it is one of the strongest predictors for they can't cope and they do badly. They have a low locus of control … they are going to catastrophise and let the social chaos get on top of their recovery …"* (Sixth participant)

Patients whose presentations were influenced by cultural factors were also included within the category of patients who were perceived to be more complex and challenging to support:

> *"… practice is really hard because everybody that comes in is so different, and their cultural background can influence how they think …* [for example] *… we have got quite a lot of Indians …*[and]*… they dramatise or catastrophise their pain … and expect that you are going to fix them …"* (Fourth participant)

Other patient specific characteristics participants considered influential included how inquiring patients were about their condition, and how receptive they were to advice. Participants also shared that they paid attention to their patient's verbal and non-verbal communication during consultations to get a sense of how willing patients were to engage in the relationship and learn about their condition and manage it:

> *"… you need to read the person … you might ask them a question, and they are just blunt and to the point …they give closed answers … body language, you can tell how are reacting … if someone actually wants to be there or is closed off …"* (First participant)

Participants believed patients who did not appear to be interested in hearing their therapist's advice, or were disengaged and difficult to connect with, were *"…harder to help and didn't seem to do as well …"* (Fourth participant).

These perceptions contrasted with participant reflections about personal characteristics or psychosociocultural factors that made patients less complicated, and that they associated with better treatment outcomes. Experiences with people with different personal characteristics and psychosociocultural contextual features had shown them that patients who were open to engaging with their therapist and appeared to have a more optimistic beliefs about the nature of their condition, were more likely to experience a successful recovery. Participants also believed patients responded better to their advice and did better with physiotherapy when they had a desire to understand their condition and understood recovery took time. The seventh participant explained this best:

> *"… whether they are going to have a positive outcome? I think if they are a positive person, they usually have a better outcome …. Those are really looking for answers, rather than looking for a quick fix … they are the ones that come in very open-minded …"*

Patient personal characteristics and psycho-sociocultural contextual factors were also perceived to be particularly important influences during interactions because participants believed they had little influence over these aspects of their patient's presentation:

> *"… there are so many things outside our direct sphere of influence that impact their pain and recovery. It could be that they have really poor job dissatisfaction, or that their partner is currently going through treatment for cancer, or they have got family issues…or they have a sedentary lifestyle … "* (Fourth participant)

Participants believed that physiotherapy interventions were unable to influence these factors. Consequently, participants were unsure about how to respond when they encountered people whose personal characteristics or psychosociocultural features were perceived to be challenging:

> *"…the psychological side of things … is a big problem… that is what I cannot fix…I'm not qualified to dive into it… my treatments can't fix that… it's above my training and difficult … issues like depression, anxiety … I don't have the background to deal with that … I've hit my limit as a physiotherapist …"* (Eighth participant)

Similarly, the fourth participant said that *"…it almost feels like we're becoming part psychologists, and I don't feel like we have probably got enough in our training to help us with that…"*.

Therefore, although participants recognized that their patient's psychosociocultural context was important, lack of confidence in their ability to help patients who they perceived had challenging personal or psychosociocultural contextual features resulted in them preferring to focus on physical aspects when attempting to understand the causes of their patient's condition:

> *"… when they're not improving or getting worse … there is something else going on … I am missing somethings. So … I go back and do a bigger bio-mechanical assessment or … send them for x-rays. There is some other reason … and that is where I will find it …"* (First participant)

Notwithstanding their lack of confidence in their ability to successfully interact with patients with challenging personal characteristics, or manage patients with complex psychosociocultural needs, experiences in clinical practice had helped participants develop ways to navigate the difficulties they encountered. For instance, participants reflected that patient-centered communication was an effective way to improve interactions with patients they found challenging. Aspects of their communication they considered important included providing opportunities for patients to share their condition experiences, and acknowledging the impact that the condition was having on their life:

> *"When they are closed off or hard to get to …I ask them questions and just … try to be that person that they can actually talk to … listening and taking on board what they're saying, … and letting them know I understand how much it is affecting them…"* (First participant)

As well as showing they were listening to their patient's concerns, participants also believed it was important to show empathy:

> *"…. listen … show empathy…… ask them about how it is affecting their life … and find out what is important to them…"* (Fifth participant)

Participants had also learned that tailoring their care approaches based on their observations about the patient's personal characteristics or psychosociocultural context helped to overcome obstacles presented by these factors:

> *"… there …*[are]*… different personality types … Sometimes they come in, and they don't really care. They just want you to help them and get immediate relief. Whereas …*[others]*… will ask more questions about it … you treat them differently…because they are after different things…and you have to match your treatment to that …"* (First participant)

Similarly, experiences in practice had shown participants that when they observed patients had low self-confidence or self-efficacy, that understanding their personal goals and connecting with the patient to show them goals could be achieved if they worked together, was an effective way to engage these types of patients in physiotherapy care:

> *"… start off with a little battle that you can win, and the battle has to be something that's important for the patient…Do something that shows them this is achievable. Show them we can do this if we work together here..."* (Sixth participant)

Participants believed these types of connections made for positive consultation experiences and gave "…*patients back a sense of control over their condition and symptoms…"* (Eighth participant). Identifying goals that were meaningful to patients and showing they could help patients achieve them, could therefore be used *"…as the driving force to motivate them…"* (First participant). Developing these types of connections and creating these types of experiences for patients during interactions, were perceived to foster the patient's confidence and trust in their therapist. Participants believed these types of approaches were helpful for overcoming relationship challenges and led to patients actively participating in their own care.

Participants also reflected on the value of compromising to navigate interactions with patients they considered complex or challenging. Compromise was an important strategy relied on to manage tensions identified in all the themes and it was a particular feature of the way participants attempted to foster patient-therapist relationships when patients were perceived to have difficult personal characteristics and challenging psychosociocultural contextual features. Compromise in this context often consisted of providing treatments that satisfied the patient's expectations to decrease interaction tension and facilitate engagement in other rehabilitation measures. As the fourth participant explained:

> *"…when they are really hard work… you have got to try and defuse it and not go head-to-head with them … that means compromising … give them … what they want so that they give you what you want…"*

Using this strategy to foster patient-therapist relationships, navigate patient treatment expectations, and facilitate engagement, is discussed further in the other themes. Participant beliefs that compromise improved interactions with patients they perceived were complex or more challenging suggested their perceptions of their patient personal and psychosociocultural characteristics may be shaped, in part, by the nature and quality of the interaction itself.

Summary

Participants perceived that their patient's personal characteristics and psychosociocultural context influenced interactions and their practises, and potentially, the outcomes of their care. This is possibly the most important theme because not only was it an independent influence, but the factors it describes directly influenced the other themes. A wide range of personal characteristics or psychosociocultural factors were perceived to influence interactions including the patient's anxiety or depression, self-confidence or self-efficacy, and other factors such as their culture. Similarly, whether patient catastrophise, avoided painful movements, or appeared closed minded or disengaged, are perceived to be important influences during patient-therapist interactions. The presence of these characteristics added to participant perceptions about patient complexity, and they distinguished patients based on these factors. These factors could be important because physiotherapists lose confidence in their own professional abilities when patients are perceived to have challenging personal or psychosociocultural characteristics.

Experiences in clinical practice, however, taught participants ways to improve their interactions. They believed they needed to: a) communicate effectively; b) connect with their patients; c) create positive experiences for patients; and d) compromise their own expectations to build relationships. The belief that these strategies improved interactions with patients suggests therapist perceptions of their patient's personal or psychosocial characteristics are shaped in part by the nature of the interaction itself.

Theme 2: "What matters the most … is that you form a relationship … and earn their trust.": Confidence and trust-based patient-therapist relationships.

The second theme refers to participant beliefs that interactions are influenced by the nature and quality of the therapeutic relationship. Patient-therapist interactions, therapist practises, and potentially, physiotherapy outcomes, may all be dependent on whether interactions take place within the context of a relationship based on confidence and trust. Participants considered the nature and quality of relationships with patients particularly important because relationship tensions undermined their confidence and impacted their practises. In their experiences, diagnostic and curative treatment pathway uncertainties, people's personal characteristics and the complexities of their psychosociocultural contexts, and the unrealistic expectations many patients had of their therapist, impacted their relationships, and influenced their practice behaviors.

Participants believed that establishing relationships based on confidence and trust from the outset, were crucial to the quality of their interactions and the outcomes of physiotherapy care:

> *"… It's that very first encounter … we need to build that therapeutic alliance or that rapport … from a success point of view … that first experience is very important, to build that relationship and get them knowing that you can be trusted, and that you are going to help them …"* (Sixth participant)

It was also important to continue to reinforce those relationship qualities during subsequent consultations:

> *"… you've got to follow it through … each and every session validating that you can be trusted …because if you don't follow through … that could be detrimental to your relationship…".* (First participant)

In the participants experience, when their relationship with patients had these characteristics, patients were more likely to have confidence in their explanations, and trust their therapist's advice:

> *"… it is of huge importance for me to build … trust and confidence … if I have not built rapport … trust … and confidence … then they may not believe me or take my advice on board..."* (First participant)

Reassurances provided to patients who had confidence in and trusted their therapist were similarly considered more effective:

> *"… people want to be reassured, and … and reassurance is more effective if you're reassured by someone you trust rather than someone you don't ...".* (Seventh participant)

Participants, therefore, reflected that that their practises often revolved around building relationships based on confidence and trust with their patients. The benefits of these types of relationships were not exclusive to patients. Participants perceived it was easier to feel empathy towards the patient and understand their needs when they had built this type of connection and earned their patient's confidence and trust:

> *"…I feel better treating them if I can relate to them … if you connect with them and they trust you, it's easier to hear what they need ... and if you have that connection … it is much easier to feel empathetic …"* (Seventh participant)

However, they also reflected that establishing relationships with these qualities was one of the most challenging aspects of physiotherapy practice. A wide range of factors were perceived to influence the nature and quality of their relationships, including their perception that patients did not always share their belief that a relationship with their physiotherapist was an important aspect of their care:

> *"… he would come back after he had been to someone else, a colleague in my clinic … it tells me that if someone does not really care who they see, they are not really concerned with building a relationship …"* (Seventh participant).

Participants also described difficulties forming connections with patients they perceived had challenging personal characteristics or complex psychosociocultural needs, or who appeared unwilling to engage during consultations:

> *"…I felt I could not connect with that person … personally, I just could not get along with them … I could not find any kind of small talk and I could not see any happiness in them…helping that person was a lot harder …"* (Seventh participant)

In the participants' experience, some patients also resisted their attempts to build rapport, confidence, and trust. As the first participant explained:

> *"…you might ask them a question, and their response is just blunt and to the point … they give closed answers …* [they are] *… closed off …pessimistic … and resistant to even being there …"*

Patient beliefs about back pain and their treatment expectations were also perceived to be a barrier to establishing effective connections. Participants reflected that tension often arose during interactions when conflict occurred between the patient's condition beliefs, or preferences for their care, and their own. These tensions were compounded when patients wanted to participate in decision-making about their care. Although participants believed that successful relationships were collaborative their desire to maintain control of the partnership and the decision-making was a source of tension and a barrier to developing relationships based on confidence and trust. The fourth participant explained this best when describing his reluctance to share control of the decision-making with his patients:

> *"… There is a control imbalance within a session, where the therapist holds more control over the patient … sometimes that is part of the problem … some people do not like relinquishing control to somebody else. So they want to dictate how the session is going to go. And when it is not meeting their expectations, they do not like that. They have got to allow you to control where it is going to go … "*

Participants considered that the difficulties they experienced building confidence and trust in these situations were further compounded if they were unable to provide a diagnosis or satisfactory explanation for the patient's symptoms. As the first participant reflected:

> *"… saying to someone that you have got non-specific low back pain and that it is almost impossible to isolate the exact structure causing your pain ... they are probably not going to have confidence in you … or be impressed with your diagnostic skills …"*

Relational challenges of this nature frustrated participants because they believed they were unable to help patients if patients did not place their trust in them in these situations:

> *"… I try to make it a journey that we walk together …* [but] *… some people don't trust you enough … to walk that journey together … you can't help those people …"* (Third participant)

However, participants also reflected that their own behaviours contributed to the challenges associated with building confidence and trust in their relationships. For example, participants considered that the way they interacted and communicated with patients could enhance their trustworthiness but could also undermine the patient's confidence in their therapist's knowledge and skill. In this regard, they considered that their inter-personal relational skills and the language they used to communicate their thoughts to patients was of particular importance. They believed that the type of information they provided, and the way they communicated it, had important implications for the nature and quality of their relationships. As the sixth participant explained:

> *"…what makes the best physio is their interpersonal and communication skills … it is not the care they provide. It is how they communicate, what they communicate, and if they can connect … that is what is most important …."*

Many participants confided their lack of confidence in the adequacy of their interpersonal communication skills. The sixth participant went on to explain:

> *"… the biggest problem we have … is that we don't get enough training on our interpersonal skills … skills that help us build good relationships … we need to be taught how to read body language, use reflective listening and motivational interviewing … a big problem is we aren't very good at conceptualising, and contextualising where patients are at in life..."*

Participants also believed that relationships based on trust required reciprocity and personal connections with their patients, but that developing connections of that nature was not possible with every patient. They reflected that making professional and personal connections with patients were important for establishing their trustworthiness and so that patients would feel comfortable sharing information that would help their therapist understand their needs:

> *"… she needed to know a lot more about me so I could know a lot more about her … we have to have that personal relationship … grow that because it gives us open communication…but you have to build that …"* (First participant)

However, participants reflected that they did not have the capacity to make personal connections with all their patients. As the seventh participant explained:

> *"… when I am seeing lots of patients … making personal connections …and being positive all day can be tiring … having to listen … understand them and connect with them all …"*

In addition to sharing information about themselves to establish genuine connections, participants also considered that the personal qualities they displayed were important to the nature and quality of their relationships. For instance, by displaying optimism and positive self-efficacy, the sixth participant believed this gave his patient's confidence he could help them recover:

> *"…patients feed off you so you have got to be the glass half full positive sort of guy … your results reflect the passion and energy you bring to the recovery process …and affects whether patients think you can help them get better…"*

The belief that relationships can be influenced by the interactional approaches they take with individual patients, and by how patient's respond to those approaches, suggests that some participants recognised the importance of their own behaviours to the nature and quality of their interactions with patients.

Notwithstanding the belief that forming relationships based on confidence and trust was one of the more challenging aspects of clinical practice, experiences with patients had also helped participants develop ways to navigate the tensions and difficulties they encountered. For instance, participants reflected on the importance of communicating with patients and developing connections that built confidence and trust. They believed this led to patients relinquishing control of the decision-making about their care. Participants thought that demonstrating they cared was a particularly effective way to build this type of connection with their patients:

> *"…show the patients you care. … they don't care how much you know until they know how much you care…"* (Sixth participant)

Validating the patient's experience and avoiding care approaches that left patients feeling that their symptoms were a consequence of their personal deficiencies, was also considered useful for building connections based on confidence and trust. The third participant explained that this helped to encourage patients to actively engaging in their care:

> *"… you can't criticise them … the consequence of not criticising them is them engaging … they are no longer hearing, do this or don't do that. Or you are wrong. They are hearing my thoughts and feelings are valid. The way I perceive things is valid. And now she can take me to a new place because she understands me… that is what I am striving for … to be able to understand and connect with the patient …"*

Participants similarly believed that therapeutic touch was a helpful way to build confidence and trust. In their experience, manual therapy enhanced confidence and trust and helped patients to feel comfortable sharing personal information. As the third participant, again, explained, therapeutic touch is an important skill that is undervalued in physiotherapy practice:

> *"… we must not lose touch and our ability to feel … they are not valued enough. That ability to put your hands on somebody that opens the doors for connections … for patients to talk to us and for us to hear their stories in a different way … and you listen…and listening shows you care…"*

However, touch was only considered an effective tool if the therapist capitalised on the opportunities it presented. As the third participant continued to reflect, this meant listening to what patients shared and responding appropriately to the needs and concerns they expressed:

> *"…what patients really want is to come to someone they trust who will listen, who will give them that immediate relief from their symptoms when they ask for it, and help them to cope …* [someone] *… they know who understands them..."*

Compromise was also considered to be an effective way to establish confidence and trust in the relationship. As suggested earlier, compromise was identified as an effective way to navigate tensions that arose in all the themes. However, it was a particular feature of the way participants navigated barriers to relationships. For example, when conflict occurred between the patient's condition beliefs, or preferences for their care, and their own, participants believed it was more important to compromise their own beliefs and provide patients with interventions they preferred to reduce the risk of damaging the relationship:

> *"… you compromise with the patient and end up doing more manual therapy-based sessions, and not pushing so hard on addressing some of the other factors you feel need to be addressed. You have to pick your battles … we can have this conversation another day. If I have this conversation with your today, there may not be another day…"* (Fourth participant)

The ways participants navigated the difficulties they encountered establishing relationships based on confidence and trust suggests the nature and quality of patient-therapist relationships are influenced by the complexities of the relationship dynamics that occur when patients and therapists interact.

Summary

Participants perceived the nature and quality of relationships influenced interactions, their practises, and potentially, their outcomes. They believed successful interactions and outcomes may depend on patients and therapists collaborating in relationships based on confidence and trust. Relationships with these characteristics created a context in which reassurances and advice they provided to patients were more likely to be effective, and participants felt more empathy for their patients. They also believed relationships depended on the contributions of both parties and that relationships were more likely to be established when they created a personal connection with their patient and demonstrated through words and actions that they cared. Establishing this type of relationship, however, was one of the most challenging aspects of practice. A wide range of barriers prevented the formation of relationships including patients not sharing the belief that a relationship is important, conflict between patient-therapist condition beliefs and treatment expectations, and challenges associated with creating confidence and trust within the context of a condition characterised by uncertainty. Tension over control of the decision-making during interactions, and lack of confidence in their ability to connect with patients with challenging personal characteristics or complex psychosociocultural needs, were also perceived to be potential barriers to relationships.

Experiences in practice, however, taught participants ways to overcome these challenges. Relational strategies such as developing personal connections, demonstrating care and empathy, listening, validating patient experiences, and compromising when making care decisions, helped them overcome relationship barriers. Therapeutic touch was also an important way to build connections and foster relationships. The belief that these strategies aid the formation of effective patient-therapist relationships suggests that the nature and quality of patient-therapist relationships are influenced by the complexities of the relationship dynamics that occur when patients and therapists interact.

Theme 3: "… They prefer manual therapy….. and they expect you are going to fix them…": Patient care preferences and expectations.

The third theme suggests that patient-therapist interactions are influenced by the patient's care preferences and their expectations. Navigating and managing patient preferences and expectations was considered by participants to be a source of tension in private physiotherapy practice. They reflected patients came to physiotherapy with expectations about a) how much time they would spend with their therapist; b) the type of physical evaluation the therapist would perform; and c) that therapists would be able to identify the cause of their condition. Participants also believed patients expected them to care, and that they would provide them with information and advice about how to manage their symptoms:

> *"… they are expecting a thorough assessment … they want your time … they think you will educate them about what to do … and that you will care … and get to the bottom of it…"*
> (Third participant)

However, what participants perceived mattered most to patients, was whether their therapist could provide treatment that would relieve their symptoms:

> *"…what matters the most to people with back pain? That they are not in pain. They come to you because they do not want to be in pain. They want you to take it away … They want you to give them instant relief…"* (Seventh participant)

In the participants' experience, many patients, therefore, had strong preferences for the type of care their therapist would provide, and high expectations regarding its likely effects. As the fourth therapist reflected, many of his patients expected manual therapy and other passive interventions, and believed that the treatments he provided would have immediate and lasting effects on their symptoms:

> *"… they come in with preconceived ideas of what a physiotherapist does … They want manual therapy. They think they can lie on the bed, and we will click them, or stretch them, or massage them, or push on something, and they are going to feel better …and they expect that you are going to fix them …"*

Participants also believed that patients were disappointed, and that it undermined confidence and trust in a therapist, if those expectations were not met:

> *"… it's a generalised comment but if an acute person comes in… they usually want hands-on treatment and they want to leave feeling better … so if you spend all your time talking and doing patient education … or giving them an exercise plan … they get a little bit like she didn't even do anything …and they wouldn't trust you and wouldn't want to go back to a physio who just does that …."* (first participant)

Participants perceived that people's care preferences and expectations were related to their beliefs about the condition, and that other physiotherapists and health care professionals had influenced those beliefs and their understanding of the effects of physiotherapy interventions. The eighth participant for example said that many of his patients believe their symptoms were caused by structural abnormalities, and that the treatments he provided were aimed at correcting those underlying causes:

> *"… they think their back is out of alignment …so they want me to do a manipulation or an adjustment that can fix that …… and they think that my manipulation will take the pain away straight away…"*

This participant continued to explain that many of his patients had seen other health care professionals, and those experiences had influenced their beliefs, care preferences, and expectations:

> *"…Often, they have been to other practitioners … another physio or a chiropractor or osteopath … and they have been given a diagnosis or been told they can be realigned or fixed …. So quite a few come to physio and just want a massage and some manipulations ….*

> *because they had that from other physios, and it worked … so they want it again…"* (Eighth participant)

Regardless of the origin of people's beliefs and expectations, participants perceived their patient's care preferences and expectations influenced their interactions and practises. The sixth participant for instance, said that in his experience, the patient's preferences were *"…huge… and it's the first thing I ask ...".* In his opinion, providing care that his patients preferred, and meeting their expectations, was an essential aspect of physiotherapy practice:

> *"… if your patient has a strong preference for the type of care you are going to provide … you have to follow that … so when patients are weighted more heavily towards manual therapy …their belief is that manual therapy helps them, and they want it. So you need to give them that. Equally, if they want acupuncture … acupuncture works for them … so give them acupuncture…"*

Navigating and managing the patient's care preferences and expectations, however, was also considered by participants to be one of the most frustrating and disillusioning aspects of supporting people in private practice. The seventh participant explained patients could be "… *impatient with the natural history of back pa*in…" and their expectations were often unrealistic and difficult to satisfy:

> *"… You get a sense with some patients that they are here for you to fix their back instantly by putting something back in place… just click it, and it will feel better straight away …. but in my opinion, that is just not the way it is … most of the time back pain is not something that you can fix and get instant relief from …"* (Seventh participant)

Participants, therefore, reflected that tension frequently arose during interactions between their own care preferences and expectations for the consultation, and those of their patient. In contrast to patient beliefs that manual therapy and other passive forms of care were the most effective way to manage the condition, participants considered that rehabilitation exercises and remaining active were more effective. The fourth participants experience with patients for example, had shown him that hands-on approaches to care had limitations:

> *"… over the years I have become convinced that manual therapy provides nothing more than short-term relief… so I always try to give exercises and stretches as well. I believe it isn't what we do in the clinic that helps them … it's what they do outside of that and in between sessions…"*

In his experience, successful outcomes reflected how well he was able to convince his patients to modify their lifestyle or change environmental factors that in his opinion, were influencing their symptoms:

> *"… we need to try to identify and change their lifestyle or other stressors in people's lives because they influence the amount of pain people are in … they can get better if they listen to me and change the ones they can …"* (Fourth participant)

Participants though, also reflected on the influence their own beliefs and care preferences had on their interactions and outcomes. They perceived that when their own beliefs and treatment expectations conflicted with those of their patient, attempting to impose their beliefs and care preferences placed the relationship at risk:

> *" … if you continue down that line, you can get a sense that they are straight away tuning out. That they have lost interest in what you can do as a physio. You are not giving them what they came for. So if you do, you run the risk of losing them as a patient…"* (Fourth participant)

In these situations, compromising and providing the care that people preferred appeared to be an effective way to navigate this tension and maintain the patient's confidence and trust.

However, just as the participant's clinical experiences had helped them identify ways to navigate relationship challenges with people with difficult personal characteristics or complex psychosociocultural dimensions, experiences with patients had also helped them identify ways to navigate their patient's care preferences and expectations. For instance, as noted, participants believed compromising and providing the care people expected helped them navigate tensions that occurred when conflict arose between their own beliefs and care preferences and those of patients. As the fourth participant explained , it was best to give patients *" … a little bit of what they want … so that they give you a little bit of what you want…".* The seventh participant, similarly, reflected that compromise was an effective way to provide patients with the care they believed would be effective, but also a way for him to introduce interventions he believed would also be effective:

> *"…if people come in for manual therapy … I give them what they want …I think if they are asking for it … it might be something they need… you can then work on other stuff at the same time that you think is just as important. There is no reason that you can't do both … what they feel they need and what you feel that they need …"* (Seventh participant)

Participants also believed that by compromising their own expectations, and providing care patients expected, that it built trust. By compromising, they considered they were building the foundations for a relationship in which their patient's treatment expectations could safely be challenged, and their own preferred interventions introduced, without risking the relationship. As the fourth participant reflects:

> *"… you end up doing more manual therapy sessions, and not pushing so hard on addressing some of the other factors that you feel need to be addressed. You have to pick your battles*

> *… we can have this conversation another day. If I have this conversation with you today, there may not be another day…"*

For participants, making compromises represented a person-centered approach to sharing decision making responsibilities within the relationship, rather than *"…trying to always be the one in control…"* (Fourth participant).

Participants also reflected on the value of educating patients to navigate the difficulties they experienced managing patient care preferences and expectations. In general, participants believed educating patients about their condition was an essential aspect of physiotherapy care:

> *"... If there is one thing that I want to achieve for patients … it is for them to walk out the door better educated …. Not only around what their injury is, but what is going to be the most effective way to manage it …"* (First participant)

Therefore, when conflicts occurred between their own beliefs and care preferences and those of their patients', providing information was perceived to be an effective way to *"…adjust people's expectations … and readjust what they are thinking …"* (Fourth participant)). Participants considered patient beliefs and care preferences to be malleable, and that through education, they could change those beliefs and expectations and align them with their own. As the seventh participant reflects, correcting people's beliefs and care preferences was another essential aspect of physiotherapy care:

> *"… If someone has a belief or … an expectation that they want something, and I believe something different and that this other thing is more important, then it's my job to try and do my best to try and explain that …. you explain your point of view and try to change their expectations and what they think …"*

The participants expected that when they had educated their patient, that the patients would change their beliefs and alter their preferences and engage with the interventions their therapist recommended. The first participant's reflection on the purpose of her educational strategies best summarises this:

> *"… My expectation is that … if I have educated them and explained what I think, and … done the treatment they wanted and provided exercises … that they will then be actually on board with the treatment plan that I am trying to give to them …"*

However, notwithstanding their belief that the strategies they used to navigate their patients care preferences and expectations were effective, participants also reflected that these strategies caused relationship tension and were a source of frustration. For instance, participants reflected on the cognitive dissonance they experienced when they felt compelled to compromise their own beliefs and provide care that they did not consider was in the patient's best interest. As the third participant explained:

> *"… I really struggle with that. Sometimes … I will just give in and give them what they feel they need … that might just be some soft tissues release, myofascial release, massage, or just listening …and I think to myself oh give me something to do… and I don't want to do that …"*

Although participants considered that meeting their patient's care preferences was an essential aspect of their practice, their preference was to provide care in accordance with their own beliefs rather than providing the care that reflected their patients. Compromising also resulted in frustrations for participants because they believed they did this too often as they attempted to covertly guide patients towards care approaches that they considered would be more effective:

> *"…it's just so frustrating because we are forced to make … too many compromises … we end up giving them what they want, in the hope that we … might change their way of thinking…"* (Seventh participant))

Compromises with patients that included providing hands-on care were a particular source of frustration for participants. They believed that when patients preferred passive forms of treatment and did not want to engage with more active approaches, it led to diluted approaches to care where they were unable to provide patients with the most effective interventions. As the first participant explained:

> *"… when they insist on that it just leads to a watered-down treatment approach, where I can't actually give them the proper treatment plan that I wanted to …"*

The third participant, similarly, reflected that this was the case when she considered that psychosociocultural factors were contributing to her patient's symptoms:

> *"…She had a lot of anxiety. Anxiety is her big deal. And she used me to help her cope with this. So she comes in here to get manual treatments to cope with the physical manifestations of her anxiety. She thinks it is very valid…and again, I think I just don't want to do that …"*

During these types of interactions, participants believed that patients prevented them from using their physiotherapy skills and training:

> *"… when I have to do massages and other manual things… my physio skills are not being utilised. I feel like they have come in, paid me money, but I am not really using my training or giving them the best of what I have got…"* (Seventh participant)

For some of the participants, this became a source of disillusionment with physiotherapy practice. The fourth participant summed this up best when he reflected on the mismatch between using his physiotherapy training and providing care that patient's preferred:

> *"… I do it but … I don't think I'm using my skills, and I don't think I have ever truly fixed someone with low back pain just with manual therapy. … so I have become disillusioned …"*

Overt attempts to change their patients' condition beliefs and care preferences through education, or covert efforts guide them towards intervention they believed were more effective, were also associated with tensions and frustrations. Participants reflected it was *"… hard to change people's expectations of what physiotherapy is … and you risk losing them when you do…"* (Fourth participant). To try and overcome this difficulty, participants described using a range of educational strategies depending on their patient's unique personal contexts. For example, the fourth participant explained that in his practice, he relied on a didactic teaching approach when attempting to inform patients about their condition and alter their beliefs and care preferences:

> *"… sometimes you have to lecture patients a lot when you want them to change their mind … so you end up having lots of repeated conversations around the best way for them … you have to talk them through the factors you think might be influencing why they still have back pain and providing suggestions on the sorts of things you think might help to get rid of it ..."* (Fourth participant)

However, the fourth participant also reflected that he often found himself "…*saying the same stuff over and over again hoping it sticks…".* The sixth participant, on the other hand, explained that depending on the patient, he might ask them to explain the reason for their preferred treatment choices. By understanding patient's beliefs about the possible influence their preferred treatment would have on their symptoms, this participant thought that it would help him covertly guide the patient towards care that he believed was more effective:

> *"… the patient's preference is huge … so if I want to do something else …I ask them why they want it … like if they say they want ultrasound on their back … I will ask them why ultrasound is important … then I will say I don't have that piece of equipment …* [but] *… I can sell you a wheat bag and you can get more thermal depth penetration from this than ultrasound. So I try to target my education to change what they want…"* (Sixth participant)

Regardless of the strategy used, when the information participants provided conflicted with their patient's pre-existing beliefs, it remained difficult and frustrating trying *"… to get* [patients] *to hear what you are saying …"* (Third participant). Participants believed this had important implications for the outcomes of physiotherapy. As the first participant's reflection summarises:

> *"…We're here to educate on how, why, and what we can do … but if they are not on board … I can't get them right…"*

Summary

Patient care preferences and expectations were perceived to influence interactions and therapist practises. Participants believed that patients expected them to care and would be able to tell them the cause of their condition. Participants also believed people come to physiotherapy expecting passive treatment interventions that will provide immediate and lasting pain relief. Navigating these preferences and expectations was one of the most frustrating and disillusioning aspects of practice. Participants believed patient expectations were often unrealistic and difficult to satisfy. Tensions also often arose between the participants' condition beliefs and care preferences and those of their patients.

Experiences in practice, however, taught participants ways to navigate these difficulties. This includes compromise and providing information designed to alter their patients' beliefs and care preferences. Compromise was considered a valuable way to build a relationship in which patient treatment expectations could safely be challenged without risking the relationship. It was also considered an effective way to share the decision-making responsibilities with patients. Compromise, however, created dissonance between participants beliefs and their behaviours when patients preferred hands-on approaches. Participants believed compromising leads to diluted approaches to care where they are not using their physiotherapy skills and training or, providing patients with the most effective forms of care. Participants, therefore, attempted to overtly or covertly manipulate patients to try to change their' beliefs and preferences. Regardless of the strategy they used, navigating patient care preferences and expectations remained a source of frustration for the participants in practice.

Theme 4: "…some people are just not ready to engage. They have got to get their life in order first …": Patient engagement in relationships and physiotherapy care.

The fourth and final theme revealed participant beliefs that patient willingness to engage in a therapeutic relationship and physiotherapy care influences interactions and their practises. Among the themes, this theme was unique because engagement appeared to be the desired outcome of approach's used by participants to manage the difficulties they encountered during their interactions. How participants managed and navigated the influences described in the other themes could, therefore, potentially be the mechanism via which the influences identified in the other themes affect physiotherapy outcomes.

Participants reflected that patients who did not have successful outcomes did not engage in therapeutic relationships or follow their advice. As the first participant explained:

> *"…the ones who do badly don't engage … you give them exercises and they hardly ever do them … when you ask them questions they just give clipped answers and don't seem to want to talk… they just want to lie there, and you fix them … "*

This participant, and others, believed these types of patients were difficult to support, and in their experience, were unlikely to benefit from physiotherapy care:

> *"… one who I very quickly picked up that we weren't going to be able to do anything with … she was just completely shut off and she didn't seem to want any sort of interaction whatsoever… so at the end of the interview I said look, I am just not sure I can take this any further…"* (Third participant)

Their reflections about these types of people contrasted with their reflections about people who they perceived wanted to engage in the relationship and were willing to actively engage with physiotherapy. The eighth participant, for example, reflected that in his experience, people who experienced successful outcomes came to physiotherapy with an interest in their condition, and wanted to actively participate:

> *" … people who do well … they are the ones who listen and who are very active … they do their exercises … they come in and get involved …they form relationships … they ask questions … and they engage more …"*

Because of their beliefs about the importance of engagement to outcomes, participants considered that the need to foster engagement played an important role in their practice.

The interrelationships amongst the themes can also be illustrated by this theme. Participants believed that engagement was influenced by the patient's personal characteristics and psychosociocultural context, their care preferences and treatment expectations, and the nature and quality of the relational dynamic that emerged during interactions with their therapist. The first theme for instance, illustrated how participants considered that the patient's personal characteristics and psychosociocultural context influenced whether patients engaged in a relationship and followed their therapist's advice. Personal and psychological characteristics such as low self-confidence or self-efficacy, or the tendency to catastrophise, were believed to influence patient engagement with rehabilitation approaches designed to aid their recovery. As the sixth participant reflected:

> *"… self-confidence and self-efficacy are key drivers of their belief about whether they can overcome their injury….if that is low, it is one of the strongest predictors for they can't cope … and they can't do what you ask, and they do badly. They catastrophise and let the social chaos get on top of their recovery efforts …"*

Participants also perceived that patients' who had unhelpful beliefs about the cause of their condition, or were fearful of provoking symptoms, were less likely to follow their therapist's advice to remain active or perform exercises:

> *"… some patients have a negative outlook or beliefs that don't help … they also might have had bad movement experiences … so then they think certain movements are bad and have fear avoidance of doing them … those are barriers to them staying active, and doing exercises, and getting better …"* (First participant)

Participants also considered that the nature of the relational dynamic that emerged during interactions influenced patient engagement. This in turn influenced their own behaviours. The second theme illustrated how participants believed that the nature and quality of their relationships depended on mutual collaboration, and both parties being willing to build a partnership based on confidence and trust. When participants perceived patients did not have confidence in them, or did not trust their advice, this influenced the participant's engagement in the relationship and the patient's care. As the eighth participant explained, when patients engaged with him, and followed his advice, he would: *"…put more back into them … and do more work with them …".* Conversely, when participants thought patients did not have confidence in them or trust their advice, although they would provide treatment, they consciously reduced their own engagement and the effort they invested in the patient's care. As the seventh participant reflected:

> *"…If they aren't going to work with me and trust me I let it go. I am not going to try anymore … I just think physio is not for that person … I don't want to say I am not going to treat them …* [but]*... I definitely won't try as hard with that person because you can't fix everyone…"*

Participants found it easier to attribute unsuccessful outcomes to patient's being unwilling to engage and follow advice, than acknowledging that patient's may be unwilling to engage and place their confidence and trust in a therapist until the therapist has shown that they are engaged and invested in the patient's care.

The third theme, similarly, illustrated that participants also believed patient care preferences and expectations played an important role in patient engagement, and potentially, their outcomes. For example, participants believed patients who preferred massage or manual therapy, and expected that this would relieve their symptoms, were less likely to engage with their therapist or follow their advice. As the eighth participant reflected, patients who wanted hands-on care often did not appear to want to engage with him or follow his advice. In his experience, these people were less likely to experience successful outcomes:

> *"… patients who do badly are the ones that just want to come and get the massage and don't really listen or care about what I've said to them … they don't do what I told them to do … and they are just not engaged … they are just happy to get treated ...and they are the ones who do badly …"* (Eighth participant)

The fourth participant had similar experiences with patients. He reflected that those types of patients did not engage because "…*that's not what they are here for, so they are not really willing to listen …".* Again, it may have been easier to attribute unsuccessful outcomes to people being unwilling to engage and follow advice, than acknowledging that they may be unwilling to place their confidence and trust in a therapist until the therapist has listened to them, and acknowledged their perspectives:

> *"…in my notes I indicate that I have been encouraging this, but that the patient has been resistant … so I document that they are not listening to me or following my advice … and that they are not getting better because they have not done anything I told them to do …"* (Fourth participant)

However, just as participants learnt ways to navigate their patient's personalities or complex psycho-sociocultural contexts, establish relationships, and manage conflicts between their care preferences and expectations and their own, they had found ways to foster engagement. As suggested, engagement appeared to be the desired outcome of the approaches they used to navigate difficulties influencing interactions with patients. For example, compromise was considered a useful way to build collaborative relationships with patients who had challenging personal characteristics and psychosociocultural contexts, but it was also an important way to navigate conflicts between the participants care preferences and those of their patients. Where the desired outcome in these situations was engaging the patient in the relationship, and in care strategies participants believed would help their patients to recover, compromise appeared to be both an overt and covert strategy designed to foster engagement. As the eighth participant reflected, he compromised by providing care that people wanted because it helped him to establish a relationship within which care approaches he favored could be introduced:

> *"…if people come in for manual therapy … I give them what they want … it helps to build the relationship … you can then work on other stuff at the same time that you also think is important. There is no reason that you can't give them what they feel they need … it allows you to get them doing what you also feel that they need …"* (Eighth participant)

Fostering engagement also appeared to be the desired outcome of communication and relational strategies participants used to develop relationships based on confidence and trust. For example, participants believed that asking about and listening to the patients concerns, and validating and acknowledging their experiences, established the relationship context within which patients would engage with them and follow their advice. As the third participant reflected, these types of relational strategies helped her establish connections with her patients, and were important to building patient confidence and trust so that they would engage with her and follow her advice:

> *"…asking people to tell you what's worrying them … and then listening and acknowledging them matters ... when I do that they will often say, you are the first person to have listened to me and you understand my experience, I trust you … my thoughts and feelings are valid …. you can take me to a new place because you understand me …"*

The first participant, similarly, considered that understanding her patient's perspectives, and gaining an appreciation of why it was important for them to recover, were effective ways to encourage patients to actively engage in their care:

> *"… everyone comes for different reasons … and I think addressing those things is really important … when you find something meaningful that matters to them and show them you understand that, then they come on board …"*

Fostering engagement was also the desired outcome when participants provided education to patients about their condition. As the discussion in the third theme illustrated, participants thought that educating their patients was a useful way to navigate difficulties they encountered when patients had condition beliefs or care preferences that were different to their own. Participants believed education empowered patients to become actively involved in their care because it helped them to see the value of interventions they recommended. As the sixth participant explained:

> *"…what we know as clinicians is that any ideas or strategies that we put in place have very low uptake … but if we can help patients to see the value in it and make them they feel like they made the decision … then they will engage with the advice at a higher rate…"*

However, even though participants had strong beliefs about the sort of information patients would benefit from, they also perceived their efforts to educate their patients undermined engagement if the information conflicted with the patient's beliefs. To navigate this challenge, participants considered that it was important to match their explanations to their patient's belief system or condition orientation. For example, when the first participant perceived that her patients had strong biomedical condition beliefs, she believed it was important to provide explanations that were consistent with those beliefs. Patients who had a biomedical condition orientation therefore received explanations that were consistent with that orientation so that it would not contradict those beliefs, and matched the effects of the interventions with the patient's physical impairments:

> *"… to get those patients on board doing what I wanted them to do … my education would be getting out the model of the spine and explaining the anatomy … the vertebrae … discs*

> *… nerves … muscles … and then showing them what they did … and then trying to relate that back to what I found objectively … so then they can understand why I want them to do a particular exercise…"* (First participant)

On the other hand, when participants perceived patients who had a bio-psychosociocultural condition orientation, they believed these patients needed different types of information before they would engage and follow their advice. As the eighth participant reflected, those people needed:

> *"…different sorts of education before they'll do what you want … you need to tell them about the different kinds of things that influence back pain … like the psychological side of it, not just the physical side of it, but the social side of it, how sensitisation works, … how pain sensors work in the body, and how emotions, depression, and anxiety affects their pain …"*

It was notable, however, that participants did not reflect on the importance of asking patients to describe the information they would like to receive to help them understand their condition.

Summary

Patient engagement was perceived to influence interactions and potentially treatment outcomes. Participants believed patients were more difficult to manage and less likely to have successful outcomes when they did not engage in a therapeutic relationship or with their advice. Engagement appeared to be influenced by factors discussed in other themes including the patient's characteristics and psychosociocultural context, their care preferences and expectations, and the nature and quality of the patient-therapist relationship. Like successful therapeutic relationships, patient engagement requires reciprocity. When patients were unwilling to engage, this impacted participant practises. Patients, however, may be unwilling to engage until they perceive their therapist is also engaged and invested in their care. They may also be unwilling to engage and place their confidence and trust in a therapist until they believe the therapist has listened and acknowledged their perspectives.

Due to the perceived importance of engagement to outcomes, participants used overt and covert strategies to promote engagement during interactions. Strategies include compromising and meeting the patients care preferences to build the relationship. They also included using communication to build confidence and trust, and empowering patients by providing information about their condition that was tailored to the patient's beliefs and condition orientation. Engagement, therefore, could be the desired outcome of approach's physiotherapists use to navigate the difficulties they encounter during their interactions, and could potentially be the mechanism via which the influences identified in the other themes affect physiotherapy outcomes.

Part Four: Summary of Findings

My interpretation of the participants experiential perspectives revealed four main influences during patient-therapist interactions: a) the patient's personal characteristics and psychosociocultural context; b) the patient-therapist relationship and whether it is characterised by confidence and trust; c) the congruency between the patient's care preferences and expectations and those of their therapist; and d) whether patients are willing to engage in the relationship and with physiotherapy care. These were all important influences during patient-therapist interactions that potentially impact therapist practices. They could also be barriers to supporting people with back pain from a bio-psychosociocultural perspective in physiotherapy practice.

The patient's personal characteristics and psychosociocultural context was possibly the most important influence because not only was this an independent influencing factor, but it also played an important role in the other influences . The final theme that captures the importance of engagement during interactions was also unique because it was not only considered to influence interactions, but it also appeared to be a desired outcome for physiotherapists during their interactions with patients. Potentially, it could therefore be the mechanism via which the other influences affect physiotherapy outcomes.

Overall, the four interrelated influences suggest factors other than the patient's physical presentation characteristics influence patient-therapist interactions and practices of physiotherapists. Each of the influences appears to be an independent influence, but relationships among the themes suggested their impact is caused by the dynamic interplay among these influences. They also suggest interactions take place in a context where condition complexities intersect with challenges presented by complex interpersonal relationship dynamics. My findings suggest influences on patient-therapist interactions are more complex than was previously given credit to, and that the effects of these influences can be positively or negatively moderated by the nature of the interaction itself. However, interpersonal relational dynamics that emerge during consultations can leave physiotherapists feeling frustrated and disillusioned with the practice of physiotherapy.

Chapter Seven: Discussion

The primary aim of my research was to explore the experiences of physiotherapists supporting people with back pain in private physiotherapy practice to describe perceived influences on patient-interactions that potentially impact their practises. The secondary objective was to provide new insights into barriers to physiotherapists supporting people with back pain from a bio-psychosociocultural perspective in this health setting. To my knowledge, there had not been any previous studies in New Zealand with these objectives. Related studies had surveyed the types of interventions commonly used by physiotherapists working with people with back pain (Hendricks et al., 2013) and explored whether physiotherapists recognised the importance of screening and assessing psychosociocultural risk factors when patients have back pain (Hill et al., 2020; Gray & Howe, 2013). These studies, however, did not explore influences on patient-therapist interactions or barriers to bio-psychosociocultural approaches to supporting people with back pain in private physiotherapy practice. My hope was that new insights and understandings into influences and barriers could help inform ways to improve interactions between people with back pain and physiotherapists. They might also inform strategies to support the implementation of bio-psychosociocultural approaches in physiotherapy practice. Identifying and recommending ways to improve interactions and support people from a bio-psychosociocultural perspective and implementing those recommendations in clinical practice could improve outcomes for people with back pain who consult with physiotherapists.

With these aspirations in mind, the purpose of this chapter is to critically reflect on my findings in the context of existing theory and research that has previously explored influences on patient-therapist interactions, and barriers to supporting people with back pain from a bio-perspective in physiotherapy practice. This Chapter is presented in two parts. In Part One summarises my findings, situates them within the context of my literature review, and describe the new insights they offer. In Part Two, I critically reflect on these new perspectives and explore how they are barriers to supporting people with back pain from a bio-psychosociocultural perspective.

Part One: Summary and situating my findings

My interpretation of the participants experiences revealed four interrelated influences on patient-therapist interactions. These influences impact therapist practises and may also be barriers to biopsychosocial approaches in physiotherapy practice. Those influences were firstly, therapist perceptions about their patient's personal characteristics and psychosociocultural context;

secondly, the nature of patient-therapist relationships and whether they are characterised by confidence and trust; thirdly, tensions between patient's care preferences and expectations and those of their therapist; and finally, whether patients engage with their therapist and physiotherapy care.

Therapist perceptions about their patient's personal characteristics and psychosociocultural context may be the most important influence because those perceptions were both an independent influence during interaction and played a significant role in the other influences. Whether patients engage with their therapist and physiotherapy care was also unique because it appeared to be the desired outcome of strategies physiotherapists used to navigate the difficulties they encountered during interactions with patients. Potentially, it could therefore be the mechanism by which the influences identified affect physiotherapy outcomes.

These influences resonated with my earlier literature review findings (Chapter Two). Studies included in my review also observed that patient-therapist interactions are influenced by beliefs physiotherapists form about their patient's personal characteristics and psychosociocultural context, their perceptions about the nature and quality of the therapeutic relationship, and whether congruency exists between the patient's care preferences and expectations and those of their therapist (Daykin & Richardson, 2004; Jeffrey & Foster, 2012; Josephson et al., 2013; Josephson et al., 2011; Poitras et al., 2012). Further, just as participants in my study felt compelled to compromise their own beliefs and care preferences to avoid relationship conflict, therapists in other studies shared similar experiences (Daykin & Richardson, 2004; Jeffrey & Foster, 2012).

My interpretations also resonate with observations in previous studies that the practises of physiotherapists are influenced by their condition beliefs and treatment orientation (Alsheri et al., 2020; Christe et al., 2021; Daykin & Richardson, 2004; Houben et al., 2005; Linton et al., 2002; Martin-Perez et al., 2022; Pincus et al., 2011; Simmonds et al., 2012). Studies included in my review observed associations between the beliefs and treatment orientation of physiotherapists, and the information and advice they provided to their patients (Alsheri et al., 2020; Christe et al., 2021; Daykin & Richardson, 2004; Derghazarian et al., 2011; Hendricks et al., 2013; Houben et al., 2005; Linton et al., 2005; Pincus et al., 2011; Poitras et al., 2012; Simmonds et al., 2012). Although I did not set out to explore whether associations of this nature also exist in New Zealand, my interpretations suggested participants beliefs influenced their interactions with patients. For instance, participants experienced difficulties forming relationships with patients when their own beliefs conflicted with the beliefs of their patients. Participants beliefs and perceptions about their patients' personal characteristics and psychosociocultural context also influenced how engaged and invested they were in their patients care. These findings are also consistent with observations in other contexts that personal beliefs and experiences with patients influence the practises of physiotherapists (Cote et al., 2009; Christe et al., 2021; Davies et al., 2012; Elvin & Dean, 2017). Unfortunately, reliance on these types of decision-making practices leads to variable and disparate practises among physiotherapists (Davies et al., 2012; Mafi et al., 2013). They also result in less cost-effective approaches to patient care (Hanney et al., 2016).

Previous studies have identified independent influences on patient-therapist interactions. My analysis confirms those influences and extends the findings in those studies by revealing that patient-therapist interactions take place within a more complex inter-personal relational context than previous studies have observed. Within this complex context, influences are interdependent and emerge out of the complexities of relationship dynamics that arise when patients and therapists, with their own unique personal and psychosociocultural characteristics, and beliefs and care preferences, interact within the context of a condition characterised by diagnostic and other uncertainties. My findings also revealed influences reflect the bio-psychosociocultural complexities of the condition. Just as back pain is influenced by interconnected bio-psychosociocultural dimensions, interactions are influenced by challenges arising from the biophysical aspects of the condition, perceptions about people's psychosociocultural context, and tensions that arise from the interpersonal relational aspects of interactions. The difficulties therapists experience navigating these influences appeared to contribute to professional insecurities that are barriers to physiotherapists supporting people with back pain from a bio-psychosociocultural perspective.

My findings, therefore, offer important new insights into the complexity of the context in which many, if not all, interactions between physiotherapists and people with back pain take place. The purpose of the next part of my discussion is to critically discuss how professional insecurities arising from influences on patient-therapist interactions are barriers to supporting people with back pain from a bio-psychosociocultural perspectives in physiotherapy practice. This includes reflecting on therapist beliefs about their professional role responsibilities and the approach's therapists use to navigate uncertainties and their insecurities within this complex relational context.

Part Two: Barriers to supporting people from a biopsychosocial perspective in physiotherapy practice

My analysis revealed that interdependent influences emerged in the moment of therapy out of the complex relational context in which patient-therapist interactions take place. Individually or in combination, those influences were perceived to play a key role in whether patients engage with their therapist and physiotherapy care and whether therapists themselves actively engage with their patients. Professional insecurities emerged from those influences that hindered the implementation of bio-psychosociocultural approaches in physiotherapy practice. My findings revealed that insecurities arise from perceptions therapists have about their patients' personal characteristics and bio-psychosociocultural dimensions, and their own emotional responses to their patients' emotional and psychosociocultural needs. They also revealed that insecurities arose from relationship tensions associated with conflicts between patient-therapist treatment preferences and expectations, and the patients desire to be involved in the decision-making about their care. Confidence-based therapeutic relationships are the foundations for bio-psychosociocultural approaches in physiotherapy practice but influences on patient-therapist interactions cause relationship tensions, undermining relationship formation and supporting people from a bio-psychosociocultural perspective (Cormack et al., 2023; Dalusio-King & Hebron, 2022).

Along with the frustrations and insecurities physiotherapists experience navigating diagnostic and other condition uncertainties, insecurities arising from these influences are associated with feelings of professional inadequacy and loss of control (Costa et al., 2023; Costa et al., 2022). Those feelings and frustrations, and the ways therapists navigate them, undermine confidence to navigate the competing demands to build confidence-based relationships, while simultaneously offering support to patients in ways that reflect the bio-psychosociocultural dimensions of their presentations. Beliefs about the adequacies of their professional training, and understandings of their responsibilities that do not reflect the requirement to support people from a bio-psychosociocultural perspective, are barriers to bio-psychosociocultural approaches to patient care. Insecurities arising from influences during patient-therapist interactions leave therapists frustrated and disillusioned with the practice of physiotherapy.

Insecurities and emotional labour arising from perceptions about patient personal characteristics and psychosociocultural dimensions.

Perceptions physiotherapists in my study had about their patients' personal and psychosociocultural characteristics, and preferences and expectations for their care, were important factors influencing interactions. Consistent with observations in previous studies (Elven & Dean, 2017), their observations about people's physical presentations, perceptions about their personal characteristics, beliefs, expectations, emotions, and psychosociocultural context, informed their beliefs about the patient's prognosis and influenced their decision-making practices. This also resonates with previous research suggesting physiotherapists take more than their patient's physical presentation characteristics into consideration, and contextual factors are an important influence when decisions are being made about a patients care (Daykin & Richardson, 2004; Elven & Dean, 2017; Josephson et al., 2011; Josephson et al., 2013; Jeffrey & Foster, 2012; Widerstrom et al., 2021; Widerstrom et al., 2019). Elven and Dean's (2017) qualitative systematic review and meta-synthesis for instance, identified contextual factors influenced therapist decision-making practices, including perceptions about patient a) beliefs and expectations, b) cognitive or psychosociocultural dimensions, and c) whether patients appear willing to engage in a therapeutic relationship. More recently, Widerstrom et al. (2021) also observed that rather than making clinical decisions based on physical presentation findings, physiotherapists base their decisions on their preconceived beliefs about the condition and their perceptions about their patient's personal or psychosociocultural characteristics.

Perceptions about their patients' personal and bio-psychosociocultural characteristics, beliefs and expectations, and the patient's willingness to engage, were also important sources of insecurities that undermined whether the therapists in my study supported patients from a bio-psychosociocultural perspective. This interpretation of the influence of insecurities arising from a patient's personal characteristics and psychosocial context resonates with findings from past research that suggests physiotherapists experience professional insecurities when attempting to navigate challenging interpersonal relational dynamics arising from their patient's personal characteristics or psychosociocultural context (Cowell et al., 2018; Costa et al., 2022; Costa et al., 2023; Gervais-Hupé, et al., 2023; Ng et al., 2021; Singla et al., 2014; Synott et al., 2015; Van Dijk et al., 2022). Together with insecurities arising from patho-anatomical attribution uncertainties, and patient treatment preferences and expectations, insecurities arising from perceptions about their patient's personal or psychosociocultural characteristics undermine confidence to build the types of therapeutic relationships that are the foundations for person-centered bio-psychosociocultural approaches to care. Bio-psychosociocultural approaches require physiotherapists to build confidence-based therapeutic relationships to implement approaches that reflect not only the patient's care preferences, but also the bio-psychosociocultural dimensions of their condition (Cormack et al., 2023; Dalusio-King & Hebron, 2022; Smart, 2023). Uncertainty about how to respond to patients when they are perceived to have more challenging personal characteristics or reveal complex psychosociocultural needs, or how to navigate conflict arising from tensions between patient-therapist beliefs and care preferences, contribute to insecurities that undermine bio-psychososciocultural approaches in physiotherapy practice (Cowell et al., 2018; Costa et al., 2022; Costa et al., 2023; Ng et al., 2021; Singla et al., 2014; Synott et al., 2015).

Many physiotherapists, including those sampled in my study, are uncertain about how to build confidence-based therapeutic relationships with patients who they perceive have challenging personal characteristics or complex psychosociocultural needs (Cowell et al., 2018; Gervais-Hupé, et al., 2023; Ng et al., 2021; Sanders et al., 2013; Singla et al., 2015; Synott et al., 2015; Van Dijk et al., 2022). They find interactions challenging when they believe these factors contribute to relationship barriers, and the confidence to support patients in these situations is eroded by the belief that their professional training has not equipped them with the skills needed to navigate relationship challenges (Cormack et al., 2023; Costa et al., 2023; Costa et al., 2022; Ng et al., 2021). Many physiotherapists also believe that offering emotional or psychological support to patients is outside their professional scope of practice (Cowell et al., 2018; Gervais-Hupé, et al., 2023; Ng et al., 2021; Van Dijk et al., 2022).

Insecurities arising from perceptions about their patients' personal and bio-psychosociocultural characteristics, beliefs and expectations, and their willingness to engage was also a source of emotional labour for the therapists sampled. Hochschild's (1983) emotional work theory, when applied to health care practice, posits that the art and act of offering care, empathy, and compassion for patients in clinical practice, is emotional labour since it requires both skills, resources, and conscious effort (Riley & Weiss, 2015; Smith, 2012). In the caring professions, emotional labour has therefore been defined as the way health care professionals manage their own emotions and those of their patients and can impose a considerable drain on their emotional and intellectual resources during the encounter (Smith, 2012). Emotional work theory acknowledges that what we feel and how we respond during interactions is influenced by socially constructed "*feeling rules*" which govern what feelings or emotions we should feel or display in any given social context (Hochschild, 2003). As Hochschild (2003) suggests, " … *when we are on stage performing, we do not always show what we feel or feel what we show …*" (p7). This leads to what Hochschild describes as "surface" or "deep" acting to manage emotions by suppressing or manipulating them to present a socially acceptable or expected self-image to others.

My interpretations revealed that interactions with patients who were considered complex, had unrealistic expectations, or did not engage with their therapist, were a source of negative emotions during interactions. Uncertainties about how to respond to these types of patients gave rise to feelings of frustration, professional inadequacy, and loss of control. The emotional labour associated with navigating these feelings and presenting a socially acceptable image to patients took an emotional toll on some of the participants. Participant seven for example stated that " … *forming* *special connections with patients all day was tiring…*" and participant four expressed that the internal dissonance he experienced when he was required to provide treatments he did not believe were in his patients' best interests, left him feeling frustrated and "*…disillusioned with the practice of physiotherapy…*". These interpretations of the participants experiences were consistent with the observations in an earlier study performed with other physiotherapists working in private practice in New Zealand where Foster & Sayer (2012) also found that therapists experienced negative emotions such as frustration, disheartenment, and feelings of professional inadequacy, during patient interactions. Together, these findings suggest interactions with patients involves an intrapersonal emotional labour where interactions with patients can cause negative therapist emotions, and therapists are required to put "*effort*" into finding strategies that turn their feelings into appropriate situational responses (Foster & Sayers, 2012)

Strategies therapists use to navigate the negative emotions and insecurities that are associated with their patients' personal and bio-psychosociocultural characteristics, beliefs and expectations, and their willingness to engage, may be examples of strategies therapists use to manipulate their self-image and the emotional labour that is associated with the insecurities that arise from the requirement to respond to their patients emotional and psychological needs. In other health contexts Smith and Kleinman (1989) observed that a wide range of emotionally distancing strategies were employed by health care professionals to cope with the emotional labour of their work. Those strategies include distancing themselves from the emotional or psychosocial dimensions of their patients by advancing that these dimensions are outside their scope of practice, and relying on the "*arm's length*" transactional approaches to practice favoured within positivist paradigm approach to practice where therapists are positioned as expert rational objective operators, rather than person-centred interactors with their patients. Physiotherapists need support and training to help them develop the skills and reflexivity needed to navigate the emotional labour that is in inherent aspect of their occupation. This may be especially important given the increasing levels of compassion fatigue, healthcare provider work-related stress, and burnout experienced by health care professionals (Sinclair et al., 2017)

Epistemic injustices arising from perceptions about patient personal characteristics and psychosociocultural dimensions.

In addition to peoples' personal characteristics and psychosociocultural dimensions being a source of uncertainty, professional insecurity, and emotional labour, therapist perceptions about their patients' personal characteristics and psychosociocultural dimensions are also a potential source of epistemic injustice within patient-therapist interactions. Miranda Fricker's concept of epistemic injustice refers to forms of social injustice that manifest as a "*wrong done to someone specifically in their capacity as the knower*" (Fricker, 2007). Health care professionals, including physiotherapists, by virtue of their professional training, perceived expertise, and third part positivist paradigm psychology, are considered to be epistemically privileged during interactions with patients (Buchman et al., 2017; Carel & Kidd, 2014). Patients with health conditions such as back pain often present with pain induced cognition challenges, condition anxieties, and emotional labilities, and these can either be met with empathy and compassion, or therapist incapacitation, anxiety, and insecurity, and a tacit fall back to reliance on stereotypes about patients that include negative epistemic prejudice Buchman et al., 2017; Kidd & Carel, 2017).

For example, the physiotherapists in my study classified patients as simple or complex and difficult based on perceptions about their personal traits, emotional or psychological contexts, and willingness to engage in the therapeutic relationship. These and other ways they stereotyped their patients had important consequences during their interactions including influencing the types of care the patient would receive, and how much time or emotional energy participants would invest in their patients care. There was also a prevailing sense within the participants experiences that because of their patient's personalities, cognitions, beliefs and expectations, or their psychological or emotional context, that "*you just can't help some people*" (*Seventh participant*).

These types of negative stereotypes or judgments about patients are a source of epistemic injustice during patient-therapist interactions because negative stereotypes about patients undermine their capacity to act as a testifier i.e. a reliable giver of information about themselves (Kidd & Carel, 2017). They introduce what Fricker (2012) terms "*credibility deficits"* whereby the patient's testimony about their condition experience is accorded a lower degree of epistemic credibility than their account of their experience would otherwise receive if negative stereotyping was not present (Buchman et al., 2017). This does not mean the patient's self-report of their condition is not believed, rather it means that their concerns and perspectives are attributed inferior epistemic status such that their accounts are dismissed as *"… as idiosyncratic experiences shaped by the negative attitudes of the ill person as a moaner or … [as someone] … who expects to much…"* (Kidd & Carel, 2017).

As Carel and Kidd (2014) state, patients in health care, are often victims of testimonial epistemic injustices because they are stereotyped as cognitively unreliable, emotionally compromised, or existentially unstable in ways that render their render their attempts to communicate their symptom experiences and concerns as suspect. Where testimonial injustices occur, patients therefore, often feel their concerns and perspectives are ignored and marginalised, and that they are epistemically excluded from the decision-making process by their therapist (Buchman et al., 2017). Carel and Kidd (2014) suggest that health care professionals either respond to their patient's cognition challenges, anxieties, and emotions, with compassion and empathy, or falling back on unconscious deeply held negative prejudices or judgments about the patient that diminish their epistemic agency. In these situations, the epistemic injustice is compounded when the therapist, acting out of the belief that the patient is cognitively impaired, or emotionally and psychologically compromised, capitalises on the power imbalance implicit within the therapeutic relationship to paternalistically manipulate the patient into agreeing with their recommended plan of care (Buchman et al., 2017).

The basis for epistemic injustices arising from therapist perceptions and responses to their patients' personal characteristics and psychosociocultural dimensions also lie in the potential gap in the hermeneutical resources between physiotherapists and their patients. Discriminatory hermeneutical epistemic injustices can occur if there is a gap between the collective interpretive resources of patients and therapists that disadvantage the patient when they try to make sense of and convey their condition experiences to their therapist (Carel & Kidd, 2017). According to Fricker (2007) hermeneutical injustices of this nature manifest in two ways. Firstly as strategies of expression, and secondly, as strategies of exclusion (Fricker, 2007). Strategies of expression arise when a patient's style of communicating their needs and experiences is not recognised as rational and contextually appropriate or is implicitly and derogatively interpreted as irrational (leading for example to the patient being labelled as difficult or challenging)(Fricker 2007). Strategies of exclusion on the other hand, arise from the therapist's response to the patient's expressions. This occurs for example when the patients attempt at communication are implicitly and derogatively interpreted as irrational, leading to their therapist paternalistically excluding the patient from the decision-making (Fricker, 2007). Both forms of hermeneutical injustices can lead to a vicious cycle of frustration for the patient and increasing hermeneutical marginalisation and disenfranchisement they resort to more extreme displays of communication in their attempt to be heard (Fricker, 2007).

Patients are also vulnerable to hermeneutical epistemic injustices because they are in a position of vulnerability and dependence on their health care professional (Buchman et al., 2017). By virtue of their training and expertise, physiotherapists are considered to enjoy epistemic privileges that erode their patients social and epistemic confidence and capacities during clinical interactions (Buchman et al., 2017). Structures of contemporary healthcare practice, and positivist paradigm practices, also encourage hermeneutical injustices by not denying patients epistemic agency, and by privileging certain styles of communication between patients and therapists (Carel and Kidd (2014). For instance, positivist paradigm approaches to physiotherapy practice privilege and prioritise impersonal and objectivist approaches by therapists during interactions (Carel & Kidd, 2014). Positivist paradigm approaches to practice, including fragmenting bio-psychosociocultural dimensions into independent causative elements, structurally disable certain types of patient testimonial and hermeneutical activities, including attempts by patients to convey their concerns and emotions to provoke compassion and empathy from their therapist. This reflects a wider perspective based on positivist philosophical assumptions that patients should express their concerns "cooly and dispassionately" rather than emotively during consultations with health care professionals (Carel & Kidd, 2014).

Consequently, if physiotherapists operate using a positivist epistemological lens, their "*…rationalistic prejudices will unavoidably find it difficult to regard the expressive styles that ill persons find both as natural and appropriate or properly rational…*" Carel & Kidd, p 185). Kidd and Carel (2017) suggest that hermeneutical injustices generally cause a double injury because the marginalisation of the patient's resources and expressive style exacerbates the already considerable hermeneutical challenges that patients face. Hermeneutical frustrations that patients experience in these situations as they attempt to be heard and understood by their therapist, might result in them becoming increasingly emotive, fraught and tense. The more their emotive communication strategies escalate, the more likely it is that their therapists perceive them as becoming epistemically more unreliable, fulfilling the initial prejudices inherent in negative stereotypes about patients.

However, although patients are considered to be vulnerable to hermeneutical injustice because they are considered to have less hermeneutical resources than their health care professional, it could also be that their hermeneutical resources are either not recognised or respected by the epistemically dominant health care professions, or that the potential gap between the hermeneutical resources of patients and therapists is due to the inadequacies of the therapist's hermeneutical resources (Buchman, Ho & Goldberg, 2017). The social implications of hermeneutical marginalisation arise because the inability of physiotherapists to recognise and respond to the concerns and experiences of their patients is premised upon the adequacy of their own hermeneutical resources to empower them to do so (Buchman et al., 2017). As Buchman et al. (2017) explains, if health care professionals do not possess adequate hermeneutical resources that allow them to respond with compassion and empathy to their patients concerns and needs, the patients experience and perspectives will remain obscure, and the therapist will be prevented from responding appropriately to them. Patients are, therefore, considered vulnerable to hermeneutical injustices and paternalistic practices from physiotherapists because their condition experiences and its impact on their life can be difficult for them to make sense of and communicate in a way that their therapists might respond to, but patients are also vulnerable to hermeneutical injustices and paternalistic practices because of the inadequacy of the therapists' own resources.

Overcoming epistemic injustices arising from therapist perceptions about their patients' personal characteristics and psychosociocultural dimensions during interactions is fraught with many challenges. As Buchman et al. (2017) suggests, many factors present obstacles to epistemic justice in health care practice. Health care professionals are often:

> "…overworked and overburdened …. [and] … opportunities to hold compassionate and empathic dialogues regarding the patient's pain concerns in an emotionally charged context can be limited. In short visits …[health care professionals] … are expected to form partnerships with patients with complex biomedical and psychosocial problems, provide effective interventions, coordinate care with other health care professionals, and ensure decision-making that respects their patients' needs and preferences…." (p 39)

Fricker (2007), however, argues that like most intellectual virtues "*…epistemic justice can be acquired through repeated efforts of critical reflection…*". Physiotherapists must strive towards epistemic humility in their practice by demonstrating compassion and empathy and creating the space for patients to share their emotions and psychological experiences. Patients need to be free to tell their stories free from the prejudicial judgments from health care professionals that lead to testimonial injustices and hermeneutical injustices of expression and exclusion (Buchman et al., 2017. Creating space for people with health conditions to share their narratives and their disempowerment can also reduce power imbalances that nurture epistemic injustice (Kleinmann, 1992; Naylor, Killingback & Green, 2023).

Creating space and empowering patients to reduce epistemic injustices requires therapists to develop new skills. The sharing pf power in patient-therapist relationships requires a willingness or "*clinical bravery*" on the part of the therapist to allow the patient to express, and for the therapist to hear, the patient's narrative (Naylor et al., 2023). Clinical bravery means a form of physiotherapy that emphasises openness, vulnerability, and addresses power imbalances (Naylor et al. (2023). This means

" … a willingness to follow the conversation where the patient needs to take it and reaching beyond the traditional musculoskeletal physiotherapists remit by moving clinicians out of their comfort zone, for example, engaging with a patient's psychological distress, emotional reactions, or conflict …" (Naylor et al., 2023, p 958).

Overcoming epistemic injustices during interactions requires both clinical bravery and a genuine interest in the patients experience. It also requires therapists to recognise and reflect on the ways that negative stereotypes and prejudices influence their assumptions about their patients' personal characteristics and psychosociocultural dimensions. In turn, this will reduce the credibility deficits they attribute to their patient's communication of their condition experience (Buchman et al., 2017). Correcting for prejudicial credibility judgments that therapists make about the patients to navigate their own uncertainties and insecurities may be the starting point towards demonstrating trustworthiness to patients and epistemic justice during interactions. Finally, epistemic humility requires physiotherapists to critically reflect on the implicit assumptions that place their scientific and medical knowledge in an epistemically higher position than their patient's own knowledge and expertise as the knower (Buchman eta l., 2017). Epistemic humility does not reject clinical expertise, rather it encourages physiotherapists to acknowledge the limits of their knowledge and clinical expertise, especially when there is incomplete knowledge about the patient's condition, and the patient is striving to heard and understood. To do this, therapists may need to develop their own hermeneutical resources and demonstrate the trait of clinical bravery.

Navigating insecurities arising from people's personal characteristics and psychosociocultural dimensions.

Physiotherapists experience difficulties navigating their insecurities and the emotional labour associated with patients who are perceived to have challenging personal characteristics or reveal complex emotional or psychosociocultural needs. For instance, although the therapists in my study recognised their patients' emotional needs and psychosociocultural dimensions, and understood their importance to the outcome, their uncertainty about how to respond to those needs, coupled with their beliefs about their professional responsibilities and scope of practice, led them to focus on the physical aspects of people's presentations to navigate their insecurities and manage the emotional work that accompanied their own uncertainties. Those insecurities led to epistemic injustices and undermined supporting their patients from a bio-psychosociocultural perspective.

Experiences with patients in clinical practice, however, teach physiotherapists how to navigate their emotional labours and build relationships with patients who have challenging personal characteristics or complex psychosociocultural needs. These experiences teach them that building relationships based on trust and confidence helps them navigate interactions with patients, and their own insecurities, when relationship tensions arise. By establishing rapport, listening to their patients' concerns, and demonstrating care and empathy, they learn to navigate relational barriers, and minimize their own emotional labours with the end goal being to empower patients to engage in their physiotherapy interventions. They had also learned that it was easier to engage with and navigate their patient's condition beliefs and treatment expectations within the context of confidence-based relationship.

Studies exploring expectations patients have of physiotherapist's have observed that patients value these types of relational practises (Lim et al., 2019; Hopayian & Notley, 2014; O'Keefe et al., 2016; Verbeek et al., 2004; Zuman et al., 2020). Relationships based on trust and confidence are also the foundations of bio-psychosociocultural approaches to patient care (Dalusio-King & Hebron, 2022; Mescouto et al., 2022a). However, when therapists adopt these practices for the purpose of navigating their own professional insecurities and emotions, or covertly build relationships for the purpose of persuading patients to change their beliefs or expectations, it perpetuates power imbalances in the relationship and may be the antithesis of a bio-psychosociocultural approach in physiotherapy practice (Bright et al., 2020; Buchman, Ho & Goldberg, 2017; Mescouto et al., 2022b). Bright et al. (2020) describes these types of practice as *benevolent manipulation* where health care professionals attempt to persuade their patients by covert means to make good decisions about their care. Though well intentioned, it is unclear whether such approaches are designed to help patients make appropriate care choices or are designed to help therapists navigate their own insecurities (Bright et al., 2020).

Whatever the intention, it is questionable whether these practises reflect person-centred approaches to patient care, and they are also likely to be examples of epistemic injustice during patient-therapist interaction. As discussed previously, patients are particularly vulnerable to epistemic injustices during interactions with health care professionals because they are in a position of vulnerability and dependence, and because they are considered to have less hermeneutical resources than their health care professional, (Buchman et al., 2017). By virtue of their training and expertise, physiotherapists are considered to enjoy epistemic privileges that erode their patients social and epistemic confidence and capacities during clinical interactions (Buchman et al., 2017). Structures of contemporary healthcare practice, and positivist paradigm practices, also encourage hermeneutical injustices by not denying patients epistemic agency (Carel & Kidd, 2014). Patients are, therefore, considered vulnerable to hermeneutical injustices and paternalistic practices from physiotherapists because their condition experiences and its impact on their life can be difficult for them to make sense of and communicate in a way that their therapists might respond to, but patients are also vulnerable to hermeneutical injustices and paternalistic practices because of the inadequacy of the therapists' own resources. Trust is central to the therapeutic relationship and as discussed earlier, health care professionals should always strive towards epistemic justice and humility in their practises (Buchman, 2017)

Other approaches therapists rely on to navigate insecurities and emotional labours arising from their patient's personal characteristics and psychosociocultural context also undermined bio-psychosociocultural approaches in physiotherapy practice. Resonating with the findings in an earlier study by Slade, Molloy, and Keating (2012), and other studies (Gervais-Hupé, et al., 2023; Ng et al., 2021; Van Dijk et al., 2022), therapists in my study navigated their insecurities by fragmenting people's bio-psychosociocultural dimensions into independent causative factors and relied on beliefs about the inadequacies of their professional trainings and scope of practice to justify prioritising the biophysical dimensions. This is also a common strategy used by health care professionals to navigate the the negative emotions that arise from their patients' personal and bio-psychosociocultural characteristics, beliefs and expectations, and their willingness to engage (Smith & Kleinman, 1989). However, approaches that fragment bio-psychosociocultural dimensions of peoples' presentations into independent causative factors do not reflect the complexities and interrelationships among the factors contributing to the condition (Cormack et al., 2023; Dalusio-King & Hebron, 2022; Mescouto et al., 2022a). Back pain is a complex multi-dimensional condition where the patient's symptoms emerge from, and are maintained by relationships amongst overlapping biophysical, psychological, and sociocultural factors (Hartvigsen et al., 2018).

Fragmenting the patient's presentation into independent physical, psychological, or sociocultural domains, and treating them as unconnected causative elements, provides a rationale for prioritising physical aspects of the patient's presentation in line with beliefs about scope of practice and expertise. It also creates the"*arm's length*" transactional approaches to practice favoured within positivist paradigm approach to practice where therapists are positioned as expert rational objective operators, rather than person-centred interactors with their patients. However, it also ignores the interconnectedness of bio-psychosociocultural dimensions and may explain why approaches physiotherapists use with their patients have been unsuccessful at improving patient outcomes (Cormack et al., 2023; Mescouto et al., 2022a; Mescouto et al., 2022b; Stillwell & Harman; 2019;

Zusman, 2013). The fragmentation of bio-psychosociocultural dimensions into independent causative factors and marginalises psychosociocultural aspects are discussed further in relation to how therapists navigate uncertainties and insecurities associated with diagnostic and other condition uncertainties. Such approaches are also the antithesis of bio-psychosociocultural approaches in physiotherapy practice.

Insecurities arising from diagnostic and other condition uncertainties.

Peoples' personal characteristics and psychosociocultural contexts, and tensions between patient-therapist care preferences and treatment expectations, were not the only sources of professional insecurities that were barriers to the therapists in my study supporting patients from a bio-psychosociocultural perspective. Consistent with findings in earlier research, difficulties identifying symptom causes and diagnostic-curative treatment pathways also caused uncertainties and professional insecurities that were barriers. Like the therapists sampled in Costa et al. (2023) and Slade et al. (2012), participants in my study felt pressured to provide biomedical explanations for the causes of people's symptoms and feared that that revealing uncertainties would undermine their relationships. They believed that patients would interpret this as a lack of knowledge or professional competence (Costa et al., 2023; Slade, et al., 2012). As Participant One reflected: "… *telling patients they have non-specific low back pain and that it is almost impossible to isolate the exact structure ... they are probably not going to have confidence in you … or be impressed by your diagnostic skills* ….". In this participants' experience, it was easier to gain their patient's confidence and trust if they provided a diagnosis that was compatible with the patient's beliefs. They believed patients became confused, and frustrated, and were less likely to engage if they did not receive a clear diagnosis or explanation for their symptoms. Condition uncertainties, therefore, contributed to their insecurities and undermined their confidence during interactions with patients.

These findings resonate with observations in earlier studies that uncertainties associated with the diagnosis or management of back pain contribute to insecurities and influence therapist practises (Costa et al., 2023; Ng et al., 2021; Simmonds et al., 2012; Simmonds et al., 2012; Slade, et al., 2012). They also affirmed that rather than acknowledging and exploring diagnostic, and other condition uncertainties with patients, physiotherapists fall back on biomedical approaches to maintain their professional credibility and manage their own emotions and insecurities (Costa et al., 2023; Simmonds et al., 2012; Slade, et al., 2012). People with back pain are often perceived by physiotherapists to be more difficult to manage than patients with other musculoskeletal conditions because of diagnostic and other condition uncertainties (Christe et al., 2021; Sullivan, Hebron &

Vuoskoski, 2019), and therapists feel pressured to provide biomedical explanations for the patient's symptom causes (Cowell et al., 2018; Mescouto et al., 2022b; Ng et al., 2022; Simmonds et al., 2012). Difficulties describing the etiology of the condition and specific symptom causes, and challenges identifying effective management strategies for individual patients, are sources of confusion and frustration that undermine confidence and contribute to feelings of professional inadequacy during interactions (Costa et al., 2023; Pincus, Greenwood & McHarg, 2011; Jackson, 2011; Simmonds et al., 2012; Sullivan et al., 2019).

Prescribing effective individualised treatment pathways for instance, are also sources of insecurities as patient responses to treatments are variable and typically of short duration, and physiotherapists are often confused about which, if any, of the interventions they commonly use are likely to make meaningful differences for individual patients (Costa et al., 2023; Costa et al., 2022; Foster et al., 2018; Maher et al., 2017). Many physiotherapists, including the therapists in my study, believe they lack the skills required to convey these uncertainties to patients without compromising their own professional credibility, or adding to the cognitive or emotional factors that influence their patient's symptoms (Costa et al., 2023; Costa et al., 2022; Rhodes et al., 1999; Serbic & Pincus, 2014). As Costa et al. (2023) explained, these and other challenges associated with the diagnosis and management of the condition can become causes of relationship tensions if therapists lack the skills to work sensitively within the context of these complexities. Together these factors also combine to increase the emotional work that is the necessary pre-requisite to an empowering person-centred approach to patient care (Sinclair et al., 2023)

Uncertainty about how to navigate their patients cognitive and emotional responses to diagnostic, and other condition uncertainties, compound therapist insecurities relating to this aspect of patient interactions (Costa et al., 2023; Costa et al., 2022). They also compound the insecurities and emotional labours that are associated with navigating their patients psychosociocultural dimensions. Just as condition uncertainties are sources of confusion and frustration for therapists, they cause confusion and frustration for patients who attend consultations expecting a socially acceptable diagnosis for their symptoms (Hopayian & Notley, 2014; Lim et al., 2019; Sanders & Roberts, 2018), and believe that diagnosis is necessary to prescribe a treatment pathway (Dima et al., 2013; Hoffman et al., 2013; Verbeek et al., 2004). Many patients will not engage in active rehabilitation approaches if there is confusion about the cause of their symptoms (Miciak et al., 2018). Condition uncertainties are also associated with increases in the patient's emotional responses to their pain, and other psychological aspects including their anxiety, catastrophising, and fear avoidance behaviours (Quartana, Campbell & Edwards, 2009; Linton, McCracken & Vlaeyen, 2008; Serbic & Pincus, 2014). Uncertainty about how to navigate people's psychological and emotional responses to diagnostic uncertainty increases therapist insecurities and the emotional labour they experience during the interaction (Buchman et al., 2017; Costa et al., 2023; Costa et al., 2022; Slade et al., 2011). Together, the emotional responses of patients and their therapists to diagnostic and other condition uncertainties contribute to professional insecurities and are important barriers to supporting people with back pain from a bio-psychosociocultural perspective in physiotherapy practice.

Navigating insecurities arising from diagnostic and other condition uncertainties.

Resonating with findings in previous research, despite awareness of the multidimensional bio-psychosociocultural nature of the condition, in their attempts to navigate their insecurities the therapists in my study fragmented peoples' bio-psychosociocultural dimensions into independent causative factors and prioritized targeting biophysical factors (Slade et al., 2016; Slade et al., 2012; Simmonds et al., 2012). Just as this strategy was used to navigate insecurities arising from people's emotional dimensions and psychosociocultural contextual features, it was also a way they navigated insecurities arising from diagnostic and other condition uncertainties. As the first participant again reflected, when symptom causes were unclear, or the patient was not improving, rather than acknowledging bio-psychosociocultural complexities and exploring them with her patients, she performed "*… bigger biomechanical assessments …*". Her hope was that an improved physical evaluation would reveal an explanation for her patient's symptoms, and a logical curative treatment pathway.

This practice is consistent with observations in previous research that many physiotherapists rely on and prioritise pseudo-diagnostic biomedical examination findings to navigate the influence of diagnostic, and other condition uncertainties, on themselves and their patients (Almond et al., 2021; Costa et al., 2023; Mescouto et al., 2023; Slade et al., 2012; Sullivan et al., 2019). Subjective impairments such as abnormal postures or movement patterns, diminished or excessive translatory joint motions, or changes in muscle activation and recruitment patterns, offer the promise of diagnostic certainty, and logical curative treatment pathways where therapists match interventions to physical impairments (Costa et al., 2023; Mescouto et al., 2023; Slade et al., 2011). For therapists who are not comfortable interacting with patients within a context of uncertainty, or who are not confident managing or responding to peoples' emotions, pseudo-diagnostic biomedical examination findings offer certainty and enable them to approach the interaction feeling in control of the relationship, and without feelings of professional inadequacy (Slade et al., 2012; Sullivan et al., 2019). However, failing to acknowledge diagnostic and other uncertainties, and adopting approaches that marginalise contextual and psychosociocultural elements that contribute to the condition, undermine bio-psychosociocultural approaches to patient care (Buchman et al., 2017; Cormack et al., 2023; Costa et al., 2022; Costa et al., 2023; Mescouto et al., 2022a; Simpkin & Schwartzstein, 2016).

Although well intentioned, promoting pseudo-diagnostic biomedical examination findings as condition causes, and using them to market diagnostic-curative treatment pathways to patients, also reflect Bright et al.'s (2020) concept of benevolent manipulation and be examples of the antithesis of person-centered bio-psychosociocultural approaches in physiotherapy practice. Patients, often, already believe that the cause of their symptoms is structural or pathoanatomical, and that physical abnormalities need to be corrected before their symptoms will resolve (Caneiro, Bunzli & O'Sullivan, 2021; Christe et al., 2021; Dima et al., 2013). Those beliefs are also highly prevalent among people in New Zealand (Darlow et al., 2014). People similarly believe physiotherapy interventions target structural changes in the properties of tissue that are associated with their impairments (Christe et al., 2021; Plank et al., 2021; Demoulin et al., 2017; Thomas et al., 2023).

However, few, if any, of the pseudo-diagnostic biomedical examination findings commonly relied on by physiotherapists have satisfactory evidence of their reliability and validity to enable them to be marketed with certainty to patients as condition causes (Denteneer et al., 2018; Ferrari et al., 2015; Hancock et al., 2007; Nolet et al., 2021). For example, in a systematic review of clinical examination procedures to identify the intervertebral disc, sacroiliac joint, of facet joint as the source of low back pain, Hancock et al. (2007) concluded that many physical evaluation procedures commonly relied on in clinical practice by physiotherapists have inadequate sensitivity or specificity to be considered valid for identifying or excluding specific symptom causes. Ferrari et al. (2015) similarly observed that there is minimal evidence to support the validity of popular evaluation procedures used by physiotherapists to identify conditions associated with instabilities of the lumbar spine. Questions over the reliability and validity of physical evaluation procedures to identify causes of back pain are not restricted to the findings of the physical evaluation. Uncertainties also undermine the diagnostic accuracy of the history taking and subjective evaluation including questions over the diagnostic accuracy of peoples' self-report of their symptoms as a reliable and valid way to identifying potential causes of the condition (Shultz et al., 2015).

Approaches that are based on pseudo-diagnostic biomedical examination findings are also undermined by findings in studies that question whether clinical outcomes for patients with back pain are contingent on corresponding changes in the musculoskeletal structures or physical impairments that physiotherapy interventions target (Kent, Mjøsund, & Petersen, 2010; Koppenhaver et al., 2011; Lee Mansell et al., 2017; Mannion et al., 2012; Steiger et al., 2012; Zielinski et al., 2013). There appears to be a weak relationship between changes in the musculoskeletal system and changes in pain, disability, and function in patients (Lee Mansell et al., 2017). For example, both Wang et al. (2012) and Smith, Littlewood, and May (2014) when performing meta-analysis of studies evaluating the effectiveness of core stabilisation exercises for back pain compared to other forms of exercise concluded that these exercises are effective at reducing pain and improving function in the short term, but there is no conclusive evidence that changes in these outcome measures occur as a result of changes to the neuromuscular activation or morphology of the muscles targeted during rehabilitation.

Similarly, recent meta-analysis of studies where physiotherapists select and match manual therapy techniques to their patients' impairments, or to specific levels of the spine (Kent, Mjøsund, & Petersen, 2010; Sorensen et al., 2023), demonstrate that tailoring and matching treatments do not positively impact patient outcomes compared to general interventions. Sorensen et al. (20230 for instance observed that targeting specific vertebral levels when administering spinal manual therapy for people with back pain did not result in improved outcomes compared to non-targeted approaches. Withholding this information may enable therapists to approach interactions with greater confidence in their professional knowledge and competence, but as Katz (1984) suggests, that this does not demonstrate honesty in the face of uncertainty and establishes a therapeutic relationship based on evasions, half-truths, and even lies.

Diagnostic explanations based on pseudo-diagnostic biomedical examination findings and promising patient's diagnostic-curative impairment-based treatment pathways can also have unintended negative consequences for patients. For instance, for some patients with back pain, explanations based on physical examination findings reinforce non-evidence-based patient beliefs (Darlow et al., 2013; Darlow et al., 2014), and are associated with increased pain, pain-related disability, and fear avoidance behaviours (Coudreye et al., 2006; Poiraudeau et al., 2006). Advising patients that physical abnormalities are the cause of their symptoms can cause them to dismiss positive reassurances from their therapist about their likely prognosis (O'Keffe et al., 2022; Pincus et al., 2006; Sloan & Walsh, 2010). The findings in these studies are consistent with Lin et al.'s (2013) observation that information and advice provided by health care professionals to some patients, although well intentioned, contributes to their long-term disability.

Offering curative impairment-based treatment pathways based on pseudo-diagnostic examination findings also risks marginalising the contextual and psychosociocultural dimensions of the effects of physiotherapy interventions. When therapists provide explanations that link treatment effects to rectifying non-evidence-based physical impairments, they prevent patients from receiving information that improves their understanding of how the psychoneurobiological effects of physiotherapy interventions influence their outcomes (Bialosky et al., 2009; Bialosky et al., 2018; Blasini et al., 2017; Rossettini et al., 2020b). Just as condition causes have complex bio-psychosociocultural dimensions, the mechanisms associated with the effects of physiotherapy interventions are also multi-dimensional (Lee Mansell et al., 2017). Treatment outcomes are achieved through a complex interaction among contextual and interconnected psychological, neurophysiological, and biological dimensions (Bialosky et al., 2018; Blasini et al., 2017; Rossettini et al., 2020b).

Although it is unclear which combination of contextual and psychoneurobiological effects are responsible for changes in pain and disability for individual patients, physiotherapy interventions influence symptoms through mechanisms that include changes in the properties of tissue that interventions target, but intervention effects are also non-specific and contextual (Kent, et al., 2010; Koppenhaver et al., 2011; Lee Mansell et al., 2017; Mannion et al., 2012; Sorensen et al., 2023; Steiger et al., 2012; Zielinski et al., 2013). Physiotherapists, therefore, should not be promoting explanations to patients that suggest interventions exclusively target physical impairments based on pseudo-diagnostic examination findings to reduce their own insecurities. It is possible that patient-therapist interactions, and the outcomes of physiotherapy interventions, may be enhanced by acknowledging the difficulties associated with identifying diagnostic-curative treatment pathways to patients, and providing evidence-based information about the psychoneurobiological effects of interventions so that patients understand the links between the bio-psychosociocultural dimensions of their condition, and approaches physiotherapists recommend for their care.

Scope of practice and professional role responsibilities

Approaches that fragment bio-psychosociocultural dimensions into independent causative factors to navigate insecurities and emotional labours arising from people's personal characteristics and psychosociocultural contextual features, or uncertainties that are associated with the diagnosis or treatment of the condition, also do not reflect modern conceptualisations of the responsibilities of physiotherapists (Mescouto et al., 2022a; Mescouto et al., 2023; Nicholls et al., 2016; Stillwell & Harman, 2019; Smart, 2023). Patients with complex psychological or sociocultural needs should be encouraged to seek support from appropriately qualified health care professionals. However, when patients reveal their emotional and psychosociocultural needs, physiotherapists have a responsibility to respond with compassion and empathy so that patients perceive their emotional and psychosociocultural needs and concerns have been understood and will be reflected in their plan of care (Mescouto et al., 2023; Nicholls et al., 2016; Stillwell & Harman, 2019; Hutting et al., 2022; Trzeciak et al., 2017). Just as patient's want therapists to provide personalised advice and information using language they understand, they want health care professionals to respond to them with compassion and empathy when they reveal their needs and emotions (Howick et al., 2018; Hutting et al., 2022; Miciak et al., 2022; Trzeciak et al., 2017).

Responding in compassionate and empathetic ways to a person's description of their pain and pain-related disability, or their emotional distress and anxiety, fosters trust in the relationship and can improve the outcomes of treatments that physiotherapists provide (Ferreira et al., 2013; Hall et al., 2010; Howick et al., 2018; Kelley et al., 2014). Just as the content of advice and information therapists provide can reduce people's perceptions of their pain and pain-related disability and have a positive effect on anxieties and condition related cognitions, responding with compassion and empathy when people reveal their emotional and psychological needs can have similar effects (Hutting et al., 2022; Howick et al., 2018; Kelley et al., 2014; Miciak et al., 2022; Miciak et al., 2018; Trzeciak et al., 2017). How therapists respond when people reveal their cultural or socioeconomic needs can also influence their perceptions of their symptoms and prognosis (Brady, Veljanova & Chipchase, 2016; Dorner et al., 2011; Reis et al., 2022).

It appears clear that how therapists respond when patients reveal the emotional or psychosociocultural factors that are contributing to or result from the patient's symptoms, plays an important role in therapeutic relationships, and potentially, the outcomes of physiotherapy care. When therapists ignore their patients' emotions and psychosociocultural needs, patients are less satisfied with the care they receive, and less likely to have confidence in their therapist or, to follow their advice and recommendations (Ferreira et al., 2013; Hush et al., 2011; Kleiner et al., 2023a; Leiner et al., 2023b; Kinney et al., 2020; Miciak et al., 2022; Miciak et al., 2018). Relationships with patients and treatment outcomes are better when therapists respond with compassion and empathy (Howick et al., 2018; Kelley et al., 2014; Kleiner et al., 2023a; Kleiner et al., 2023b; Miciak et al., 2018; Trzeciak et al., 2017). As Hutting et al. (2022) explained recently, implementing a person-centered approach in physiotherapy practice requires a therapeutic alliance. One-way physiotherapists can improve their therapeutic alliances is by responding with compassion and empathy (Hutting et al., 2022; Miciak et al., 2019; Trzeciak et al., 2017). Therapists also benefit when they respond with compassion and empathy. Observations in recent studies suggest that physiotherapists experience less anxiety, compassion fatigue, healthcare provider work-related stress, and burnout when they respond with compassion and empathy (Kleiner et al., 2023a; Kleiner et al., 2023b; Sinclair et al., 2017). This promotes compassion satisfaction in physiotherapists, improves their history taking practices and diagnostic accuracy, and increases commitment to helping patients (Trzeciak et al., 2017).

Responding with compassion and empathy is not the only way that physiotherapists can improve their therapeutic relationships. For instance, the therapists in my study believed that in some situations, it was important to develop personal connections with patients by sharing information about themselves to establish the relationship. This resonates with Hutting et al.'s (2022) suggestion that physiotherapists can also improve their therapeutic relationships by developing meaningful connections with their patients. Meaningful connections reduce relationship tensions by creating a relational context within which feels feel free to share their narrative free from judgment, and where their perspectives and needs and concerns are acknowledged and validated (Buchman et al., 2017; Hutting et al., 2022; McCabe et al., 2021; Miciak et al., 2019; Miciak et al., 2020; Zulman et al., 2020). Without these types of connections, patients may not trust their therapist or feel safe to reveal the sensitive psychological, emotional, or sociocultural dimensions that contribute to or arise from their symptom experiences (Hutting et al., 2022; Miciak et al., 2018; Zulman et al., 2020). These types of connections can be developed through professional and personal acknowledgements (Hutting et al., 2022). Hutting et al. and others (Bergum et al., 2006) suggest that this may require physiotherapists, in some contexts, to intentionally share personal information about themselves to develop connections with their patients.

Not all physiotherapists will be comfortable responding with compassion and empathy when patients reveal their emotional or psychosociocultural needs or sharing personal information about themselves to develop meaningful connections. Accepting responsibility to respond when the interconnectedness of the bio-psychosociocultural dimensions of the patient's condition is revealed, and developing meaningful connections, may threaten entrenched beliefs about professional identity, and challenge therapist understandings of their professional boundaries with patients (Bergum et al., 2006; Cowell et al., 2018; Mescouto et al., 2023). Although there are many nuances and complexities to ethical boundaries in physiotherapy practice, therapists often consider that allowing patients to express their psychological or emotional needs or sharing information about themselves to develop personal connections with patients is outside scope of practice and ethical boundaries (Bergum et al., 2006; Cowell et al., 2018; Austin et al., 2006; Mescouto et al., 2023; Synott et al., 2015). Sharing personal information and developing deeper connections with patients is also a source of emotional labour that may be outside the scope of the therapist's hermeneutical resources.

Demonstrating empathy and compassion, and building therapeutic relationships by forming meaningful connections, is not about ignoring traditional limits on scope of practice or ethical responsibilities. It is about recognising that interpersonal connectedness is at the heart of person-centered communication, and patient-therapist interactions should take place within a relationship context based on a meaningful connection where patients feel safe and supported to reveal the sensitive psychological, emotional, or sociocultural dimensions that are contributing to their condition experience (Bergum et al., 2006; Mescouto et al., 2023; Stillwell & Harman, 2019; Wilson et al., 2022). This may be of particular importance in the New Zealand health setting where physiotherapists interact with patients who are Māori or Pacific. For Māori, interactions with health care professionals are meaningful when they are reciprocal and there are personal connections (Wilson et al., 2022). Personal connections (hononga) are the foundation of the interaction, and this relational layer reflects the importance to Māori of whānau identity, collectivism, being valued, known, and interactively spoken with (Wilson et al., 2022).

The relationship context between patients and therapists should enable therapists to successfully navigate their insecurities without resorting to approaches that compromise the person-centeredness of their care. Stated another way, physiotherapists do not need to step outside the boundaries of their professional training and qualifications and attempt to manage people's psychological and sociocultural needs. Although it is acknowledged that this is a source of emotional labour, and that many therapists may need to develop the hermeneutical resources that support such practices, all physiotherapists have a responsibility to build meaningful connections with their patients, and respond with empathy and compassion when patients reveal their emotions and psychosociocultural needs.

Summary

The purpose of my discussion was to critically reflect on my findings in the context of existing theory and research that has previously explored influences on patient-therapist interactions, and barriers to supporting people with back pain from a bio-psychosociocultural perspective in physiotherapy practice. My findings revealed patient-therapist interactions take place within a more complex relational context than was previously shown. Within this context, influences are interdependent and emerge out of the complexities of relationship dynamics that arise when patients and therapists, with their own unique personal and psychosociocultural characteristics, and beliefs and care preferences, interact within the context of a condition characterised by diagnostic and other uncertainties. They also reveal influences that reflect the bio-psychosociocultural complexities of the condition. Just as the condition is influenced by interconnected bio-psychosociocultural dimensions, interactions are influenced by challenges arising from the biophysical aspects of the condition, perceptions about people's personal characteristics and psychosociocultural context, and tensions that arise from the interpersonal relational aspects of patient-therapist interactions.

These findings extended previous knowledge by highlighting that the interconnected bio-psychosociocultural elements influencing the condition are mirrored by interconnected bio-psychosociocultural influences on patient-therapist interactions. They also revealed that navigating challenging inter-personal relational dynamics arising from influences, and bio-psychosociocultural condition complexities, are sources of professional insecurities, emotional labour, and epistemic injustice in patient-therapist interactions. Together these factors may be barriers to supporting people from a bio-psychosociocultural perspective in physiotherapy practice. Therapist confidence to support people from a person-centered bio-psychosociocultural perspective is eroded by the belief that patient-specific bio-psychosociocultural elements' have a negative influence on patient-therapist relationships, and that they lack the hermeneutical resources needed to manage those aspects. They are also undermined by outdated beliefs about their responsibilities and professional scope of practice. This potentially is a strategy to minimize the emotional labour of the duty of caring that is an integral component of their role as health care professionals. Uncertainties about how to relate to and manage patients with complicated psychosociocultural or emotional needs within a context characterised by diagnostic and other condition uncertainties, are accompanied by professional insecurities, feelings of professional inadequacy, and loss of control. These feelings play an important role in the clinical practices of physiotherapists.

Physiotherapists navigate their uncertainties and insecurities within this context by retreating to the familiarity of biomedical approaches to patient care and adopting practices that ignore people's emotional and psychosociocultural needs. Such practices ignore the interconnectedness of the bio-psychosociocultural dimensions that influence the condition and patient outcomes. Therapist practices that prioritise pseudo-diagnostic physical examination findings, and promote impairment based curative treatment pathways to navigate uncertainties and therapist insecurities do not reflect contemporary understandings of the role responsibilities of physiotherapists. Interpersonal connectedness is the foundation of physiotherapy practice, and physiotherapists have a responsibility to acknowledge uncertainties, respond with compassion and empathy, and establish meaningful connections with their patients. When implemented, such practices may reduce the emotional labour of supporting people with back pain and the epistemic injustices that undermine patient-therapist relationships.

This next chapter discusses how these new insights and understandings can be used to help inform ways to improve interactions between people with back pain and physiotherapists. It also discusses my recommendations for ways to support the implementation of bio-psychosociocultural approaches with people with back pain in physiotherapy practice. The insights and new understandings provided by my research suggest physiotherapists need to be supported to change their practice behaviours, and that to improve interactions and reduce barriers to supporting patients from a bio-psychosociocultural perspective, changes are needed in the content of undergraduate and continuing professional development training. Learning how to navigate influences and professional insecurities and navigate the emotional labour that accompanies patient-therapist interactions, and valuing interpersonal connectedness, could improve interaction experiences for both therapists and their patients, and outcomes for people with back pain seeking physiotherapy support.

Chapter Eight: Clinical Implications

In the previous chapter, I critically reflected on my findings in the context of existing theory and research that has previously explored influences on patient-therapist interactions, and barriers to supporting people with back pain from a bio-psychosociocultural perspective in physiotherapy practice. However, the aim of an Interpretive Description inquiry is to generate new understandings of health care experiences to advance applied health care practice (Thompson-Burdine et al., 2020). Consistent with my obligations when using Interpretive Description, the purpose of this chapter is to draw on my critical reflections to discuss the clinical implications of my findings. This includes critically reflecting on the steps that need to be taken to improve interactions between people with back pain and physiotherapists and recommending ways to reduce barriers to physiotherapists supporting their patients from a bio-psychosociocultural perspective. Learning how to navigate influences and reduce therapist insecurities during patient-therapist interactions could improve interaction experiences for both physiotherapists and their patients, and outcomes for people with back pain who consult with physiotherapists.

This Chapter is presented in five parts. Part One briefly introduces the clinical implications of my findings and outlines the changes recommended. Part Two describes changes needed in individual therapist practices. Part Three discusses recommended changes to entry level and continuing professional development training. Part Four makes recommendations for encouraging physiotherapists to engage in communities of practice to support their professional practice. Part Five briefly outlines the challenges of making these changes in the context of potential health system barriers.

Part One: Introduction

Overcoming barriers to supporting people with back pain from a bio-psychosociocultural perspective and enacting meaningful changes in the practises of physiotherapists is a complex issue. As my analysis revealed, patient-therapist interactions take place within a complex interpersonal relational context where influences during interactions are interdependent and emerge out of relationship dynamics that arise when patients and therapists, with their own unique personal and psychosociocultural characteristics, and condition beliefs and care preferences, interact within the context of a condition characterised by uncertainties. Influences during patient-therapist interactions within this context are causes of professional insecurities undermining the implementation of bio-psychosociocultural perspectives in physiotherapy practice. To reduce the effects of these insecurities and better prepare therapists to meet the emotional labours inherent in health care interactions, and in turn reduce barriers to physiotherapists supporting their patients from a bio-psychosociocultural perspective, changes are required at many interrelated levels to develop the hermeneutical resources of physiotherapists including the level of the individual therapist, entry level professional training, continuing professional development, and the professional environment of physiotherapy practice.

It is possible to implement change, and over time, changes may lead to sustained and meaningful improvements in patient-therapist interactions and the outcomes of people who seek support from physiotherapists. However, initiatives need to be cohesive and meaningfully aligned with clear pathways for development of improved interaction skills and hermeneutical competencies in physiotherapists, in education, and in the professional environment in which they practice. For potential changes to lead to changes in practice, the health system context in which private physiotherapy operates might also need to be considered. The purpose of the following four parts of the chapter, therefore, is to discuss my recommendations at each level to advance the applied practices of physiotherapists.

Part Two: Changing individual therapist behaviours.

To reduce barriers to therapists supporting people from a bio-psychosociocultural perspective approaches in physiotherapy practice, physiotherapists need to develop their hermeneutical resources to become more comfortable interacting with patients within a complex interpersonal relational context. In this context they are frequently called upon to support patients with incomplete knowledge about the causes of their symptoms or the most effective way to manage them. Rather than ignoring uncertainties or navigating them by relying on practices that undermine bio-psychosociocultural perspectives, therapists need to avoid benevolent manipulation and epistemic injustices by acknowledging and disclosing condition uncertainties to patients and making time during interactions to allow patients to explore their narratives using communication strategies they are comfortable with, and acknowledge people's emotions and psychosociocultural dimensions (Buchman et al., 2017; Costa et al., 2023). They must also foster trust and confidence by being open to meaningful connections to enrich their therapeutic relationships (Hutting et al., 2022). Physiotherapists, therefore, need to become more accepting of themselves as not only operators who are experts at analysing movement and identifying dysfunctions, but also as interactors who confidently respond to the diverse emotional and bio-psychosociocultural needs of their individual patients (Jacobs & Silvernail, 2011).

To develop their hermeneutical competencies as interactors, practicing physiotherapists must accept responsibility for developing the specific skills that enable them to manage complex interpersonal relational dynamics, diagnostic and other condition uncertainties, and the emotional and psychosociocultural aspects of their patients' presentations. Improving interactions with patients and supporting their patients from a bio-psychosociocultural perspective requires recognition of the influence of their own insecurities and emotional labour on their practises and their clinical outcomes. This includes developing self-awareness of the effects uncertainties and insecurities have on their practice and embracing broader understanding of their role responsibilities. It also includes resisting a positivist paradigm dominance when working with their patients (Mescouto et al., 2022b). Rather than focusing on physical condition dimensions, they must openly acknowledge the difficulties associated with diagnosing symptom causes and avoid reliance on pseudo-diagnostic biomedical examination findings to navigate their insecurities and emotional reactions to patients. Patient-therapist interactions may be enhanced by discussing the difficulties associated with identifying diagnostic-curative treatment pathways with patients and providing evidence-based information about the psychoneurobiological effects of interventions. When done effectively, it may help develop the hermeneutical resources of their patients so that they are empowered to understand the links between the bio-psychosociocultural dimensions of their condition, and their physiotherapy care.

In patient- therapist interactions, the interactional skills of the therapist may be the most important factor that influences the nature and quality of therapeutic relationships and patient outcomes (Kayes et al., 2015). Physiotherapists, therefore, need to become more effective interactors. They must develop awareness of the symbiotic nature of the patient-therapist interaction and the importance of building the relational skills that are needed to interact with a wide range of people with diverse personal characteristics and psychosociocultural needs. This includes learning how to respond to patients with compassion and empathy and recognising when it is appropriate to share personal information to build meaningful connections and effective therapeutic alliances with their patients. It also means developing their capacity to regularly engage in critical reflection on who they are, and how they interact and communicate with their patients. As Kayes and McPherson (2012) propose:

> "…while what we do is important, aspects of who we are, and how we work with our clients may be crucial…" (Kayes & McPherson, 2012, p1907)

With interpersonal connectedness as the foundation of their practice, physiotherapists, therefore, need to develop the skills needed to reflect on how they communicate and establish connections with their patients. Effective interpersonal communication skills are the cornerstone for positive patient-therapist interactions, and patient satisfaction is determined more by those skills than any other factor (Kayes et al., 2015; Pinto et al., 2012; Stenner, Plamer & Hammond, 2018). Therapists must learn to reflect on the content of their advice and explanations, how they communicate diagnostic uncertainties, and how they offer support and encouragement. They must also ask themselves whether they ask their patients for their opinions on the causes of their symptoms, and whether they use language that demonstrates reciprocity and partnership during their interactions. They must also reflect on how they establish their therapeutic relationships, including whether they are comfortable sharing personal information when the context requires, or resort to benevolent manipulation to change their patients' preferences and expectations.

Physiotherapists similarly need to reflect on their non-verbal aspects of their communication including how their physical postures and gestures, facial expressions, and physical contact may be perceived by patients. These are essential elements of integrated communication from which patients make inferences about whether their therapist is engaged, supportive, and trustworthy (Pinto et al., 2012; O'Keefe et al., 2016). Useful insights into the effects their non-verbal communications have on their patients can be gained by reflecting on their patient's verbal and physical responses. Reflecting on these and other aspects of interpersonal communications during patient-therapist interactions could offer important guidance on areas individual therapists can develop their competencies. Developing these specific skills could reduce interaction tensions and insecurities arising from interpersonal relational dynamics.

Physiotherapists must also develop self-awareness of their emotional and behavioral responses when patients reveal their emotional and psychosociocultural needs. Through developing self-awareness of how patients make them feel and the emotional labour of caring, physiotherapists may be better placed to recognise how their own insecurities and emotional reactions influence the relationship, the patient's emotional and psychological behaviours, and potentially, the outcome of their care. All consultations take place within a context where complex interpersonal relationship dynamics compete with the demands to manage people's personal and psychosociocultural characteristics. Physiotherapists working in this context, therefore, need to be aware of their emotional reactions to patients, and the role those responses play during their interactions.

Successful interactions require more than identifying emotional or psychosociocultural influences. They require authentic compassionate and empathetic responses to people's psychological and emotional needs (Hutting et al., 2022; Miciak et al., 2019; Trzeciak et al., 2017). As Costa et al. (2022) explained, when working with people who have back pain:

> "… Good care is context specific and requires clinicians to navigate uncertainty with curiosity … explore their feelings… disentangle practicalities patients may have to deal with in their lives … and offer emotional support when needed …" (p8)

These are aspects of interacting, not operating. Acknowledging people's emotional and psychosociocultural needs are aligned with supporting people from a bio-psychosociocultural perspective. They are also likely to reduce the anxieties, job stress, frustrations, and disillusionment that many physiotherapists experience in their daily practice.

Finally, individual therapists must also begin to reflect on the significant role that diagnostic and other condition uncertainties play in their practice and take the time to address them with patients.

Interactions with people with back pain are almost always accompanied by diagnostic and treatment uncertainties. Successfully navigating interaction tensions arising from those uncertainties means recognising their presence and attending to them with patients (Costa et al., 2023; Costa et al., 2022). It also means reflecting on and acknowledging the ways they navigate the professional insecurities that arise from these aspects of their interactions. For instance, following encounters with patients who they perceive as having complex emotional or bio-psychosociocultural needs, physiotherapists should reflect on how they managed relationship tensions and how their own beliefs and insecurities may have influenced the approach they took with their patient. This includes reflecting on whether they focused on the physical dimensions of the patient's presentation or gave patients the treatment they expected to navigate their own personal feelings. As has been stated many times, supporting people with back pain is almost always accompanied by uncertainties and ambiguities, and that caring takes place within an emotional context. Being comfortable interacting with patients within this complex context may be a prerequisite for successfully supporting people with back pain in physiotherapy practice.

Part Three: Recommendations for entry level professional training and continuing professional development

To reduce barriers to supporting people from a bio-psychosociocultural perspective and improve patient-therapist interactions, entry level and continuing professional development training courses need to offer undergraduate students, and practicing physiotherapists, opportunities to develop a broader range of hermeneutical resources and competencies to help them navigate the complexities within which patient-therapist interactions take place. It may be that meaningful changes in physiotherapy practice cannot take place until a broader range of skills and understandings of professional role responsibilities have been prioritised in entry-level professional training, and future generations of physiotherapists graduate understanding that interactional skills are of equal or possibly more importance than operational skills in the practice of physiotherapy. Teaching broader understandings of role responsibilities and equipping future therapists with the interactional skills needed to practice physiotherapy, therefore, should be a priority in entry level professional training. Those skills can then be consolidated by ensuring continuing professional development opportunities are available to assist practicing therapists to continue to develop their proficiencies in these areas.

Entry level professional training

Traditionally, entry level physiotherapy training has emphasised positivist paradigm biomedical perspectives and prioritised teaching the assessment, diagnosis, and treatment of musculoskeletal conditions, including back pain, from this perspective (Nicholls et al., 2016; Tome et al., 2022). However, to reduce barriers to supporting people from a bio-psychosociocultural perspective in physiotherapy practice and develop the competencies needed to navigate the complexities within which patient-therapist interactions take place, entry level professional training needs to teach undergraduate physiotherapy students a broader range of hermeneutical skills. The content of undergraduate professional training needs to evolve alongside contemporary understandings of the role that physiotherapists play when supporting their patients. Students must be trained to navigate the challenges presented by interpersonal relationship dynamics, and taught the skills needed to support people from a bio-psychosociocultural perspective. Any changes in undergraduate physiotherapy education must also be supported by the experiences clinical educators provide for students on clinical placements.

Entry level professional training should include teaching students' interpersonal relational skills and introducing them to motivational interviewing techniques that empower them with the skills that are needed to promote behavioural change. It should also teach them how to navigate diagnostic and condition uncertainties, manage patient expectations, and share control of decision-making in therapeutic relationships. These areas should be incorporated into the undergraduate curriculum alongside or together with teaching students how to identify evidence-based physical impairments that contribute to the condition. Foster and Delitto (2011) explained, finding the space to incorporate these within the undergraduate curriculum:

> "… may require reduction of time or even elimination of some "sacred cows" within the professional curriculum …[and] … the elimination of content areas that lack supporting evidence should be seen as a way to potentially advance the profession into areas associated with better patient management skills…" (p800)

Undergraduate training should also focus on teaching contemporary understandings of the psychoneurobiological effects of physiotherapy interventions. Evidence-informed understandings of the effects of interventions reflect understandings that the mechanisms of interventions transcend traditional biomedical perspectives that reductions in pain and disability result exclusively from improvements in biomedical pseudo-diagnostic physical impairments. Although it is unclear what contribution specific neurobiological and non-specific psychoneurobiological mechanisms make to treatment outcomes for each patient, future therapists should be taught how to incorporate the understanding that treatments influence bio-psychosociocultural dimensions into their decision-making practices. These changes to entry level professional training are consistent with the guidelines for entry level undergraduate low back pain curriculum content provided recently by an international interdisciplinary working group (Jenkins et al., 2024).

To reduce barriers to bio-psychosociocultural approaches in physiotherapy practice and set the foundation for future physiotherapists to successfully navigate the relationship challenges and insecurities that arise during patient-therapist interactions, entry level professional training must also teach students how to reflect on their practices and develop reflexivity (Costa et al., 2023; Laliberte-Rudman., 2014). Costa et al., (2023) noted, navigating uncertainties in clinical practice involves "… *emotionally reflexive labor* …" (Costa et al., 2023, p792) and requires skills that are often neglected in undergraduate education. Future therapists need to be taught how to embrace and enact what Laliberte-Rudman (2014) describes as an ''*occupational imagination*'' where they learn to reflect on and explore the tensions and emotions that arise during interactions with patients. This includes teaching students how to reflect on their beliefs about the nature of reality or being (ontology), and how they understand the nature of knowledge (epistemology). This would assist them recognize that bio-psychosociocultural approaches require them to conceptualise the biological, psychological, and sociocultural factors as interdependent rather than independent causative factors. As Laliberte-Rudman (2014) explained, it is only through seeing things differently that health care professionals will be able to recognise how to do things differently.

Teaching students how to see things differently and recognising the importance of the humanistic elements of patient care, therefore, requires a shift towards increasing student awareness of constructivist-interpretivist epistemological approaches so that they can blend both objectivist and constructivist-interpretivist philosophies in their practice. Being exposed to a broader range of philosophical perspectives might enable students to enter clinical practice confident in their ability to successfully navigate relationship challenges and uncertainties and support their patients from a bio-psychosociocultural perspective.

However, there could be challenges implementing meaningful changes in entry level professional training. The best ways to teach these skills, and whether teaching these skills will translate to changes in practice behaviours when students graduate, is unclear (Christe et al., 2021b; Kayes & Papadimitriou, 2023; Leahy et al., 2019). Given that some of the skills I have suggested therapists need to enable them to improve their relational practices, and support their patients emotional or bio-psychosociocultural dimensions, relate to what Mescouto et al. (2023) described as “*interdisciplinary within”* understanding of professional role responsibilities, it may be beneficial to include them as part of interdisciplinary education where students learn how to navigate relational dynamics and manage psychosociocultural dimensions from health care professionals who have more expertise in these areas of practice than physiotherapists. Not only would this assist future therapists to explore the boundaries of their scope of practice, but it would also help them to learn the value of working collaboratively alongside other allied health care professionals involved in a person’s care.

A diverse range of pedagogical practices could also be adopted to teach students these types of skills. Drawing from the recommendations of Girish and Amaravadi (2022), and others (Moulder, Harris & Santosh, 2023; Santosh, Chou & Conner, 2019; Tome et al., 2022; Verheyden et al., 2011), those practices could include reviewing academic literature, exploring video clips of patient-therapist interactions, developing reflective questioning skills, and guiding student reflections on their interactions with patients during clinical placements. To be effective, teaching strategies might also need to focus less on recalling information, and more on how to apply reasoned approaches to personalising communications with patients, promoting behavioural changes, and establishing meaningful connections when the context requires (Girish & Amaravadi, 2022; Verheyden et al. (2011), Tome et al., 2022; Santosh et al., 2019). Where students are likely to work in ethnically diverse and culturally plural societies after they graduate, they will also need opportunities to practice these skills in these types of settings (Yoshikawa et al., 2020).

For changes to the undergraduate curriculum to lead to successful changes in the skills of graduating physiotherapy students, student clinical placement experiences will need to reinforce these new skills. Currently, there are many barriers that undermine the translation of skills in taught in undergraduate health care education into applied health care practice (Christe et al., 2021b; Darlow, Stotter & McKinlay, 2024; Kayes & Papadimitriou, 2023; Leahy et al., 2019). For example, there is currently a lack of cohesion between the content of the undergraduate curriculum and the practices that students observe during their clinical placements (Olsen et al., 2014; Olsen et al., 2013). This is an important barrier to students consolidating skills that have been prioritised in their academic entry-level training. As highly respected role models, students lean heavily on clinical educators for guidance and support, and educators will in turn influence student understandings of the relative importance of interpersonal relational aspects during interactions, psychosociocultural factors, and understandings of scope of practice (Olsen et al., 2014; Olsen et al., 2013). Based on the findings of my research, clinical educators working in other private physiotherapy practices in New Zealand may be experiencing the same insecurities and adopting the same strategies to navigate these challenges as the physiotherapists who were involved in my study. As such it is unclear whether these clinical educators are appropriate role models for students.

Physiotherapy students need to observe their educators successfully navigating complex relational challenges by building meaningful connections, involving patients in the decision-making about their care, and successfully managing patient care preferences and expectations. They also need to observe educators supporting their patients emotional and psychosociocultural needs and communicating and navigating diagnostic and other condition uncertainties during their interactions. Failure to observe educators enacting these skills could, in turn, limit the future development of physiotherapy students when they graduate and commence practicing in other health settings. Practical solutions to this challenge include promoting interdisciplinary clinics within undergraduate training institutions where academic staff are required to also be practicing physiotherapists with a dual responsibility that includes supervising students during their clinical placements. Another solution could be to employ clinical educators as tutors or teaching assistants in undergraduate training programmes so that they can also continue to develop their own practices and have a greater awareness of the content of contemporary undergraduate professional training.

Continuing professional development training

Just as changes are needed in the content of entry level professional training, postgraduate continuing professional development training also needs to offer practicing physiotherapists opportunities to continue to develop a broader range of hermeneutical skills and competencies that help them to navigate the challenges of contemporary physiotherapy practice. Although the competency to manage patients with complex psychosociocultural needs is likely to require intensive additional postgraduate or specialised interdisciplinary training, continuing professional development training opportunities need to be available to help practicing therapists develop the resources that enable them to navigate interpersonal relationship dynamics and manage common psychosociocultural obstacles that influence their patients’ presentations and prognosis.

Interdisciplinary allied health professionals could again be called upon to teach physiotherapists interpersonal communication skills, motivational interviewing techniques to promote behavioural change, and how to improve their management of patient expectations and share control of the decision-making in their relationships. Similarly, to become more comfortable acknowledging and exploring diagnostic and other condition uncertainties with patients, practicing therapists need to be taught how to recognise and navigate their professional insecurities, and patient emotions, during patient-therapist interactions (Forbes & Toloui-Wallace, 2022). This could include teaching therapists how to adjust their language, disclose risks, and share power within their relationships to reduce the influence of uncertainties on themselves and their patients (Costa et al., 2023; Forbes & Toloui-Wallace, 2022).

As in the changes suggested in undergraduate training, this type of training should be promoted alongside and integrated into continuing professional development courses that continue to teach traditional biomedical ways of practising. Many physiotherapists in New Zealand prioritise the development of their operational skills and knowledge of how to manage conditions rather than seeking to improve their interactional or interpersonal skills (Williams, 2018). It is therefore arguable that opportunities to develop competencies in areas that are considered "soft skills" may need to be prioritised both independently and within established continuing professional development pathways so that their interconnected importance with operational skills is reinforced to the profession (Bright et al., 2018; Clancy et al., 2024). The content of this type of training should, again, include teaching therapists how to reflect on the tensions and emotions that arise during their interactions, and how to recognise and deal with uncertainties, professional insecurities, and the emotional labour of their work so that they avoid practices that lead to epistemic injustices. For example, although the Balint group training method has not gained traction within the physiotherapy profession since attempts to introduce it 20-years ago (Dahlgren, Almquist & Krook, 2006), training of this nature could be offered to practicing therapists. Balint group training is designed to enhance understandings of relationship and communications between health care professionals and their patients by having therapists meet in small groups with a skilled facilitator on a regular basis to discuss their experiences with patients (Dahlgren et al., 2006).

As in undergraduate training, continuing professional development training should also provide opportunities that encourage therapists to reflect on how their beliefs, behaviours, insecurities, and emotional toil of their work as a health care professional influences their interactions with patients. This includes exploring the nature of reality or being, and how they understand the nature of knowledge. As suggested earlier, many therapists currently in practice received their entry level professional training during a period when the objectivist philosophical framework and the biomedical paradigm served as the foundation for physiotherapy education, and research into physiotherapy theory and practice (Nicholls et al., 2016; Tome et al., 2022). It is, therefore, not surprising that biomedical modes of practice have become entrenched in their practises. Those physiotherapists would therefore benefit from opportunities to learn more about interpretivist-constructivist epistemology.

Just as there are challenges to implementing meaningful changes in entry level professional training, enacting meaningful changes in the practices of therapists is also a complex issue. It is likely to require more than just making continuing professional development opportunities available. In a recent systematic review and meta synthesis of studies exploring the experiences of physiotherapists participating in training courses designed to improve the implementation of bio-psychosociocultural approaches in physiotherapy practice, Holopainen et al., (2020) observed that although therapists report positive benefits, the knowledge and skills they learned did not always translate into changes to their clinical practices. Therapists who participate in these types of courses report: a) increased confidence in their ability to manage their patient's psychosociocultural needs; b) changed beliefs about the importance of implementing flexible person-centered approaches to patient care; and c) improved understandings of the importance of communication skills to relationships and patient outcomes (Holopainen et al., 2020). However, despite these benefits, they continue to experience insecurities and do not feel confident to support their patient's psychosociocultural needs. The persistence of their insecurities appears to relate to the belief that even after additional professional training, they are not adequately prepared to manage the "*pandora's box*" of difficult issues that exploring their patient's psychosociocultural needs will open (Holopainen et al., 2020). These types of concerns continue to reinforce their pre-existing beliefs about their scope of practice and the appropriateness of extending their role responsibilities to include supporting their patient's psychosociocultural needs .

To overcome these challenges, those offering continuing professional development courses need to be mindful of these findings. To ensure skills and knowledge physiotherapists learn on continuing professional development courses translate into meaningful changes in their long term-practice behaviours, they need ongoing support to navigate challenges they experience attempting to integrate what they learnt into their practice. Communities of support like those offered by Balint group training must be made available following participation in any continuing professional development course, and engagement with that support should be mandated as part of the requirements for receiving evidence of their participation in continuing professional development training.

Part Four: Recommendations for support in physiotherapy practice - communities of practice

I suggested earlier that to overcome interaction challenges and barriers to supporting people from a bio-psychosociocultural perspective, physiotherapists need to become more accepting of themselves as not only operators, but also as interactors who are confident practicing from an interdisciplinary-within perspective. Perhaps this requires more than Laliberte-Rudman's (2014) occupational imagination. I suggest it requires occupational reimagination. Occupational reimagination requires reflexivity and physiotherapists must develop self-awareness of the effects that uncertainties, insecurities, and emotional labours have on their practices. This includes recognizing that interpersonal connectedness is at the heart of their professional practice, and that as health care professionals, they must possess the hermeneutical resources that enable them to respond and care for people who complex condition affected cognitive, emotional, and psychosociocultural needs. This requires reflexivity and the development of new hermeneutical skills to enhance their practices. Unless these changes occur, relationship tensions and barriers to supporting people from a bio-psychosociocultural perspective will remain.

There are, however, many barriers preventing physiotherapists from acting on suggestions to change their practises. It can be difficult for example to adopt new ways of practicing when existing paternalistic app[roaches to practice have been accepted by their patients and successful (Holopainen et al., 2020). Practicing therapists may be reluctant to change their practises if they believe changes are unlikely to improve their outcomes, or not financially viable because they are unlikely to be accepted by their patients (Ferguson, 2023; Holopainen et al., 2020). Financial imperatives such as the drive for increased productivity and cost effectiveness and providing patients with the care they expect when they are paying for it, often dictates therapist practices (Ferguson, 2023). There is a financial incentive to maintaining relationships so that patients return for further treatment. It could also be difficult to change physiotherapist approaches if new ways of practicing are at odds with the practices that are commonly in use in their place of employment (Holopainen et al., 2020). Physiotherapists often rely on their colleagues for validation of their practises, and new skills are only integrated if they are compatible with the practises of their colleagues (Holopainen et al., 2020). Regardless of whether continuing professional development opportunities are made available, enacting meaningful changes in practicing physiotherapists is also a complex issue.

One way to address these challenges is to require practicing physiotherapists to engage in supported practice like the communities of practice concept described by Swaithes et al., (2023) to help them expand their hermeneutical resources. The absence of support from colleagues or other health care professionals is an issue of concern to many physiotherapists working in private practice in New Zealand (Darlow, Stotter & McKinlay, 2024). Calls have previously been made for all therapists to participate in professional supervision (Butler & Thornley, 2014), and Physiotherapy New Zealand has endorsed this recommendation (Physiotherapy New Zealand, 2012). Physiotherapists working in private practice, however, appear reluctant to engage with individualised professional supervision (Holder, Windross & Kayes, 2020). Engagement with professional supervision is influenced by a complex set of interacting factors, including therapist perceptions about the perceived value of the supervision within an organisational environment characterised by financial imperatives, and the threat of supervision to notions of professional identity and expertise (Holder, Windross & Kayes, 2020). These challenges and perceptions could be overcome if the supervision was framed as mandated engagement with a multidisciplinary community of practice that offers practicing therapists the support they have identified they need.

Within the context of a community of support that includes health care professionals with skills in other areas of health care practice, therapists could be provided with opportunities for reflexivity and personal growth like the training they would receive if they participated in Balint group training (Dahlgren et al., 2006; Holder et al., 2020; Swaithes et al., 2023). It also provides the opportunity for practicing therapists to reflect on their practice challenges and assist them to develop the interpersonal relational skills that are required to meet the complexities they encounter in their daily practice (Holder et al., 2020). The benefits to practicing physiotherapists from participating in a community of practice were explored by McCreesh, Larkin and Lewis (2016). These authors observed that practicing therapists who recognize the need for peer support in their practice benefit believed they benefitted in many ways from engaging with a community of support. Those benefits included: a) increased personal growth and development; b) increased knowledge of evidence-based practice and the availability of resources; and c) increased confidence in their practice. In this study, the community of practice included other practicing physiotherapists. It is possible that a community of practice that involves health care professionals with the appropriate background to assist practicing physiotherapists to develop their reflexivity and interpersonal communication skills will offer greater opportunities for therapists to develop the skills needed to enhance their interactions and navigate the uncertainties and insecurities that accompany the practice of physiotherapy. Communities of practice could lead to improvements in clinical outcomes for patients and decrease the disillusionment and frustrations many physiotherapists experience supporting people with back pain.

Practicing therapists, therefore, should be required to regularly engage with a multidisciplinary community of practice to discuss and invite feedback on ways to develop their clinical practice. The community must involve interdisciplinary allied health professionals who have expertise to help physiotherapists develop their interpersonal relationship skills and enact approaches to patient care that have communication, therapeutic alliance, and person-centred care at their core. To ensure all practicing therapists have this opportunity, it is my final recommendation that a system of professional support, like professional supervision or participation in a community of practice, should be mandated as part of the competency requirements to practice physiotherapy contained within the New Zealand Physiotherapy Board's (2018) Physiotherapy Standards Framework.

Part Five: Addressing health system barriers.

Enacting meaningful changes in physiotherapy practice requires more than changing the content of the undergraduate curriculum and increasing professional development opportunities, mandating professional supervision or participation in communities of practice, and recommending individual therapists change their practices. For physiotherapists to engage in transformative occupational reimagination and become more accepting of themselves as interactors who confidently practice from an interdisciplinary-within perspective, health system barriers also need to be addressed. Although participants in my study spoke positively about the influence of the ACC Scheme in New Zealand and my analysis did not find ACC to be an important influence on their practice, research in other health settings has observed that the way the health system is organised, including health system operational policies and procedures, criteria for rehabilitation and compensation from third party insurance providers, and contractual arrangements between rehabilitation funders and providers, are important influences on health care practice (Ferguson et al., 2023; Ng et al., 2021). This includes whether bio-psychosociocultural perspectives are adopted when supporting people with back pain in physiotherapy practice (Driver, et al., 2020; Gervais-Hupé, et al., 2023; Ng et al., 2021). Unless health system barriers are addressed, other changes will be ineffectual at changing physiotherapy practice.

Many physiotherapists working in private practice in New Zealand, including the participants in my study, work alone or in small practices (Darlow et al., 2024). As noted in my Introduction (Chapter One), in this health setting, ACC is an important source of income for these therapists (Nicholls, et al., 2005; Nicholls, et al., 2009; Reid & Larmer, 2007; Stewart & Haswell, 2007). Their practises, therefore, are likely to be influenced by the operational policies and procedures of the ACC Scheme, and nature of the contractual arrangements ACC has with private physiotherapy providers. The desirability for patients of obtaining ACC cover to fund rehabilitation and access earnings related compensation, and the financial benefits to physiotherapists, could play an important role during consultations, irrespective of the desire to practice from an evidence-informed perspective. ACC Cover prerequisites that focus on physical injuries and accident causation strongly reinforce and reward therapists for diagnostic approaches that rely on pseudo-diagnostic physical impairments and encourage therapists to promote diagnostic-curative treatment pathways. Together, these prerequisites strongly support the management of back pain from a biomedical perspective. Such prerequisites are not compatible with contemporary understandings of the bio-psychosociocultural dimensions that influence the condition or the psychoneurobiological effects of physiotherapy interventions. Together, these factors are likely to be barriers to physiotherapists changing their practices. As suggested earlier, physiotherapists must learn to resist the dominance of the biomedical paradigm when supporting people with back pain to manage their condition.

For physiotherapists to engage in transformative occupational reimagination and transition away from practices that position them as operators, ACC's statutory imperatives and operational policies and procedures, need to evolve to recognise evidence-informed understandings of the condition, and contemporary interdisciplinary-within physiotherapy practises. Changes to the Scheme's imperatives should include reducing reliance on cover pre-requisites that require physiotherapists to identify a physical diagnosis and pseudo-diagnostic physical impairments. They should also include reducing requirements to prescribe diagnostic-curative treatment pathways, and the use of objective positivist paradigm outcome measures to monitor changes in physical impairments that lack diagnostic reliability and validity and are poorly correlated with clinical outcomes. Instead, physiotherapists should be tasked to demonstrate in their clinical reasoning how people's conditions are influenced by interconnected bio-psychosociocultural dimensions, and how their planned interventions target psychoneurobiological effects. They should also recognise that therapists who spend time during their consultations responding to and supporting their patients' emotions and psychosociocultural needs are providing treatment.

To support physiotherapists changing their practices, it will also be necessary to address the current contractual arrangements between ACC and private physiotherapy providers. Purchaser-provider fee for services contracts that reward physiotherapists for the number of times they see their patients, and not for the quality of their care or outcomes, are unlikely to encourage therapists to adopt evidence-informed or bio-psychosociocultural approaches with their patients. Similarly, imposing requirements on the types of intervention's physiotherapists are reimbursed for using is problematic when the ACC Regulations (Accident Compensation (Liability to Pay to Contribute to Cost of Treatment Regulations) 2003; Section 6, IPRA 2001; IPRCA 2001 Schedule 1 Clause 2) do not specifically provide reimbursement for evidence-informed bio-psychosociocultural approaches. Addressing this issue could be challenging when there is currently no consensus available to guide physiotherapists (or ACC) on what should be included within a bio-psychosociocultural approach with individual claimants.

Contractual arrangements that rely on payment structures characterised by global capitation should also be reconsidered. As was also noted in Chapter One, these types of arrangements reward providers for their efficiency rather than the quality of their care. In return for being awarded the contract, and receiving a global capitation payment for their services, providers operate under the burden of highly demanding output measures, rigorous contract monitoring, onerous reporting requirements, and generally, higher system administration costs. Physiotherapists, therefore, assume a larger portion of the burden associated with aligning their service provision with their patients' expectations, and the boundaries between optimal care, and the operational requirements of the contractual arrangement clash. As Porter and Lee (2013) explained, under these types of contractual arrangements, private health care service provides are required to deliver services beyond the scope of contractual agreements and fee structures. This places a considerable financial and administrative strain on service provides who are required to support people with complex conditions bounded by both funding and time constraints. These types of arrangements,, therefore are also likely to impose barriers to physiotherapists changing their practices. As Ferguson et al. (2023) noted, in today's hyper competitive health care market, financial pressures are often overlooked as a challenge to the implementation of evidence-based approaches in physiotherapy practice.

Chapter Nine: Strengths, limitations, and opportunities for future research

The objective of this chapter is to critically reflect on the strengths and limitations of my research. The limitations I identify provide useful insights into areas where future research could be directed. This discussion should be read in conjunction with Part Two of Chapter Five, where I reflected on and critically discussed the strengths and limitations of the methods of my research. That discussion included a critical reflection on how credibility and rigour were demonstrated throughout my research processes. This included discussing how my research demonstrates epistemological integrity, the steps I took to ensure representative credibility, and my analytic logic and interpretive authority. Other quality considerations such as the moral defensibility of my inquiry, my pragmatic obligation to present my findings as though they will be applied to practice, and contextual awareness were also discussed.

This further discussion allows the reader to finish reading my thesis with a clear sense of the rigour of my research processes and the credibility of my findings. The Chapter is presented in two parts. Part One discusses limitations. Part two discusses strengths. Strengths are presented after limitations to ensure the reader finishes the chapter with a clear sense of the veracity of my findings.

Part One: Limitations

There are several important limitations influencing what can be learned from my research findings. For instance, I considered that performing research in this health care setting may have been of particular importance because of the influential role ACC plays in the New Zealand private physiotherapy practice setting. The Scheme's statutory imperatives, operational policies and procedures, and contractual arrangements between ACC and private physiotherapy providers, may have been an important influence on the clinical practises of the physiotherapists. The desirability of obtaining ACC cover to access compensation or rehabilitation services for both therapists and their patients, could have been an important factor influencing patient-therapist interactions in my study. However, participants spoke positively about the influence of ACC and did not consider it to be an important influence. Further research is needed to explore whether ACC and the operational requirements of the Scheme, and contractual arrangements between ACC and private physiotherapy providers, influence patient-therapist interactions and the approaches physiotherapists use when supporting their patients. This research could provide insights into whether those operational procedures and contractual arrangements are barriers to physiotherapists engaging in the transformative occupational reimagination recommended. It could also help to identify potential areas for health system reform that support the implementation of person-centred bio-psychosociocultural approaches in physiotherapy practice.

My inquiry also focused on the perspectives of physiotherapists. Unsurprisingly, their perspectives tended to focus on influences relating to their patients. Although this might have been expected, patient perceptions of influences on interactions with physiotherapists would also be helpful to provide a more balanced and comprehensive overview of influences on interactions. Although I originally hoped to explore both therapist and patient perspectives, as my research journey progressed the time constraints and other challenges I encountered prevented me from continuing with that plan. Patient perspectives might be particularly insightful with regard to potential influence of the personal characteristics or psychosociocultural context of their therapist, their perceptions of the therapist's treatment preferences and expectations, and the influence of strategies therapists use to engage patients in therapeutic relationships and physiotherapy, during patient-therapist interactions. It might also reveal important insights into the influence that the practices therapists rely on to navigate relationship tensions, and diagnostic and other condition uncertainties, have on patients. Future research should therefore explore patient perspectives. Comparisons of therapist and patient perceptions are likely to offer better understandings of ways that physiotherapists can improve their interactions with people with back pain and reducing barriers to supporting people from a bio-psychosociocultural perspective in physiotherapy practice.

As discussed in Chapter Five, there were also limitations associated with the number of therapists included in my sample, and methods of recruitment. Eight physiotherapists were interviewed and in the context of qualitative research, if the study sample size is not adequate, the credibility of the findings is at risk (Sandelowski, 1995). The therapists I recruited all worked in private practice in the Auckland region, and there is a possibility of response bias where only the perspectives of physiotherapists who were interested in back pain, and regularly reflected on their practice, participated in my study. My sampling procedures also relied on my own knowledge and experience of those likely to be able to provide adequate data when screening potential participants. Therefore, not only was the potential size of my sample limited, and the perspectives they offered influenced by their interests and characteristics, but I may have further limited the diversity of experience in my sample by only including therapists who I perceived shared similar perspectives to my own. Stated another way, my findings may be applicable to therapists working in private practice in this geographical setting, but it is possible that if a larger number of therapists had been sampled, or if other therapists had been selected from this location, they may have offered different insights. Future research could explore these limitations by recruiting other therapists working in the area or exploring the perspectives of therapists working in other sociodemographic locations.

Because my research has taken place in New Zealand, perhaps the most important limitation of my sample was that it did not include any physiotherapists who identified as Māori or Pacific. While the research was not specifically targeting Māori or Pacific perspectives, therapists who identify as Māori and Pacific are likely to be working in the Auckland region, and their perspectives might have contained unique and important cultural perspectives that would have enriched my findings and given them greater cultural relevance. Future research in this and other geographical locations, involving therapists who identify as Māori and Pacific, or who interact with Māori and Pacific patients, would contribute further to understandings of influences on patient-therapist interactions in New Zealand.

Similarly, as also discussed in Chapter Five, there were limitations associated with the way I collected my data. For instance, I carried out semi-structured interviews at the participants' places of work. Interviews were interactive discussions using the questions and prompts I devised before the study commenced. Although semi-structured interviews are by their nature reflexive, the quality and content of data collected in face-to-face interviews are sensitive to researcher-participant interactional dynamics (Thorne, 2016). Just as patient-therapist interactions are influenced by interpersonal relational dynamics and power imbalances, researcher-participant interactions, and the participants recall of their experiences and the perspective they share, can be influenced by these factors (Thorne, 2016). For example, my verbal or non-verbal responses to the reflections participants were sharing could have influenced their responses. Face-to-face interviews might also not be the most effective way to encourage participants to openly share their own perspectives. Participants may be reluctant to share their true perspectives if they are concerned about expressing views that do not conform with evidence-informed understanding of the condition, guideline recommendations, or the views of the researcher. In an Interpretive Description inquiry, the researcher and participants co-construct the findings by influencing one another in the process of the research (Thompson-Burdine et al., 2021). However, future research could be performed by other researchers who possess different experiences and interpersonal interactional skills. Consideration should also be given as to whether interviews should take place at the participants places of work as the views they shared may have been influenced by this environment.

There were also limitations in the way that the participants l perspectives captured in the audio files were transcribed. The professional transcribers were instructed to transcribe without correcting the participants grammar, and were asked to include pauses in speech, false starts, filler words, silences, pauses, and repetitive phrases. My instructions did not include documenting involuntary vocalisations such as coughs, sneezes, laughter. As the interviews were not video-taped, non-verbal aspects of communication such as physical hand gestures and changes in body postures, were not captured. It is unclear from the transcripts whether participants may have used non-verbal or involuntary vocalisation as communication strategies to emphasise elements of the content or to allow them time to think and reframe the information they were providing. Together, these factors may have added emphasis or conveyed a different meaning to their experiences. Similarly, the denaturalism principles that I applied to the quotes in the Findings Chapter (Chapter Six), including removing pauses, false starts, filler words, silences, repetitive phrases, overlapping talk, or non-response tokens, and correcting grammar or adding linking word and commas, may have altered the meaning and perceptions created and shared by the participants during their interviews. The extent to which these limitations influence my findings is unclear, but future research could be performed capturing visual images of the interaction and using different transcription instructions.

Finally, my findings might also be limited by the similarities between my interpretations and my own experiences in clinical practice. For instance, prior to the inquiry commencing, my own reflections revealed that I experienced insecurities when I encountered patients with challenging personalities and complex emotional or psychosociocultural or emotional needs. I was uncertain about how to develop connections with these types of people and my emotional reactions were barriers to relationships in my practice. Similarly, in my experience, patients were more likely to engage when treatment reflected their preferences and expectations. Relationship tensions often arose when there were conflicts between the patient’s and my own expectations for the consultation or conditions beliefs. In my experience, it was also easier to navigate my insecurities in these situations by promoting physical impairments as the basis for their symptoms and using my expertise to provide advice and recommendations that reinforced patient expectations for diagnosis-treatment-curative pathways. These, and other strategies, helped me navigate feelings of professional inadequacy when I encountered challenging interpersonal relational dynamics, or diagnostic and other condition uncertainties.

My own experiences, therefore, closely resemble my interpretations of the participants experiences. My interpretive analysis was also influenced by my skill and experience at applying the

Reflexive Thematic Analysis method. In an Interpretive Description inquiry, the researcher's experiences are valued as a fundamental source of applied practice insight. However, it is possible that when my interpretations were constructed at the intersection of the participants perspectives, my own experiences, and my inexperience at performing an interpretive analysis, that my inexperience and pre-assumptions undermined my analytic logic and interpretive authority. It would be helpful if future research exploring this topic could be performed by researchers who are more experienced at using Reflexive Thematic Analysis, and who have different professional and personal practice experiences, to confirm the veracity of my findings.

Part Two: Strengths

Although there are important limitations undermining my research findings, there also strengths that suggest my findings provide credible new insights into influences on patient-therapist interactions, and barriers to supporting people with back pain from a bio-psychosociocultural perspective in physiotherapy practice. For instance, a key reason I chose Interpretive Description as my methodology was so that my own experiences could be used to help identify patterns among other therapists' experiences. Although there are similarities between my own experiences and my interpretations, my findings are demonstrably grounded in the participants own experiential perspectives. Just as synthesising the findings of the studies included in my literature review converged and suggested a similar meaning, my analysis of the participants' experiences similarly converged and allowed me to construct trustworthy interpretations of their collective experiences. Although interpretations that are based on commonalities among the participants perspectives potentially deprives the reader of a sense of the diversity and complexity of their individual experiences, the convergence of the patterns among the participants experience with my own, strengthens the credibility of my interpretations. These factors support my analytic logic and interpretive authority. It should, again, be reinforced that in an Interpretive Description inquiry, the researcher's experiences are valued as a fundamental source of applied practice insight, and that the researcher and participants co-construct the findings by influencing one another in the process of the research (Thompson-Burdine et al., 2021).

The credibility of my findings is also strengthened by the fact that my interpretations extended previous understandings and did not simply reaffirm existing knowledge. For example, my interpretations revealed that patient-therapist interactions take place within a complex inter-personal relational context where influences are interdependent and emerge in the moment of therapy out of the complexities of relationship dynamics. They also reveal influences reflect the bio-psychosociocultural complexities of the condition, and that difficulties therapist experience navigating these influences are the cause of professional insecurities that undermine bio-psychosociocultural approaches in physiotherapy practice. These interpretations revealed new understandings of influences that were not known before my inquiry commenced.

Similarly, the credibility of my findings is strengthened by my self-reflexivity and other safeguards I embedded into my methods to support my analytic logic and interpretive authority. For instance, I have clearly described the inductive reasoning processes I used to transform the data into interpretive findings in Chapter Five. This includes describing the stages of my Reflexive Thematic Analysis in sufficient detail to allow the reader to assess its dependability for themselves. Using my own knowledge and experiences as part of my interpretive frame of reference risked omitting relevant aspects of the participants perspectives that may have provided contradictory insights. My audit trail, however, allows the reader to evaluate the extent to which my knowledge and experiences influenced the patterns I constructed among the participants experiences. To allow the reader to assess whether my own experiences undermined the veracity of my interpretations, I also participated in a pre-assumption interview and wrote a reflective statement capturing my own beliefs and assumptions before my inquiry commenced. During the process of data collection I also wrote reflective memos after each interview to help me recognise how my own experiences were influencing my interviewing and, potentially, my analysis. During the research my supervisory team also acted as an important reflexive check on my interpretive authority. The audit trail of these processes helps the reader to assess my sincerity and evaluate whether my own biases and experiences undermined my interpretations. However, it is acknowledged that my interpretations may be contradicted in future research if it is carried out by a different researcher who has different knowledge or experiences in practices, and therefore, applies a different interpretive lens when analysing the data.

The representative credibility of my sample is also a strength of my research. Interpretive Description inquiries do not require large numbers of participants and the sample size can be as few as five if the information power of the data the participants provide is high (Malterud et al., 2021; Malterud et al., 2016). The number of participants alone does not determine a sample sizes adequacy (Malterud et al., 2016). Prior to the study commencing, I had anticipated that between 10 and 12 participants would be required to help me answer my inquiry. This estimation was based on previous research exploring the experiences of health care practitioners and people with back pain where density of data was achieved with this number of participants (Darlow et al., 2015). However, purposive sampling allowed me to recruit a sample of eight physiotherapists with diversity on a range of professional and sociocultural characteristics that influence experiential perspectives. Those characteristics included level of professional qualification, age, gender, years in private practice, practice location, and the socio-economic status of the participants patient base. These are all important characteristics that strengthen the representative credibility of my sample and information power of the data they provided (Malterud et al., 2016; Thompson-Burdine, et al., 2020; Thorne, 2016). After these participants had been interviewed, I observed that the information power of the data they had provided was of sufficient strength to allow me to stop recruiting additional participants.

Finally, the audit trail of the steps involved in my data collection is a strength of my research. It allows the reader to assess for themselves the extent to which the quality and content of the data I obtained was influenced by researcher-participant interactional dynamics. For instance, my interview guide and prompts and an example of an interview transcript have been included in my write up to make transparent how my interviewing and the verbal cues I provided may have influenced the perspectives they shared (Table 7 and Appendix 11). It is also important to acknowledge, that in Interpretive Description, although the experiences the participants shared may have been influenced by these interactional effects, interactional effects reflect the methodology's philosophical assumption there is an inseparable interaction between the knower and the known, and the researcher and the participants influence one another during the research (Thorne, 2016). In this way, together they co-produce the findings (Thorne, 2016).

Summary

In summary, I do not claim that my interpretations are the only possible interpretation of the experiences of the physiotherapists I sampled or that the methods of my research and interpretations are not without limitations. Performing an Interpretive Description inquiry for the first time was challenging, and people's experiential perspectives are complex, contextual, and ultimately subjective (Thorne et al., 2004). Given the finite nature of the time that was available to perform my inquiry, and my inexperience at performing a Reflexive Thematic Analysis, I may have marginalised or overlooked key aspects of the participants experiences that could provide better understandings of influences on patient-therapist interactions and barriers to supporting people from a bio-psychosociocultural perspective in physiotherapy practice. As with the findings of all Interpretive Description inquiries, my interpretations constitute only a tentative claim about the truth. However, based on the strengths of my research methods, I believe my findings provide credible new insights and understandings into influences and barriers could help inform ways to improve interactions between people with back pain and physiotherapists. They might also provide helpful insights into the types of strategies that are needed to support the implementation of bio-psychosociocultural approaches in this health context. The recommendations that emerged from my findings offer the possibility of changing therapist practises and improving outcomes for people with back pain who consult with a physiotherapist.

Chapter Ten: Conclusion & Future Directions

Conclusion

The aim of my research was to explore the experiences of physiotherapists supporting people to manage their back pain in private physiotherapy practice to describe perceived influences on patient-therapist interactions that potentially impact their practices. The secondary objective was to provide new insights into barriers to physiotherapists supporting people with back pain from a bio-psychosociocultural perspective in this health setting. I explored this topic because of my own experiences in clinical practice. Despite questions remaining over whether outcomes are superior using bio-psychosociocultural approaches compared to managing patients from a biomedical perspective, bio-psychosociocultural approaches are recommended in clinical practice guidelines and are also a requirement when practising physiotherapy in New Zealand. However, there is limited guidance available advising therapists on how to support people with back from this perspective. By exploring the experiences of other physiotherapists, I hoped that I might provide new insights and understandings into influences during patient-therapist interactions and could help inform ways to improve interaction experiences for people with back pain and physiotherapists. They might also inform strategies to reduce barriers to bio-psychosociocultural approaches in this context. Together, new insights and understandings, and implementing recommendations to change therapist practises could improve outcomes for people with back pain who consult with a physiotherapist. I performed my inquiry using Interpretive Description because my question was derived from the field of applied health practice and my intention was that my findings would lead to changes in the practices of physiotherapists.

My interpretations provided important new insights into the complexity of the context in which many, if not all, interactions between physiotherapists and their patients take place. They highlighted that interconnected influences with bio-psychosociocultural dimensions arise in the moment of therapy out of interaction dynamics that emerge when people, with their unique personal and psychosociocultural characteristics, and beliefs and care preferences, interact within the context of a condition characterised by uncertainties and influenced by bio-psychosociocultural complexities. My themes revealed that interactions are influenced by therapist perceptions about their patient's personal characteristics and psychosociocultural context, the nature of the patient-therapist relationship including the presence of confidence and trust, tensions between the patient-therapist care preferences and expectations, and patient engagement. Together, these influences play a key role during interactions and impact therapist practises. Therapist perceptions about their patient's personal characteristics and psychosociocultural context may be the most influential factor, and facilitating engagement appeared to be the desired outcome of strategies physiotherapists use to navigate tensions during interactions. These findings suggested patient-therapist interactions take place within a more complex interpersonal relational context than was previously known. Within this context, difficulties navigating these complexities leave some physiotherapists, frustrated, and disillusioned with the emotional labours they associate with the practice of physiotherapy.

My interpretations also highlighted important barriers to supporting people with back pain from a bio-psychosociocultural perspective in physiotherapy practice. For some therapists, influences lead to feelings of professional inadequacy and loss of control. Professional insecurities arise from perceptions about people's personal characteristics and bio-psychosociocultural dimensions. They also arise from relationship tensions associated with conflicts between patient-therapist treatment preferences and expectations, and when patients have a strong desire to be involved in the decision-making about their care. Along with the challenges therapists experience navigating diagnostic and other condition uncertainties, difficulties navigating their insecurities while simultaneously navigating bio-psychosociocultural condition complexities, promote paternalistic practices and are barriers to bio-psychosociocultural approaches in physiotherapy practice. Confidence to implement bio-psychosociocultural approaches is also eroded by the belief their patients' personal or bio-psychosociocultural dimensions undermine the relationship and these approaches. Together with beliefs about the adequacies of their hermeneutical resources, and scope of practice that do not reflect contemporary understandings of their professional role responsibilities, insecurities and the emotional labours that arise from influences undermine bio-psychosociocultural approaches in physiotherapy practice.

Together, these insights suggest physiotherapists need to understand that interpersonal connectedness is the foundation of physiotherapy practice. They must accept responsibility for developing a broader range of hermeneutical competencies to enable them to support patients from a bio-psychosociocultural perspective within this complex relational context. In clinical practice, interactions with people with back pain are almost always accompanied by challenging relational dynamics, patient emotions, uncertainties, and professional insecurities. Therapists are frequently called upon to support patients with complex emotional and psychosociocultural needs while having incomplete knowledge about the cause of their condition or the most effective way to manage it. Learning how to build meaningful connections with patients within this context may be the key to navigating these tensions and enriching the relationship to enable more effective patient care. To overcome these challenges physiotherapists need to become more accepting of themselves as not only *operators* who are experts at analysing movement and identifying physical impairments, but also as *interactors* who are confident practicing from an *interdisciplinary-within* perspective. This requires occupational reimagination to embrace a broader conceptualisation of their role, and greater self-awareness of the effects of relational dynamics on their practices. These changes require reflexivity and new skills. Unless physiotherapists develop these skills, interpersonal relational barriers to improving the outcomes of physiotherapy care, and professional insecurities that are barriers to biopsychosocial approaches in physiotherapy practice, will remain.

Future directions

I do not claim my findings are the only possible interpretation of the experiences of the physiotherapists I sampled, or that the influences I identified are the only barriers to supporting people from a bio-psychosociocultural perspective in physiotherapy practice. My findings are only a tentative claim about the truth of the participants' experiences and a contextually specific representation of some of the influences on patient-therapist interactions. Future research is needed in other geographical locations or contexts involving larger numbers of physiotherapists, or groups of physiotherapists who identify as Māori and Pacific or work with Māori and Pacific people or other ethnicities. That work could provide better understandings of cultural perspectives on these questions. Future research might support my findings or offer different perspectives of influences on patient-therapist interactions that are barriers to bio-psychosociocultural approaches. It would also be beneficial to explore patient perspectives. Comparing therapist and patient perspectives might offer better understandings of ways to improve interactions and reduce therapist insecurities. This research could also use other methods of data collection such as direct observation of patient-therapist interactions or focus groups where the group dynamic potentially leads to different types of insights than are shared during individual interviews.

In terms of how we change the practices of physiotherapists, and ensure the next generation have the competencies and skills they need to work within the complexities of the private physiotherapy context, undergraduate professional training and continuing professional development opportunities need to support the need for transformative occupational reimagination. Professional training must include the teaching of interpersonal relational skills and motivational interviewing to promote behavioural change. It must also include guidance on how to engage in reflexive practices, navigate diagnostic and condition uncertainties, manage people's expectations and emotions, and share control of decision-making in therapeutic relationships. Future physiotherapists must also be taught how to incorporate understandings of the psychoneurobiological mechanisms of their interventions into their clinical reasoning and decision-making practices. The development of these skills needs to begin during undergraduate professional training and be aligned with continuing professional development pathways. To support practicing therapists to engage with these transformative practices, professional supervision or participation in communities of practice must also be mandated as part of the requirements to practice. This would ensure practicing therapists receive support to navigate the challenging relational context of private physiotherapy practice. Finally, for occupational reimagination and transformative changes to occur, the statutory imperatives, operational policies and procedures, and contractual arrangements between ACC and private physiotherapy providers, also need to be reconsidered. It should be a priority to improve understandings of how the health system context in which private physiotherapy practitioners operate influences therapist practises and may be a barrier to supporting patients from a bio-psychosociocultural perspective in New Zealand.

Transformative change and occupational reimagination could lead to improvements in interaction experiences for people with back pain who consult with a physiotherapist and increased support of people from a bio-psychosociocultural perspective in physiotherapy practice. Together these changes could improve job satisfaction for physiotherapists and improve the outcomes of physiotherapy care. However, further research will be required to explore whether the changes recommended have the impact intended.

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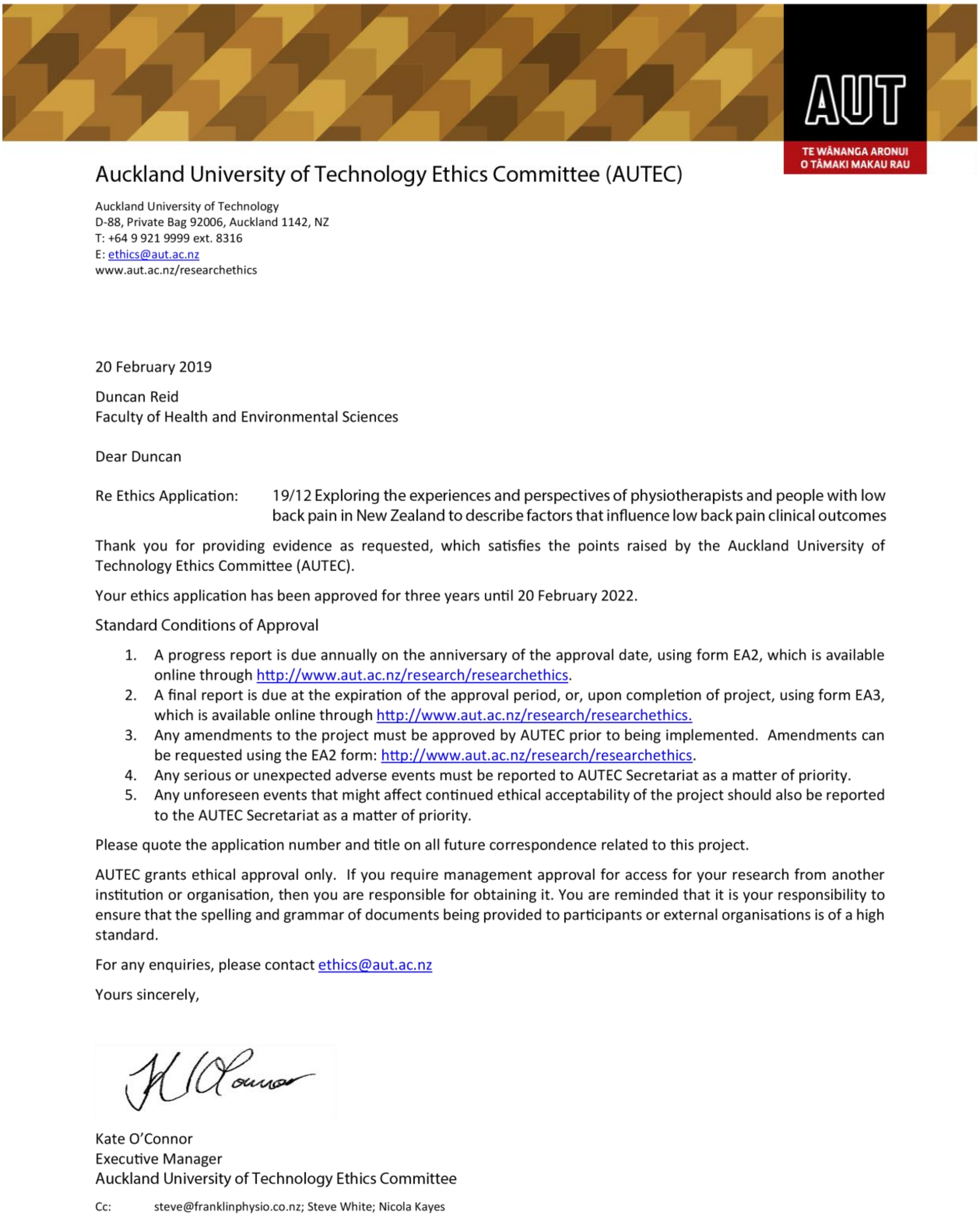
Appendices

Appendix 1: AUT confirmation of ethics approval



AUT
TE WĀNANGA ARONUI
O TĀMAKI MAKAU RAU

Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology
D-88, Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

20 February 2019

Duncan Reid
Faculty of Health and Environmental Sciences

Dear Duncan

Re Ethics Application: 19/12 Exploring the experiences and perspectives of physiotherapists and people with low back pain in New Zealand to describe factors that influence low back pain clinical outcomes

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 20 February 2022.

Standard Conditions of Approval

1. A progress report is due annually on the anniversary of the approval date, using form EA2, which is available online through http://www.aut.ac.nz/research/researchethics.
2. A final report is due at the expiration of the approval period, or, upon completion of project, using form EA3, which is available online through http://www.aut.ac.nz/research/researchethics.
3. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form: http://www.aut.ac.nz/research/researchethics.
4. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
5. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.

Please quote the application number and title on all future correspondence related to this project.

AUTEC grants ethical approval only. If you require management approval for access for your research from another institution or organisation, then you are responsible for obtaining it. You are reminded that it is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard.

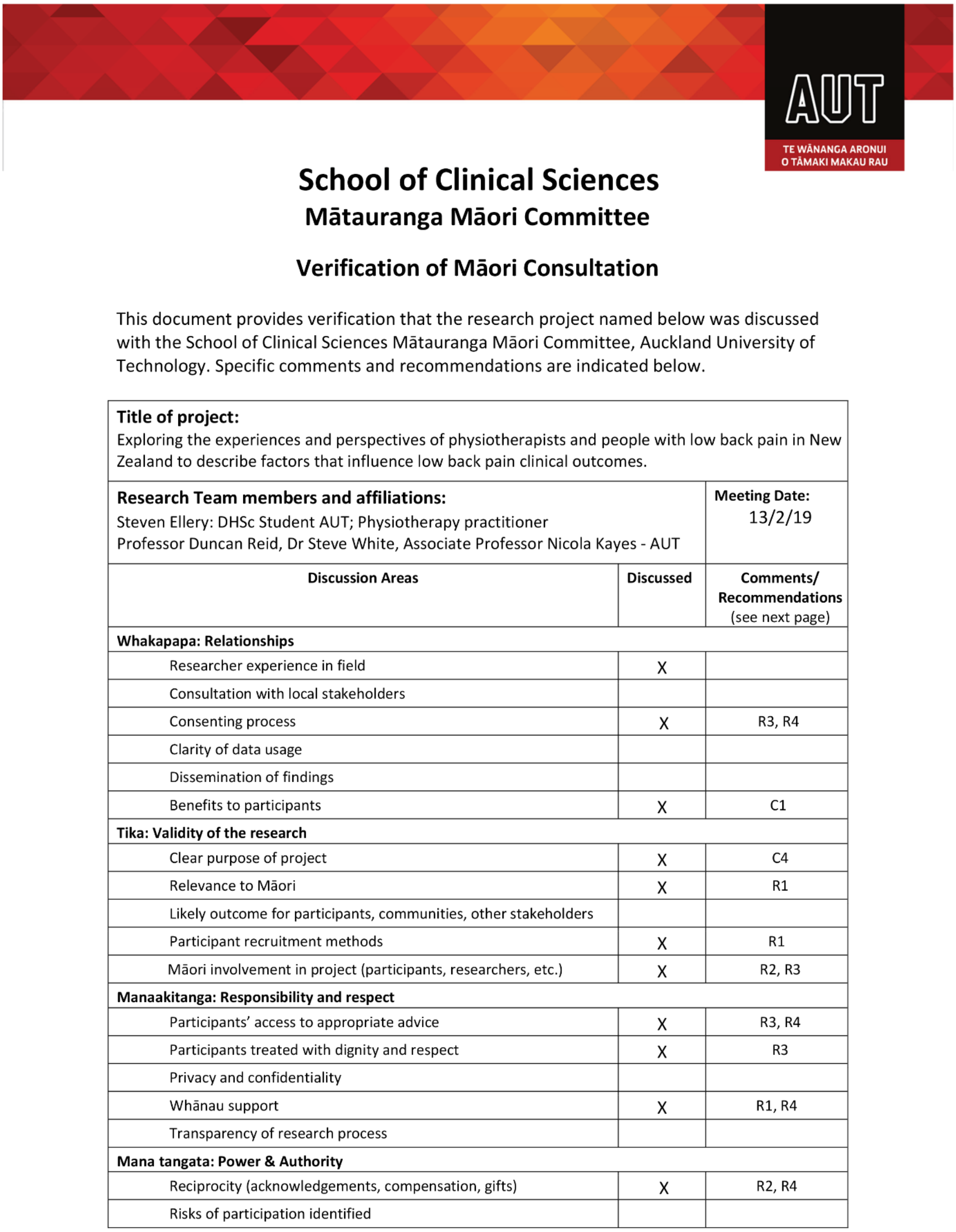
For any enquiries, please contact ethics@aut.ac.nz

Yours sincerely,

Kate O'Connor
Executive Manager
Auckland University of Technology Ethics Committee

Cc: steve@franklinphysio.co.nz; Steve White; Nicola Kayes

Appendix 2: Mātauranga Maori Committee consultation



TE WĀNANGA ARONUI O TĀMAKI MAKAU RAU

School of Clinical Sciences

Mātauranga Māori Committee

Verification of Māori Consultation

This document provides verification that the research project named below was discussed with the School of Clinical Sciences Mātauranga Māori Committee, Auckland University of Technology. Specific comments and recommendations are indicated below.

Title of project:
Exploring the experiences and perspectives of physiotherapists and people with low back pain in New Zealand to describe factors that influence low back pain clinical outcomes.

Research Team members and affiliations:
Steven Ellery: DHSc Student AUT; Physiotherapy practitioner
Professor Duncan Reid, Dr Steve White, Associate Professor Nicola Kayes - AUT

Meeting Date: 13/2/19

Discussion Areas	**Discussed**	**Comments/ Recommendations** (see next page)
Whakapapa: Relationships		
Researcher experience in field	X	
Consultation with local stakeholders		
Consenting process	X	R3, R4
Clarity of data usage		
Dissemination of findings		
Benefits to participants	X	C1
Tika: Validity of the research		
Clear purpose of project	X	C4
Relevance to Māori	X	R1
Likely outcome for participants, communities, other stakeholders		
Participant recruitment methods	X	R1
Māori involvement in project (participants, researchers, etc.)	X	R2, R3
Manaakitanga: Responsibility and respect		
Participants' access to appropriate advice	X	R3, R4
Participants treated with dignity and respect	X	R3
Privacy and confidentiality		
Whānau support	X	R1, R4
Transparency of research process		
Mana tangata: Power & Authority		
Reciprocity (acknowledgements, compensation, gifts)	X	R2, R4
Risks of participation identified		

Ownership of outcomes	X	
Informed consent process		

Comments from applicant/s

1.	Lower back pain is a prevalent problem in New Zealand. A diverse range of interventions are used by physiotherapists in treating lower back pain. Some interventions work with some people and some with other people. The applicant's project will be sampling both physiotherapists and their patients for their experiences with treating and experiencing lower back pain, to see where and how improvements can be achieved in both treatment and practice.
2.	Sampling will be carried out in the Auckland region and is hoping to include a range of ethnicities. There will be 10-12 participants in each group. The applicant acknowledged that he doesn't see many Māori patients in his practice.
3.	A broad range of participant ages and lower back pain conditions will be sought – ideally with half having had their condition less than 3 months and half more than 3 months. Participants will continue to be enrolled there is enough data-rich information from which themes are emerging.
4.	Physiotherapists sampled will likely be both experienced and recently qualified.

Recommendations made by Committee

1.	Possible sources of Māori participants: The applicant has already approached the Kaitiaki of Physiotherapy New Zealand. Physiotherapy Rehabilitation Group was suggested as a very good source of both Māori physiotherapists and Māori patients (Tammi has offered to provide some contacts, including some names of Māori physiotherapists) because their clinics are likely to have a higher proportion of Māori and Pasifika patients than other physiotherapy clinics. This organisation also has significant involvement in sports teams that may have Māori team members, and it has branches in the South Auckland area.
2.	Cultural support for the researcher/s as they undertake their sampling is also recommended. Consider involving a Māori co-interviewer in your project who can also make the introductions, etc. Taking time with Māori participants to introduce yourselves and to explain what the project is about – i.e., building a relationship – is very important. Providing some koha would also be appropriate.
3.	If a non-Māori interviewer has a Māori support person with them, Māori participants will be much more comfortable with the process than if they were interviewed only by a non-Māori researcher. Also, if a Māori support person is present, the quality of the information gathered is likely to be different from what it would be if there was not a Māori support person present. It was suggested that AUT staff member and physiotherapist, Bobbie Jo Wilson, would be a good person

	to approach in this regard. There are also Māori postgraduate students at AUT who may be interested in providing such support.
4.	When the initial telephone call is made, the researcher could ask the participant if they would like a Māori colleague to be involved in the interview process. Some may say 'No', but they will appreciate being asked. When recruiting from groups such as sports teams, it would be a good idea for the researcher's Maori support person to attend with the researcher and be directly involved in explaining the project. This might also apply in some whānau situations. Koha, and/or perhaps kai, would be appropriate.
5.	As well as looking for overall themes, the applicant could keep splitting and re-splitting the transcripts into piles, in order to reveal differences between aspects such as acute and chronic pain, Pākehā and Māori, young and old, etc.
6.	Having the Māori cultural support person involved at the analysis and interpretation stage of the project (and in the debrief session immediately after the participant interview) would be very beneficial in sensitising the researcher to seeing the cultural context of the data.
7.	Another person looking over your results needs to be able to see the decision-making in your analysis and interpretation, and this is partly your supervisor's role.

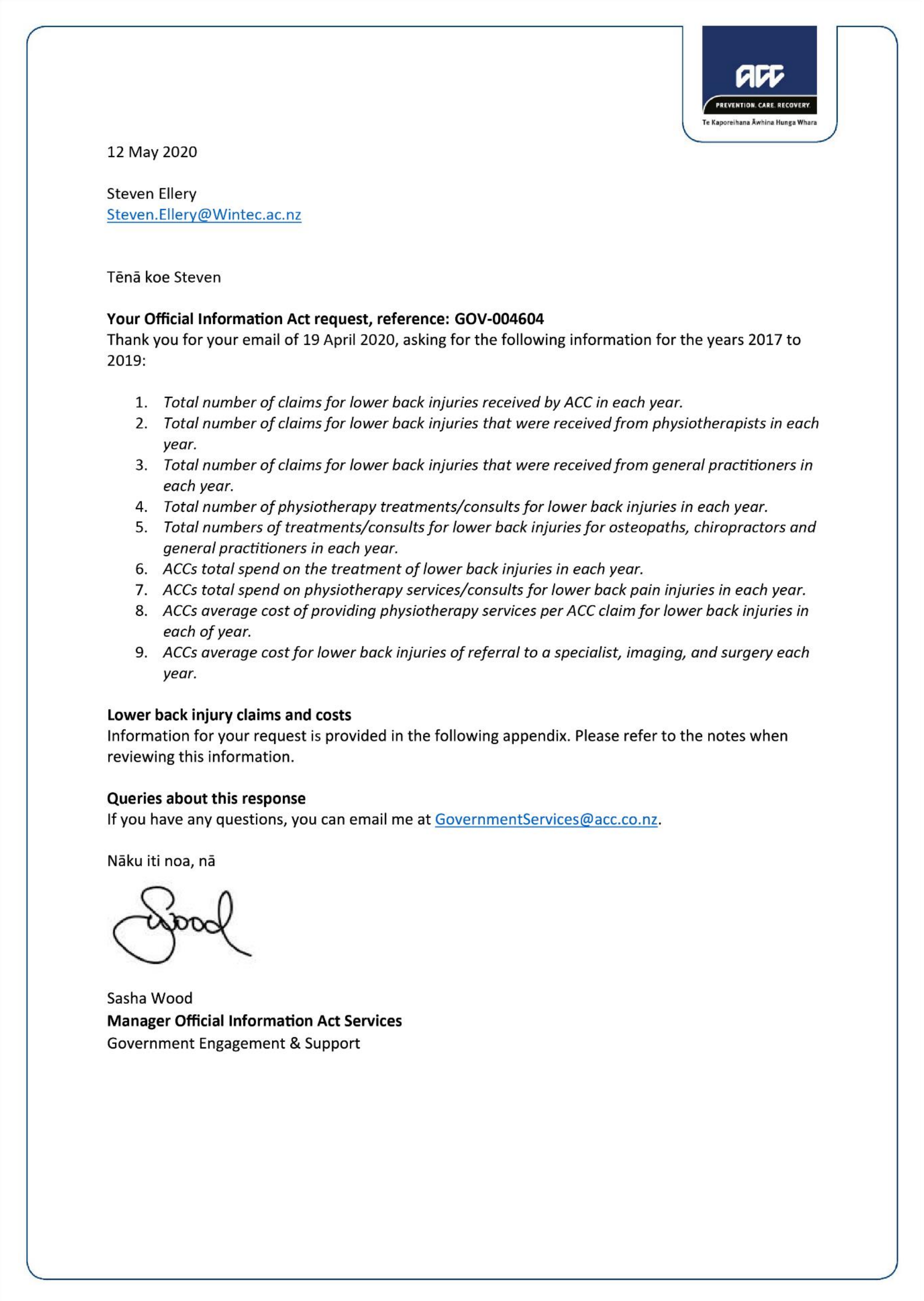
Please contact Dr Gwyn Lewis gwyn.lewis@aut.ac.nz if you have any questions about this feedback.

You may be contacted in 12 months' time for feedback about the process and the usefulness of these comments and recommendations to your project.

Signature: Date: 21 February 2019

Grant Mawston
Mātauranga Māori Consultation Committee

Appendix 3: Official Information Act Request ACC Statistics 2020



ACC
PREVENTION. CARE. RECOVERY
Te Kaporeihana Āwhina Hunga Whara

12 May 2020

Steven Ellery
Steven.Ellery@Wintec.ac.nz

Tēnā koe Steven

Your Official Information Act request, reference: GOV-004604
Thank you for your email of 19 April 2020, asking for the following information for the years 2017 to 2019:

1. *Total number of claims for lower back injuries received by ACC in each year.*
2. *Total number of claims for lower back injuries that were received from physiotherapists in each year.*
3. *Total number of claims for lower back injuries that were received from general practitioners in each year.*
4. *Total number of physiotherapy treatments/consults for lower back injuries in each year.*
5. *Total numbers of treatments/consults for lower back injuries for osteopaths, chiropractors and general practitioners in each year.*
6. *ACCs total spend on the treatment of lower back injuries in each year.*
7. *ACCs total spend on physiotherapy services/consults for lower back pain injuries in each year.*
8. *ACCs average cost of providing physiotherapy services per ACC claim for lower back injuries in each of year.*
9. *ACCs average cost for lower back injuries of referral to a specialist, imaging, and surgery each year.*

Lower back injury claims and costs
Information for your request is provided in the following appendix. Please refer to the notes when reviewing this information.

Queries about this response
If you have any questions, you can email me at GovernmentServices@acc.co.nz.

Nāku iti noa, nā

Wood

Sasha Wood
Manager Official Information Act Services
Government Engagement & Support

Appendix

Table 1: New claims for lower back/spine injuries, by treatment provider who lodged the claim

Provider	2017	2018	2019
Physiotherapist	78,960	74,616	74,939
General Practitioner	103,968	108,024	108,890
Other	60,447	62,069	66,020
Total	**243,375**	**244,709**	**249,849**

Table 2: Number of services provided for lower back/spine injury claims, by treatment provider

Provider	2017	2018	2019
Chiropractor	312,679	330,791	343,121
Physiotherapist	302,570	300,845	285,779
General Practitioner	151,762	152,093	157,921
Osteopaths	131,513	141,463	148,508
Other	1,700,026	1,830,263	1,934,369
Total	**2,598,550**	**2,755,455**	**2,869,698**

Table 3: Cost of services for lower back/spine injury claims

Provider	2017	2018	2019
Total	$373,653,852	$410,718,666	$437,627,342
Physiotherapist	$12,561,022	$12,652,559	$12,388,160

Table 4: Average cost of physiotherapy for lower back/spine injury claims

2017	2018	2019
$215	$219	$223

Table 5: Average cost per claim for elective surgery, high tech imaging and clinical service consultation

Provider	2017	2018	2019
Elective Surgery	$14,314	$14,361	$15,355
High Tech Imaging Services	$1,184	$1,180	$1,255
Clinical Services Assessment*	$273	$277	$281

*Based on payments for the first specialist assessment (simple and complex assessments) under the Clinical Services contract

Notes

- Data was extracted on 1 May 2020, and may differ if re-run at a later date.
- The information provided in the tables is based on the following types of claim:
    - Accepted for cover
    - The injury site is lower back/spine.
- New claims (in Table 1) have been counted by the date the claim was lodged with ACC.
- The information for Tables 2 - 5 is based on the accident date of claims.
- Accredited employer claims are not included in the data.
- Costs are based on payment date, which may differ from when the service was provided.
- Costs exclude GST.
- Costs do not include any acute services, which ACC pays for under the Public Health Acute Services (PHAS) agreement. This is a bulk funding arrangement between ACC and the Ministry of Health.

Appendix 4: Pre-assumptions interview transcript

Pre-Assumptions Interview

Female Speaker: Welcome to this interview today, Steve. So, bear with me while I get my head in the space.

Steve: Out of the last meeting.

Female Speaker: Yeah. That's right. Being present.

Okay. So, today we're going to explore some things with you about your perspectives and ways of thinking about practice, particularly when you're thinking about the work that you do with people who present with low back pain. I'm going to ask you a range of questions about the types of people that you see, how you work, why you work in that way and things that you think might matter most in terms of outcome. We're just going to work through some questions around that. Does that sound okay for you?

Steve: Yeah.

Female Speaker: Okay. So, to start with, maybe if you could just tell me a little bit about the types of people with low back pain that you currently see in your practice.

Steve: I see a broad range of people with back pain that range from, say, those with a first episode, acute episode of back pain, through to those with more chronic episodes of back pain or a more persistent episode, so through a broad range of ages to go with that. So I see children, I see those right through the lifespan, really, and then from a range of different backgrounds, occupations, ethnicities, so, again, a very broad range of people and a very broad range of presentations.

Female Speaker: Okay. The first thing you said was people that come maybe with their first episode of acute back pain versus those people who have been living with it for some time. If you were to think about some of the things that you think really distinguish those two groups from another, those two people, what are some of the things that you see that are really characteristic, say, of people that come to you for the first time?

Steve: The first thing that jumps into my head is confusion and fear, so those with a first episode and no previous episode to base their experience on often will present not knowing: not knowing what this means, not knowing what the future holds, not knowing where the pain is coming from or whether it will get better, whether it will go away or not. So they turn up as a very, I suppose, not necessarily blank slate because they've got a lot of other inputs into it that determine some of their thoughts around it, but they are very much an opportunity, in my mind, compared to somebody who has a more persistent problem with their back and is turning up to see their fourth or fifth healthcare provider that they've seen in the past 10-15 years, so they already have a range of ideas about their problem.

Female Speaker: Okay, cool. Thinking about that first group then, for starters, and then maybe if we talk about the more chronic group in a moment, if you're thinking about the person who comes, confusion, fear, what do you think they're looking for? When they come to you, what are they seeking?

Steve: Curative care. I think predominantly people come in expecting you to do something to fix this problem and make it go away. But I'm also aware that people come with a range of expectations and a range of different objectives for coming, so it's really important for me to explore that so that I'm not pigeon holing everybody into expecting curative care, I'm asking the questions about what is it that they do expect, so that then I can tailor what I do to meet those expectations.

Female Speaker: Yeah, okay. So, when you're thinking about the range of expectations that you have been exposed to over time: so there's curative, fix me, I want you to do something – you've already said that one – what other kinds of expectations do you see in your practice or have you seen?

Steve: Understanding what's wrong, what does it mean, will it get better? So, some people want to understand what the nature of the problem is and they want to receive reassurance that this problem is going to improve, or they might want guidance in a particular way towards how they can help themselves recover, or they might expect to be sent somewhere else for something else, imaging, or they might expect to be sent for a further review because the problem is quite serious and they're looking for confirmation of that.

Female Speaker: Okay. You said before when you first described that group, you talked about: they come with a blank slate, but then you kind of said, "But, actually, not entirely a blank slate." What do you mean by that?

Steve: People present with beliefs, and their beliefs are heavily influenced by a range of sources. They'll be influenced by what they've heard from their family members, what they read on the internet when they were researching why they've got a sore back, potentially from doctors, they've seen the GP, the GP's referred them for physio, their friends, acquaintances, people they sat next to in the waiting room who've talked about their experience. So they turn up and they've got a whole lot of thoughts going through their head as to what their problem is, influence from a whole range of different directions. So I guess "clean slate" is not really the term for it, so for any, really, because it's not.

Female Speaker: Yeah. Cool. And so when you're thinking about this particular group of people – we will come to the chronic in a moment, I promise – when you think about your first approach with this type of person, so you've already said that you might explore and learn a little bit more about what they expect, but what would be your instinct? What would be your gut instinct about the first thing that you would do as a physiotherapist in working with these people?

Steve: Make sure they haven't got a serious condition. The priority is always going to be: eliminate any serious causes of back pain, because, from that, everything else will follow in terms of the assessment. So you're eliminating red flags, really. So I'll prioritise that, alongside creating the rapport, building trust with the person through that initial process.

Female Speaker: How do you do that?

Steve: Yeah, easier said than done. It's somehow creating a connection, much like any interviewing. It doesn't work particularly well unless you can create the environment where the person feels free to volunteer information or at least respond to the questions that you've got, to ensure that you're getting the right information. So we need to take time at the outset to establish some kind of connection somehow. Is it where they live, and reflecting on how near that is to your house? Is it their occupation, something that interests you? It's a matter of trying to find that little bit of a connection that then just lets them relax. It could be the fact that they brought children in with them, and talking about the children. So you create a good environment for discussion.

Female Speaker: Why do you think that matters?

Steve: Because if you can't establish that, you can't establish rapport. If you haven't got rapport, you're simply not going to gather the information. It might be really important to really understand how to help that person. And if you maintain that superficial level of clinical evaluation, you'll only really get clinical information, which will be inadequate, on most occasions, to help somebody, whether it's acute or chronic.

Female Speaker: So you're distinguishing between clinical information and what other types of information are you …

Steve: Yeah, information, really, about the characteristics of the presentation, the things that are important to driving these symptoms. So there is a real distinction. A clinical evaluation is about identifying a mechanical biomedicalised pattern, a red flag type scenario or a pattern that fits into some kind of mechanical diagnostic classification system, versus really understanding them from a truly multi-dimensional perspective but understanding the various factors that might be impacting on the presentation.

Female Speaker: What kinds of things, when you're thinking about the various factors that you would be wanting to open up -- I guess you've talked about the creating a connection and building rapport as being critical to allowing space for people to talk about more than the clinical presentation. What other stuff are you looking for and seeking when you're thinking about the multi-dimensional?

Steve: Because I'm heavily influenced by the thinking around a bio-psychosocial model, what I'm looking for, really, is the characteristics of a multi-dimensional presentation as opposed to a uni-dimensional, so I'm thinking about identifying patho-anatomical, biomechanical nervous system factors, lifestyle factors, psycho-social factors, and, as I'm going through a consultation, I'm looking to identify where the predominance of drivers for the condition might lie so that then I can better tailor my assessment and treatment to improve the outcome.

Female Speaker: Okay. So you've got a connection, you develop rapport, you have clinical tools that I guess you use to learn more about the nuts and bolts, but how do you capture the other stuff? Are you asking particular questions? How are you exploring that with people?

Steve: That's a conversation. I've got a format that I use that was influenced biomedically and put together 15 years ago. So that forms the basis of the assessment, but I pad that out by following what I would think are cues that are provided in the conversation. So I'm asking questions but then following the natural thread of the lead in order to understand the complexity of the condition. If the answers head down a structural route, I'll be following up with a structural type series of questions to understand and fully evaluate that aspect of the condition. If there are verbal cues that suggest to me there's some kind of lifestyle influence, then I'll be following that, as it's volunteered, which then comes back to the critical nature of the rapport that you build, because those factors might not necessarily be volunteered and might not be comfortable to be discussed unless you've got that degree of comfort and rapport in the discussion.

Female Speaker: How do you know what cues to follow?

Steve: I've got a format in my head as to the things I think I need to know. So then I would ask questions that introduce the idea, and the extent to which the information comes back to me will determine the degree to which I'll continue to follow that line of thinking or course.

Female Speaker: What's the format in your head?

Steve: I guess it's that one that I've just talked about in terms of the five different --

Female Speaker: Okay, so the lifestyle, the --

Steve: Yeah. I want to get to the end of my subject of evaluation and understand some key factors in and around what we call a Snippets(? 13:05) Analysis, so I can understand the irritability, the sensitivity, how much is that going to go in my testing, but I also want to get to the end of that and really understand those key five dimensions, so that I can, again, tailor more appropriately and have some different expectations for the objective assessment, depending on what the answers were.

Female Speaker: Yeah, okay, cool. So I'm going to come back to that in a moment. So, turning to the chronic. You gave some characteristics of the first-timers. Tell me about some chronic characteristics. What are the things that they normally present with, in your experience?

Steve: What's jumping into my head? I don't approach them any differently, but they do have different characteristics, mainly in and around the length of time they've had their condition has given more of an opportunity for them to consult with other healthcare providers, get input, different information, assimilate that. They've had a range of experiences with their symptoms, but then dictate what their expectations are, so these things are interacting to consolidate their beliefs and attitudes towards their problem over a long period of time, so I'm aware that that's going to make it a lot harder to change those because they're potentially far more ingrained than the acute situation.

Female Speaker: Okay. So you talked about the acute situation as an opportunity. What would you say about the chronic?

Steve: It's going to be harder to change the trajectory in the prognosis, the long-term future. There are far more complexities to altering what their beliefs are, compared to the initial situation. The initial situation's a real opportunity to change the course of a person. They're reflecting on it and sometimes you can't; there's another interesting thing.

Female Speaker: Yeah. So, when you're thinking about the chronic, what are they looking for when they come to you?

Steve: A lot of them are still looking for the same thing: curative care. A few of them are looking for the answer that is often the one that they need. So, most of the time, they're still looking to have pain relief, to be cured, to find the answer, to be able to put this behind them and move on. A common thing that people would say is: "This can't go on. I've had enough of this," which is suggesting they are ready; they want to stop, effectively.

Female Speaker: Yeah. So when you think about your approach to them, compared to someone first time, is there anything you would do differently? How do you approach?

Steve: I am going to spend a lot more time exploring where their beliefs have come from. So they will commonly talk about having seen a specialist, a surgeon, three other physios and a chiropractor and two GPs and a massage therapist. They'll talk about all the history. I've spent a lot of time trying to understand that: what did that person say, what did that person do, what was your response to that, what did you think of that? I spent a lot of time trying to understand that so I can really get a sense of the journey, their journey and how it's impacted on them turning up with me that day.

Female Speaker: Yeah, okay. You talked about the five areas and that multi-dimensional exploration that you will engage with with the acute. Is there a similar process going on here with the chronic, or how do you see it differing?

Steve: I don't see that differing. I'm still going to be trying to have my categories with the answers in them so that I can, again, tailor assessment and treatment based on that.

Female Speaker: Yeah, okay. But in this case you're saying that, I guess, you delve deeper into some of the history because there's a history, in some ways.

Steve: Yeah. So it will require more depth of analysis.

Female Speaker: Yeah, okay. You've talked a lot about the fact that people come with stuff – acute or chronic, they come with stuff, so they come with prior experiences, prior beliefs, expectations. How do you manage that? How do you manage any discrepancies, say, in your practice, in terms of the direction that you might go with them, informed by all of your background knowledge and experience as a physiotherapist and navigating any tension that might exist there?

Steve: It's the most challenging part of clinical practice. When you have a degree of knowledge about what is the best evidence-based practice and it conflicts with the patient's understanding of the answer that they're looking for, there is that tension in the situation, and, as therapists, we tend to accede to the patient's wishes and provide the patients with what they need. Now, I don't necessarily see that's a bad thing, because it's part of collaboration and cooperation, and our clinical outcome's better when we do that, compared to if we don't. I don't think anybody's really explored which way would be superior. But certainly, when you experience it a lot and you present people with information and it drives their beliefs further, they simply don't believe you, they reinterpret your information, you become very aware that it's a very difficult situation. So presenting a different idea about how to help them has to be done very subtly and carefully in a way that will influence their thinking without them actually realising that you're doing it. We often talk about it in the clinic as being a process called inception, which was a movie. And that's actually what we're trying to do: get people to think that the solution that you're planted is their own, so that then they engage with it. But that's a very difficult process.

Female Speaker: Can you give me an example where you have navigated that process successfully? So can you think of a time when there might have been some real tensions but where you've negotiated that process with someone?

Steve: Yeah, I can think of a patient who presented after three surgeries, and multiple healthcare providers and multiple input, and he was sent for post-op rehab after the third time. Initially, he didn't want to do anything. In his view, which was influenced heavily by his occupation as an engineer, was that a structural problem would be made worse by activity. So he was very adverse to doing anything. So, really, what I had to establish initially was trust: to get him to trust me, that if he did the little thing that I suggested, which was sit on the exercycle for about three minutes, that he would actually be okay, and create a positive experience. And because I'd managed to establish his trust initially, despite the fact he spent the whole time telling me that this is bad news, it actually wasn't.

Female Speaker: Thinking through that particular scenario then, and thinking about -- what did you do or what do you think you did that contributed to the development of that trust?

Steve: Yeah, I like to think it's the way that I projected myself in terms of my confidence, that what I was going to ask him to do wouldn't harm him and would actually help him. So I like to think that. Or did he actually just turn up ready to change? He'd had enough: three lots of surgeries, three-odd years off work, a young guy. He really wanted to go, he really wanted to get his life back. So I struck him at the time when he was turning, therefore I didn't need to actually do that much. I just simply provided him with a little bit of a rudder to guide his direction, and away he went.

Female Speaker: So do you have a gut feeling on whether or not either of those was more powerful at the time or …

Steve: Yeah, the longer I practise, the more I think readiness to change is critical. If somebody isn't really particularly in the chronic state to try and change, few interventions actually offer them any long-term benefit. They've got to turn up and they've reached a point in their lives where they will actually engage with what you're suggesting and it will lead them out of it, but if they're not ready, it's like telling somebody to stop smoking. If they're not ready and they don't want to do it for themselves, they simply won't give up.

Female Speaker: Do you consider yourself or the professionals to have a role in supporting someone to become ready to change, or have you got examples of situations where you feel maybe they weren't but they became ready during the course of working with you?

Steve: Yeah, we're under-trained for, effectively, behavioural change type therapy, but really that's what we're dealing with every day. I can think of more situations where the person isn't ready to change and the feeling of futility about trying to help them through their problem, it's a very demoralising part of the practice because you can see that they're not ready to change, and, despite your best efforts and energy and enthusiasm and persistence with it, it isn't going to happen. And, in effect, that's quite sad. And so you can't lead some people out of it.

Female Speaker: Okay, so I'm going to come back to that in a second, but when you think about this particular person, for example, let's say you're right. Let's say you happened to strike at the right time. Do you think there was anything about what you did, about the way that you worked, about the way that you engaged with that person at the outset that was able to turn that readiness into something or -- like if they'd gone to another person?

Steve: Yeah, I can think of someone else who's probably a better example of somebody who I've worked with over a number of years and through several different funded programmes, and the first programme was a failure, with him going on to a second surgery. And the second time he turned -- he's now been coming in for close to nine months, and we have a different clinician-patient relationship compared to what other people would establish with him. But through the different type of relationship that we'd built, I feel I have led him to a different place, like he's come a long, long way, and potentially he wouldn't have got to where he is now if we hadn't taken the approach that I've taken with him. But having said that, he's still not ready to change in terms of his thinking around, say, his capacity to go back to work. There are too many barriers to his reengagement in the workplace, despite the very high level of physical function that we've achieved.

Female Speaker: You say that the relationship that you have with him is different from the relationship that he maybe has with other providers. If you could articulate what it was that's different?

Steve: Yes, I would say I made friends with him. I wouldn't socialise with him outside of work, but I established a rapport with him, that, over that time, the friendship that we developed clinically has allowed me to understand him, what his concerns are, what his fears are. He will openly confide all kinds of things that have happened in his life during that time with me, just like two mates chatting over a beer about their problems, which doesn't happen that often. So that's the sort of difference in relationship, and if you watched me treat him, it would be seen as being very non-clinical. It's very difficult to write notes using a biomedical notes-making model for a clinical discussion that is more in tune with understanding people, treating him as a person with a problem, rather than a physical problem.

Female Speaker: How do think that unique relationship has made a difference to outcomes for him?

Steve: I think it's allowed him to talk to me about what really matters, so that when I understand what he's afraid of, it allows me to help him conceptualise it in a way that reduces the threat. Initially, he talked a lot about what he was fearful of with his back, and it allowed me to understand what he was actually thinking when I did things with him. If you don't understand what they're thinking is going to happen when they bend over, you're really going to struggle to help improve their ability to bend over because you just haven't got the intuition to see that they believe that their spine is going to explode out of their back, which is literally what this fellow was thinking. But understanding that then allows you to tailor your education or discussion to provide that reassurance, so he follows.

Female Speaker: Yeah. So how do you think that was different? You said that that's the second episode of care with him, whereas you had another episode of care that you say failed. What's different between those two and what led you to that place?

Steve: The first time, the biomedicalised idea that he was structurally wrong was entrenched and the continuation of pain in his mind still needed to be cured. And until that was cured, he was simply going to maintain his focus on it, and it was always going to prevent him from doing things. He needed to have surgery again to fix that part of the problem, and once he'd had the second surgery, that part of the problem was fixed. There was no longer any plausible structural explanation for his symptoms. So he became more open to change.

Female Speaker: Is that always needed? In order for you to be effective, do you think that there will always need to be the resolution of that before you can do something, or is there any occasion where the way in which you are working with him – I don't know why(? 30:12) – whatever you've done, means that they don't need to have that tangible validation?

Steve: It's a different situation and it's a far more challenging situation because the person's got to want to engage in a longer-term support process where they receive your support and not necessarily demand you to provide them with a cure. And that situation is simply not supported by the health system we have because it's overly focused on identifying cause and cure. So, few people tend to remain in that situation for long.

Female Speaker: One of the questions is why you've come to practise in this way and why you've come to see these things as important. Because you've talked about a number of things around multi-dimensionality, bio-psychosocial, connecting and rapport, and there's been a couple of times now where you've challenged some of the biomedical nature of the system in how you've just been talking. How has that come to be? What has led you to this point and this way of thinking about managing back pain that you can pin down, I suppose? It's tricky.

Steve: Yeah, it is. It's an evolution that I think, as an enquiring practitioner, you go through. So I could say that I received a very biomedical education. But having said that, I also had experiences with back pain prior to having my education. So I came into my education with a range of experiences and expectations in and around back pain to start with, that had been influenced by lots of different sources.

Female Speaker: Tell me more about that. So, as in your own personal experiences of back pain?

Steve: Yeah. Sometimes I think that I present as somewhat as a contradiction in terms. I had a lot of problems with my back for many, many years. But it's an interesting thing because I would have had problems with my back for close to 25 years without really ever thinking I had a problem with my back. Are people born with a perception? Because I would have acute episodes worse than most of my patients, where I couldn't move because of the significance of the pain. But it would go away. I would get better. And I would never think that I had a problem with my back and I certainly wouldn't go care seeking, because, in my mind, I didn't have a problem with my back. I just got a sore back from time to time, didn't I, and that's not … So, that way of managing my back pain does influence my thinking very heavily now. So I probably still guide people in the same way that I would have wanted to be guided when I was in their situation years ago.

But having said that, the best thing that ever happened to my back was one time it didn't get better and then I went on and needed surgery. Did I need surgery? That's another question. But I went on to have surgery and it was probably the best thing I ever did for my back. But I seem to spend a lot of my time now counselling people in the benefits of not having surgery, having my scar on my back that suggests it's a good thing to do.

Female Speaker: How do you reconcile that tension in practice then?

Steve: I remind myself that after I had surgery, I changed a lot of the demands on my back. Prior to surgery, I spent a lot of time flogging my back with a lot of heavy lifting type exercises, which by and large I don't really do much any more, now that I'm a lot older. So maybe I just reduced the stress and tension on my back. If I'd done that in the first place, I probably wouldn't have needed it.

Female Speaker: So you've had personal history of back pain. You've also experienced surgery and post-surgery management of that. Did that all happen before you entered into physiotherapy or has some of this happened along --

Steve: Yeah, along the way. I'd had about a 10 or 12-year history of it before I entered physiotherapy, thinking that if all else failed, changing careers to be a physio, I'd learn how to manage my back and fix my back. Lo and behold. So that was a key motivator for me doing it. But did my views about it change after that? I guess I received a far more biomedicalised and patho-anatomical structural model of my spine to … Did it change my trajectory or thinking, and the answer's probably "Yes." Once I started physiotherapy, I became far more likely to seek care for my back than I ever had in the preceding 10-odd years. So those were the first times that I really can recall going for physio, being referred to a specialist, having your traits(? 36:07) and becoming a patient. And that was because my knowledge started to tell me that I needed to be a patient, whereas my intuition previously had suggested I didn't.

Female Speaker: Which is interesting.

Steve: Yeah, so it changed my thinking.

Female Speaker: You've said that you'd say that your education was somewhat biomedical.

Steve: Mm, yeah.

Female Speaker: Can you pinpoint when you might have started thinking differently about practice, where you started to incorporate more bio-psychosocial or at what point do you feel like there's been a turning point or shift for you in how you practise?

Steve: I suppose I practised for a long time very biomedically and I look back and it was the right thing to do because it was consistent with my knowledge, and day in, day out I treated people in that way. I've always reflected on why some people do well, why some didn't. But I didn't really become a truly, I suppose, reflective practitioner until I did postgraduate study. I found the postgraduate programme still very biomedical in the way it approached low back pain. But it got me reading more, and the more I read, the more it led me to things that we weren't taught about, and the more it started to stimulate my curiosity as to why some people do well, why some people don't. I started to ask more questions and then read more. So really, the postgrad paper was a springboard for further reflective thinking, and I followed it up with a lot of self-directed learning, really, just continuing to delve into it and read more widely and read different perspectives and gain more insight into these things. So it's curiosity.

Female Speaker: Okay. So when you think about that curiosity in terms of learning more, self-directed learning, developing your own understanding, at what point does that start to influence the way you work, and what informed that transformation?

Steve: In my final postgraduate year when I was doing the muscular-skeletal paper, I also went to a Peter O'Sullivan course which was on the multidimensional nature of low back pain, and for me it was a very eye opening course and experience, and up until then I would probably have been very, very strict and biomedical in my approach. But a lot of things he said resonated with me, they seemed to strike a chord with some of my deeper beliefs about the people I was seeing. And, like a lot of things, you had to have a positive experience to reinforce that it was a right idea. And at that stage, I was still having a lot of problems with pain. I recall driving down to Rotorua with back pain all the way down – but it wasn't a problem because pain's just normal – and then he talked a lot about the research in and around core stabilisation exercises and co-activation and how that potentially is part of the sensitising process. I'd been an absolute advocate of core stabilisation exercises for a long time and could do things few others could in terms of strength, but he talked about relaxing them and abdominal breathing and we observed him doing that with patients. And I drove back from Rotorua to Auckland and I concentrated on relaxing, let my stomach muscles go and drove all the way back without pain. So it was like a before and after experience that then reinforced what he said by me going back without any symptoms. So when I saw what(? 40:02) it was like, okay, well, just different.

Female Speaker: So your personal experience actually of trying out some of those strategies and gathering your own evidence for those strategies, in some ways, then kind of became a reason to take it seriously in the way you work with people. Is that in (overspeaking 40:25) your own patients?

Steve: It made me think that I should learn more. I needed to know more to substantiate, because if I was going to do it, then I had to be better skilled at doing it, so I continued to try and gather those skills so that I can help people. But having said that, some people just don't respond.

Female Speaker: So, don't respond to the particular exercises or the broad approach or the …

Steve: Yeah, the approach you take. They just don't respond. And people are also coming with their little experiences that have reinforced their beliefs about it and they may need an epiphany to change. Sometimes I think that that's what we're just trying to do, provide that epiphany for them so that they can see there's a different way. But a lot of the time that approach doesn't work with them.

Female Speaker: What do you do when they don't respond?

Steve: It comes all the way back around to characterising them and trying to understand what are the things that drive their symptoms and then tailoring and matching. If you can understand them from that broad perspective and gain that rapport, what you might find is that the bio-psychosocial model just doesn't apply to them. They're biomedical. Their beliefs are biomedical, their attitudes are. What needs to change them is biomedical. Slap them around the head with a wet fish called the bio-psychosocial model, it won't change them. It will entrench them further. So you've then got to be biomedical in your approach with them. You've got to match that.

Female Speaker: So do you feel like you get outcomes with people in those instances?

Steve: I would think I am more likely to get a good outcome if I've matched their underlying framework for analysing their problems.

Female Speaker: Yeah, cool. So even if that framework is inconsistent with how you might have approached it otherwise?

Steve: Yeah.

Female Speaker: Okay, cool.

Steve: That's very, very complicated to implement. Some people you simply solve by using the bio-psychosocial model and pointing out to them that, yeah, they are really just far too overworked and not sleeping well at night and under a lot of stress financially, and they get it straight away. But they've given you the cues that let you know that actually they recognise the importance of those problems, because they're talking about them, whereas others, they're talking more structural, and you know you've got to come in from a structural perspective, otherwise you can talk about the fact that you know they are under pressure in other areas of their life and it just won't resonate.

Female Speaker: Yeah, okay. You've talked about quite a few things in terms of the way in which you work and how you might approach things. What do you think influences outcomes for people? What do you think are the most critical things that influence outcomes for people?

Steve: If there was one thing that underlied everything, it would be personality and the belief as to whether they can change the situation or not.

Female Speaker: So, their belief or your belief?

Steve: Their belief. Because there's plenty of people I've seen over the years. I'm a therapist. Self-efficacy is one of the most important determinants of outcomes. Plenty of people who I've been -- absolutely, we can change the outcome, so positive and provided them with strong leadership to lead them out of it, and it simply hasn't worked. Is my leadership just not strong enough or actually is their self-efficacy far more important in that and their personality? It's like injury happens to people, and people have personalities and characteristics, and sometimes, as far as long-term disability goes, injury happened to the wrong person, because that person is almost susceptible to things going extremely wrong if they get injured and hurt. And there's a lot of factors that contribute into that. They may have a whole lot of pre-existing co-morbidities, health co-morbidities, they may be a very anxious personality, they may be a catastrophic thinker, they may have very poor support networks all around them and they may come from a background, low education, issues with socioeconomic status. They may have had a whole range of psychological factors from, say, an abusive past or something like that, that are impacting who they are today, and then they bent over and picked up their purse and hurt their back and now they've got a 10-year history of back pain in front of them.

Female Speaker: So that's lot of stuff about the patient in terms of what they bring that might be critical to outcome. What about you?

Steve: Yeah, well, all of those things can be in me. Like do I do well with people if I've had a poor night's sleep or I'm stressed or the kids are sick or something else has upset me? Probably not. I don't. What if the business is under financial pressure? How does that affect my interaction with people? Have I got the energy to interact with them and create that great idea of rapport and communication and leadership? Sometimes the answer's no, sometimes the answer's yes, depending on the circumstances. Other things that might be important: my current reading, my education at the moment. If I'm reading around a particular area, am I more likely to then just go in and I'm doing lots and lots of stuff on this and I'm no longer doing that, which, yeah, it does happen.

Female Speaker: Yeah, so whatever's upfront in you mind at the time is a strategy?

Steve: Yeah. If people come and see me nowadays --

[break in interview]

Female Speaker: That's useful. So I'm going to dig a little bit further on that because, let's say, two people walk in the door and they're both exactly the same in terms of the personality that they bring into the room, their beliefs, fear avoidance, catastrophising, whatever else they might bring into the space. When you think about your approach, the way you work with people, and let's say you take two different approaches, what's the approach that is going to get the best outcomes for that person? What do you think is critical to outcome?

Steve: The approach that matches what they need. So I think, those two people: one's me 20 years ago, one's somebody who I've been seeing for about six or seven months now. I walk in the door because I don't know why I've come to physio at this time but I have, and I'm going to get better anyway because I have every other time. That's what my experience tells me, and actually it's too important for me to not get better, so I'm just really here for you to tell me that there's not too much wrong with my back. That's what I need to reflect back, do some tests, do a nice thorough examination, there's nothing serious happening here. Yeah, just like last time, you're going to be okay and it's going to be pretty predictable and you're going to get back to riding your bike, lifting your weights, doing whatever you like and, really, you might have a problem again in the future but that's pretty normal. I'm going to be happy with that.

This other person has bent over and was plugging the seatbelt in in the back seat of the car and felt a little bit of pain in their back. And then simply could not get out of the car, had to call the ambulance when they arrived home and was taken to hospital on gas and now is in front of me catastrophically thinking and in tears about the serious nature of this back problem. I've got a different approach that I need to use here. I really need to be understanding why they responded in that way. Why did the ambulance get called? What do they think had happened? What do they think about the MRI that they did in the hospital? The MRI didn't show anything. "The doctor said that that means I'm fine, doesn't it? But I'm not, so what did the MRI miss? Is it far more serious?" So, somehow I've got to meet that person's need to understand their problem in a way that resonates with them, in order for them to recover, just like I had to meet his.

Female Speaker: Yeah, cool. Okay. That's great, that's useful. So you need to tailor and find a way to: what does this person need from me and go with that.

Steve: Mm.

Female Speaker: Is there anything else that you think is really critical to outcome that you think that you would always do or always focus on in the way you work with people?

Steve: It's really the pre-existing underlying beliefs as to what they think the problem is and what's influenced that. So they really want to get to the bottom of that, because if the surgeon has said it's the worst that he's ever seen on imaging, we're in for a rough ride, that you can go to physio but it probably won't do you any good, that's it's not really going to happen. But you've got to understand that, and at least you can then temper your expectation as to what the potential outcome might be. You've still got to be open because they still may surprise you. They may have heard that, three or four times, that their back is the worst that's ever been seen on imaging and god knows how they're still walking and not in a wheelchair, yet they still just don't believe it. So that person might surprise you.

Female Speaker: Yeah. Okay. What does a good outcome look like, from your perspective?

Steve: It looks like I'm influenced by all my reading because what it sounds like is that they're engaging in their life, with or without pain, doing all of the things that they would want to achieve and do in life with symptoms that they perceive are nonthreatening. I would like to be able to say that it means they have no pain, but my personal experience is that that's just not realistic and that's what the literature suggests as well – manageable pain.

Female Speaker: Yeah, cool. What do you think a good outcome looks like for them?

Steve: Being pain free, functioning fully in their life, just as they were, potentially, before their first episode, but predominantly pain free.

Female Speaker: Is that always the case?

Steve: No, it's the case sometimes but sometimes it's not the case, and then there's the challenge of having somebody understand what the outcome actually might look like, and it doesn't necessarily meet their expectations.

Female Speaker: Yeah. One of the questions here is around whether there are particular aspects that you find challenging. I feel like we've covered a lot of that, but, other than what we've already talked about, are there things that you would pinpoint as the most challenging aspects of your work with people with low back pain?

Steve: Yeah, well, they're personality traits that I would consider challenging. They are situational traits which may relate to their circumstances, so it's the personality in the circumstances, potentially also impacted by the structural situation. You really need an intersection of wrong person, wrong time, wrong structures in order to have a bad problem.

Female Speaker: Yeah. So, just briefly paint a picture for me of that particular situation. So, wrong person.

Steve: Highly anxious, a catastrophiser, under a lot of stress and pressure in a range of areas. They may be work relationships or home relationships. They have very poor self-efficacy or ability to see that they can change their future. So that personality will injure themselves. And the circumstance may be that they injure tissue that doesn't have great integrity in the first place. And they then have a range of co-morbidities on top of that. They may have issues with being pre-diabetic or diabetic or heart problems. I'm just thinking of one person who has just a list as long as your arm of other co-morbidities, and then all the personality challenges, and then had the misfortune of having a nerve root severed and surgery to correct a structural change in their spine that was causing them relatively disabling symptoms but nowhere near as disabled as that person is now. So again, it's that confluence of factors.

Female Speaker: So that person walks into your clinic. What's the first thing you do?

Steve: The first thing I did was try to offer them hope that things could be different, establish a relationship and base it on trust and try to use my self efficacy to lead them towards the light, the hope.

Female Speaker: Yeah. So why that approach?

Steve: It's like that sort of person walked in with a cloud and rain pouring on their head and you could see it from the moment that you walked into the waiting and saw them sitting there. Their demeanour and their body language and physical presentation and then their initial interaction with you indicate it was going to be a very difficult situation, and yet you had a lot of work to do to try and lead them forward.

Female Speaker: So you're picking up on a lot of cues just by what they look like in the waiting room before you even get a sense of who they are once you're with them?

Steve: Yeah, and the challenge then is not to be pre-judgemental and have those predetermine what you think. But you form a fairly good view of things that then can rapidly change when they get into the confines of a treatment room and open their mouth and something changes. So you've got to be open to that.

Female Speaker: Yeah. And when you see that person with the black cloud above their head in your waiting room, what are you thinking and what are you feeling at that point?

Steve: Am I strong enough? Can I do this? How long can I do this with this person? Am I going to be able to help them long enough for them to change? Are they going to be open to me helping them change? Let's see.

Female Speaker: Yeah. A lot of how you've expressed this is almost a sense of intuition about that person. What has informed your intuition over the years? How do you get to that point?

Steve: Experience. But I'm very wary of intuition because of how often it leads you astray. So, yeah, experience. The longer you're a clinician, the more people you see, the more experience you have in your database in order to then be able to somewhat categorise or classify people in various ways, that tell you how difficult or easy they're going to be to help.

Female Speaker: Yeah. Okay. Is there anything else on the tip of your tongue that you …

Steve: My approach sounds quite eclectic and hybrid, and it is. Because I've read about so many different approaches, I guess what's resonated with me from various approaches, I've amalgamated into a personal approach that I consider to be my approach that has its influences. So you don't necessarily read this as being a textbook approach anywhere. It's more an experiential combined with learning-based approach that probably most clinicians actually all have a hybrid version of themselves. It's influenced by all their various experiences and learning that they do. So what clinicians do – what we all do – probably looks a little bit different, which then is probably confusing for people who see them because people focus on different things and then they get different advice and information based on that.

Female Speaker: I'm aware that I'm asking more questions and covering ground that we've already explored, to some extent, but if you think about your hybrid approach, your approach, your personal approach, are there things, if you were to articulate that to me now, how would you describe, in a couple of sentences, what your approach is?

Steve: Now I would describe it as a person-centred approach where I'm trying to be intuitive to the needs of people, primarily, above all else, so keeping people at the centre of the model. I'm trying to make sure they don't have a serious problem. I'm trying to identify things within their presentation, their characteristics that allow me to help them, to move them forward, to better understand their problem and recover or live with the problem.

Female Speaker: Yeah, cool. And we've kind of discussed this as well, but just in case there's anything that we haven't talked about, in terms of the things that you think matter most within your encounters, within that interaction, those therapeutic encounters, what are the things that you think are most important?

Steve: Confidence: your confidence, giving them confidence; understanding their needs.

Female Speaker: Yeah, cool, okay. Is there anything else that we haven't discussed that you would like to share? Is there anything that you hoped that we'd talk about that we haven't talked about?

Steve: Probably clinical reasoning, because I do use clinical reasoning. I'm not just focusing on understanding a person and characterising them. I'm also running through a model of care where it is Steve White's algorithm somewhat based, where I'm working through processing whether they have red flag conditions and then if they don't, I'm using my multidimensional model, but within that, there's patho-anatomical, biomechanical type factors. I'm aware of the classification systems. I'll use a little bit of McKenzie, I'll use a little bit of Shirley Sahrmann and I use a little bit of Peter O'Sullivan's movement classification model, depending on what the person presents with. It'll lead me towards potentially a way of (inaudible 1:04:07) analysing them, which then feeds into the way that I treat them, based on their underlying belief as to what they need. So that's all still happening and I'm still evaluating impairments, I'm still treating impairments. But the rest of it underlies that, and it's the way I present the information around that that's really important. So I may go through a movement-based classification model or system to identify a pattern of movement that's problematic, but then I'm also aware that there's a person that has that, and that I need to attend to their needs as well as potentially changing something else within their physical presentation. So I haven't moved completely away from, you know, bio was part of the bio-psychosocial model. It's still there.

Female Speaker: Yeah, definitely. Cool. Anything else that you can think of?

Steve: When I said "readiness to change," just it resonates with me a lot at the moment. People really need to be open to the approach that we're providing in order to get better, and if they're not open to it, we need to work hard to understand why not, and potentially try and open a path to that so that they become ready to change, and then we can influence their outcome. And that's why the acute ones, I probably called them the blank slate because you may be able to imprint on them a readiness to change just in your interaction with them, that they carry for the rest of their lives.

Female Speaker: Yeah, which is why you're talking about them as an opportunity.

Steve: They're a real opportunity. Yeah, I really like those ones. I want them because I think if I can share with them good information at the outset, they may have personality characteristics that lead them down the wrong track if they see the wrong practitioner and getting the wrong information, and that's quite tragic a lot of the time. So I like to avoid that.

Female Speaker: Yeah. Cool. Is there anything else that you can think of?

Steve: There was something else but I've forgotten it. It was on the tip of my tongue. No, I'm happy with that.

Female Speaker: You sure? If you think of something, you can always write it down as well.

Steve: Yeah.

Female Speaker: Okay. Cool.

Appendix 5: Reflective statement

Maintaining Sincerity and Reflexivity: The Research Lens

According to Tracy (2010), a key hallmark of high-quality interpretist-constructivist research is that it is 'sincere'. The notion of sincerity means that the study is characterised by researcher self-reflexivity about how their subjective values, biases, and inclinations might influence the research processes and findings (Tracy, 2010). Sincerity is related to notions of authenticity and genuineness in that it means "… the research is marked by honesty and transparency about how the researcher's biases, goals, and foibles …. play a role in the methods, joys, and mistakes of the research…" (Tracy 2010, p841). In interpretive description, the sincerity and self-reflexivity of the researcher are important because knowledge and beliefs about the study field, individual or professional experiences, motivation and qualifications to explore the field, and perspectives or theoretical foundations related to education or membership of a profession, are considered the foundational frame of reference upon which the research is designed (Malterud, 2001; Thorne, Kirkham & O'Flynn-Magee, 2004; Tracy, 2010). Sincerity and self-reflexivity therefore challenge the researcher to introspectively assess and declare these factors before beginning the research (Malterud, 2001).

To assist transparency I participated in a "pre-assumptions interview" prior to beginning the interviewing of participants and analysis of the data. The pre-assumptions interview and my reflection on this revealed four main areas that have shaped my research processes, and that have potential to influence my research findings:

1. *Disciplinary perspectives that I hold as a member of the physiotherapy profession*.

Education

Perspectives or theoretical foundations relating to membership of a profession are a foundational frame of reference upon which interpretive description research is designed (Malterud, 2001; Thorne, Kirkham & O'Flynn-Magee, 2004; Tracy, 2010). These professional discipline perspectives can influence the research process and interpretation of the data. Over the past two decades scientific understanding of back pain has increased substantially with a large volume of literature now dedicated to describing biological, psychological, and social features that allow us to better understand the heterogeneity, variation in presentation, and underlying mechanisms for the condition. As a result of this research we have witnessed a paradigm shift towards a broad biopsychosocial model for back pain. However, notwithstanding this paradigm shift and revisions to the curricula of physiotherapy schools in New Zealand to reflect this, the physiotherapy profession in New Zealand has its historical roots in the bio-medical mode of care (Nicholls & Larmer, 2005). As a physiotherapist trained in New Zealand, my perception is that I participated in under-graduate and post-graduate training, and continuing professional development courses, that placed the structural, anatomical, and bio-mechanical model of care at the centre of the evaluative and clinical reasoning process. I am therefore trained to prioritise identifying abnormal tissue pathology and distributions of physical stresses derived from tissue pathology, or abnormal tissue loading created by motor control strategies such as posture/alignment or movement and muscle activation. Many of the treatment approaches to back pain that I have been trained in are directed at non-invasive fault 'correction' focusing on subjectively perceived flawed active or passive structural movements.

Notwithstanding that it is now well established that the bio-mechanical paradigm falls short in explaining the complex clinical picture of pain disability and distress associated with back pain, the disciplinary perspectives I hold as a result of my training have influenced my professional attitudes, beliefs, and treatment approaches to the condition.

Professional associations

I have also been a member of the professional bodies such as the New Zealand Manual Therapy Association ("NZMPA"). The NZMPA has a strong history of promoting method sof care treatments that are focused on the biomechanical model. It also has a strong 'hands-on' philosophy with its foundations in manual techniques such as the delivery of passive or accessory movements to the spinal column. As a member of this professional body, I have been exposed to and influenced by the mechanical diagnosis and therapy principles promoted by New Zealand physiotherapists such as Robin McKenzie and Brian Mulligan. The McKenzie method evaluates symptom responses to repeated mechanical loading and uses this information to allocate patients to different sub-groups for the purpose of matching treatment (McKenzie & May, 2003). It guides therapists towards matching treatments to underlying biomechanical mechanisms or patho-anatomical symptom behaviours (McKenzie & May, 2003). Similarly, I have attended courses to learn the principles of mobilisation with movement "(MWM") promoted by Brian Mulligan. These principles relate back symptoms to minor structural/anatomical positional faults that occur secondary to injury (Pourahmadi et al., 2018). MWM treatments theoretically reduce symptoms by correcting the fault (Mulligan, 2018). Many physiotherapists in New Zealand have received training in either or both of these methods. Again, the perspectives I hold as a result of this training has influenced my professional attitudes, beliefs, and treatment approaches to the condition.

Third party relationships – Accident Compensation Corporation

The perspectives I hold as a member of the physiotherapy profession in New Zealand might also be influenced by the relationship of the profession to the Accident Compensation Corporation ("ACC"). Since 1974 the funding for the treatment of accident-related musculoskeletal conditions in New Zealand has come largely from the ACC (Nicholls, Reid & Larmer, 2009). Several authors suggest that the professions reliance on a single stream funder has helped create a narrower musculoskeletal focus in the delivery of physiotherapy services in New Zealand (Nicholls & Larmer, 2005; Reid & Larmer, 2007). This influence "… has been felt in education, professional organisation and decision making, and …[the]… theoretical and philosophical development of the profession…" (Nicholls & Larmer, 2005, p108; Reid & Larmer, 2007). The ACC's policies, priorities and administrative practices, and the contractual environment between the ACC and private physiotherapy providers, are all important factors influencing the disciplinary perspectives of the physiotherapy profession. Perhaps most importantly, the bio-medical causation framework of the Injury Prevention Rehabilitation and Compensation Act 2001 that governs claimant access to compensation and rehabilitation entitlements under the ACC Scheme plays an important role in the perspectives of the physiotherapy profession in New Zealand. The requirement for symptoms to relate to an accident and identifiable structural patho-anatomical symptom causes, implicitly focus the ACC Scheme on a narrow bio-medical understanding of musculoskeletal disorders. Consequently, the ACC Scheme's focus on structural, anatomical, and biomechanical causes and curative care has influenced the profession to adopt the narrow bio-medical model of back pain that contradicts current biopsychosocial understandings of the condition. As a therapist who worked in private practice for 19-years and operated my own private practice for many of those years, maintaining a relationship with ACC and providing services to ACC claimants under many contracted formats has impacted my attitudes, beliefs, and treatment approaches to the condition.

2. Personal biases or perspectives that I hold as a person who has experienced back pain.

My personal experience with back pain has influenced my attitudes and beliefs towards back pain and also my interest in carrying out this research. To understand how my experience of back pain might influence the research and my clinical practice, it is important to make explicit my own experiences. I first developed back pain playing sport as a 19-year-old. After this episode I continued to experience recurring symptoms with varying degrees of severity and duration. Some episodes were significantly disabling, others less so. During this time my belief was that these symptoms, although inconvenient, were not threatening. They would simply improve with the time and the resumption of activity as soon as I was able. I would often continue to perform activity in the presence of symptoms where the value of performing the activity outweighed the resulting discomfort. I believed back pain to be a normal part of a life but that I was physically vulnerable to episodes of back symptoms during many activities.

My thoughts and beliefs relating to my back symptoms began to change as I progressed through my undergraduate physiotherapy training and during my early years of practice as a physiotherapist. My undergraduate training provided me with insights into the structural, anatomical, and biomechanical factors relating to the spine. My learning experiences caused me to question my understandings of my back symptoms. When symptoms occurred, I started to become more likely to seek help and a better understanding of the causes of my back pain. This led to uneventful imaging and specialist advice. The advice I received reinforced my changing beliefs that my symptoms were related to a deterioration of the structures of my spine, and that the continuation of symptoms during provoking activities would likely result in future disabling pathology. In my early 40's this pattern culminated in an episode of acute back pain with neurological symptoms. This episode was a substantial change in the pattern and resulted in greater disability. Due to the nature and severity of the symptoms a spinal orthopaedic consultation followed. An MRI scan demonstrated an acute lumbar intervertebral disc prolapse with associated nerve root compression. To alleviate symptoms and enable the more rapid resumption of function in the short term, micro-discectomy surgery was performed. The surgery immediately alleviated the acute symptoms and facilitated increased function. In the 10-years that have elapsed since the surgery, the pattern of recurrences of my back symptoms and the pattern of frequency, intensity, and duration have changed. No longer do I experience recurrent disabling symptoms. My tolerances to physical activities have improved.

My personal experience of low back pain therefore is that it is a recurrent and recalcitrant condition that can be successfully managed conservatively over a long period of time. Symptoms occur frequently, but are often of short duration and may be an inevitable consequence of the activities I have engaged in. These experiences informed my belief that for many people with back pain, cure is unlikely, but that symptoms can be successfully managed to minimise long term disability. High levels of function can be maintained in the long-term during periods of both symptom remission and exacerbation. But also, for some people, spinal surgery offers the prospect of reducing acute symptoms when neurological changes are involved. These experiences influence my personal approach to the management of people with back pain in clinical practice. In many situations the advice I provide is the advice I would have valued when I was experiencing symptoms. This often revolves around symptom validation, reassurance that symptoms would resolve, and that activity in the presence of symptoms can continue without risk of further harm. Personally, I have found little value in seeking assistance from health care professionals for my LBP. Tension exists in my clinical practice between my own beliefs about my back pain and how to manage it, and the beliefs of my patients about their back pain and the way they would like their symptoms managed. I see back pain as a normal part of life. This conflicts with the belief of many people I have seen who view the presence of symptoms as more threatening and in need of a cure.

Cognitive dissonance also exists between my personal and my professional beliefs. Professionally I believe in the importance of providing evidence-based care to the people I see with back pain. However, this can also contradict my own experiences. For example, where patients ask my opinion on the value of surgery to alleviate back symptoms, and in particular those resulting from a herniated disc with radiculopathy, my personal experience is inconsistent with contemporary research (Foster et al., 2018). Evidence based clinical guidelines do not recommend a lumbar discectomy for herniated disc with radiculopathy for either acute or persistent low back pain (<6-weeks duration v >12-weeks) (Qaseem et al., 2017; Stochkendahl et al., 2018; UK National Institute for Health and Care Excellence: Low Back Pain Guidelines, 2016). Research suggests that for a herniated disc, early surgery is associated with faster relief of radiculopathy than with initial conservative treatment, but the benefits appear to diminish with longer (> 1-year) follow up (Chou et al, 2009). Spinal decompression surgery is only suggested for radicular pain where non-surgical treatments have been unsuccessful (Qaseem et al., 2017; Stochkendahl et al., 2018; UK National Institute for Health and Care Excellence: Low Back Pain Guidelines, 2016). I therefore frequently provide information/advice to people that rationalises this tension by justifying my/their circumstances as different.

3. Professional experiential biases

My professional experiences treating people with back pain in clinical practice, and also mentoring post-graduate physiotherapy students during my role as a clinical educator, are are important sources of potential bias and influence in my research. My experiences can be broadly discussed under the following headings:

1. Beliefs and expectations, I have observed
2. My personal approach to managing LBP
3. Factors I have encountered that influence clinical encounters
4. Tensions I have encountered

1. Beliefs and expectations, I have observed

As a clinician and as a clinical educator at AUT, I have observed a wide range of beliefs about LBP amongst people with symptoms and therapists. These beliefs often influence expectations for management. For example:

a. People with LBP come to physiotherapy with a broad range of expectations including the desire for a diagnosis, symptom relief, guidance on how they can help themselves, reassurance of the absence of a serious condition, referral for imaging, and manual therapy. The most frequent expectation I encounter is that for a diagnosis-treatment-curative pathway;

b. Often, people have low levels of knowledge about their condition that in turn leads to fear and uncertainty about their prognosis and likelihood of recovery;

c. Many people have strongly held biomedical beliefs towards LBP. This in turn this create the belief that a diagnosis-treatment-curative pathway exists i.e. people expect physiotherapists to diagnose the patho-anatomical cause for their LBP symptoms, and in turn prescribe a matched curative treatment;

d. The beliefs people hold about LBP have been acquired from a range of sources including health care professionals, and are often non-evidence based and unhelpful;

e. Negative beliefs about LBP are also prevalent amongst practicing physiotherapists. In my experience they include the belief that backs are easy to injure, require the protection of strong muscles, and that good posture and correct lifting techniques are necessary to avoid injury. The belief that LBP is associated with tissue damage and that the lumbar spine is vulnerable to injury because it is poorly designed and maladapted for modern life is also common;

f. Many physiotherapists also have a strong bio-medical treatment orientation. This results in their clinical consultations focusing on identifying structural, anatomical, and biomechanical contributors to symptoms. This orientation leads clinicians towards providing treatments, explanations, and advice to people with LBP with bio-medical attributions. For example, diagnosis and treatment are often explained to patients based on hypothesized patho-anatomical abnormalities or bio-mechanical impairments such as ‘muscles strains or joint sprains”, or hypothetical patho-anatomical causes such as ‘instability, joint hypo or hypermobility, joint mal-alignment, or intervertebral disc pathology. Many therapists believe that correcting the identified ‘faults’ is a pre-requisite to symptom resolution and recovery. Treatments such as spinal mobilization therapy for poor inter-segmental mobility or core stabilization exercises for excessive inter-segmental mobility are therefore often prescribed to correct the offending biomedical fault. Symptoms are also often attributed to bio-mechanical stressors such as poor posture or improper lifting technique. Where patients do not respond to this diagnosis-treatment-curative pathway, many therapists conclude they have incorrectly diagnosed the physical pattern, or that something has been missed in the physical examination. They often perform a re-analyse of the physical factors to identify the offending fault. When clinicians are unable to understand or correct these physical factors, they request imaging and refer to specialists to continue the diagnosis-treatment-curative pathway. In my experience many physiotherapists are uncomfortable or refrain from expanding their analysis to include a broader bio-psychosocial perspective as they believe they do not have the skills or knowledge to do so.

2. My personal approach to managing LBP

My personal approach to the management of LBP has been influenced by my experiences treating people with LBP and my continuing professional development. My belief is that LBP is a multi-dimensional condition that is best analysed from a biopsychosocial perspective. Experiences have shown me that focusing exclusively on bio-medical aspects can yield positive clinical outcomes and that structural, anatomical or bio-mechanical factors are significant. However clinical outcomes are inconsistent when focusing exclusively on biomedical factors. For many people with LBP, symptom significance and impact must be interpreted in the context of a broader range of contributing factors to the LBP experience. These factors include personal and circumstantial factors such as predisposition to anxiety, catastrophising, self-efficacy, coping strategies in adversity and stress, previous injury experiences, social influences, and other health co-morbidities. Care plans targeting bio-medical aspects of a person's presentation without taking account of these influences often have inconsistent outcomes. Combined with my experiences as a clinician, my broadening continuing professional development education has led me to reflect on the many aspects of people's presentations that might influence clinical outcomes. My approach to the management of LBP can broadly be described as follows:

a. When seeing people with LBP I prioritise identifying potential red flag or inflammatory conditions that require medical referral. I then follow a framework that attempts to classify the presentation from a multi-dimensional biopsychosocial perspective. I take the time to understand the persons experience of the condition and the influence their symptoms have had on their life. Patients must first and foremost be treated as people with health problems rather than as injured body parts. During the clinical consultation my aim is also to identify and understand key dimensions including patho-anatomical factors, biomechanical contributors, peripheral and/or central nervous system factors, psychosocial, and lifestyle factors. Identifying patient beliefs about the nature of the condition and patient expectations for your respective roles in their care plan is also important. My approach includes using evidence based stratified care models to guide clinical reasoning and sub-group patients in order to provide matched care. This involves utilising prognostic variables i.e. 'Start Back' stratification (Hill et al., 2011), and/or sub-grouping based on MDDT, MSA, or Peter O'Sullivan's Cognitive Functional Therapy principles (Fersum et al., 2013) to identify the multi-dimensional features of the person's presentation. The likelihood of responding to a specific treatment based on clinical prediction rules, and underlying pain mechanisms are also considered. (Reilly & Evans, 2006; Smart et al., 2011). My treatment approach then attempts to match the unique combination of factors influencing the person's LBP experience. This approach is the same for both people with a first-time episode of LBP, or for those with recurrent or persistent symptoms;

b. Meeting expectations and understanding beliefs are an important component of my approach. Therefore, the early identification of patient expectations, and attitudes and beliefs toward their condition are important to my care plans. Unless care is tailored based on these factors, my experience is that the care plan is unlikely to be successful. For example, where people hold strong biomedical beliefs, patient education and the care plan is more likely to be successful when it is bio-medically oriented. Patient beliefs about movement are also an important confounding variable on the value of clinical testing. The results of clinical testing in my experience need to be interpreted in the context of patient beliefs about movement;

c. Early symptom reduction is another important facet of my approach as it is integral to patient engagement with the proposed care plan. Identifying and addressing patho-anatomical and neuro-physiological drivers of symptoms increases confidence to move and assists in reducing psycho-social barriers to recovery. My aim is to try to create an early positive experience with movement that builds patient confidence. Negative experiences undermine patient engagement with rehabilitation and the recovery plan. Positive experiences are also an important educational tool, especially where patients hold strong bio-medical beliefs about the potential dangers or harms associated with movement during an episode of LBP.

3. Factors I have experienced that influence clinical encounters

In my experience many factors influence clinical outcomes. Some of the key factors can be described as follows:

a. The ability to build a confidence based therapeutic relationship is a key factor determining outcomes. This includes establishing trust, building rapport, and fostering an open communication relationship with the person. These factors are integral to the gathering of clinically relevant information and understanding the person and their experience of LBP.

b. A strong therapeutic relationship combined with positive experiences during the care process are effective clinical tools for changing patient beliefs and increasing the likelihood of a successful outcome. Patient experiences during care are an important influence on patient attitudes and beliefs, and influence patient confidence in the therapist and therapeutic plan. For example, providing positive experiences of movement with less pain early in the rehabilitation process is important in gaining patient engagement with further rehabilitation measures;

c. People with LBP present on a continuum with respect to their receptiveness and readiness to actively engage with care. Successful outcomes depend on patient engagement with their care plan. A positive clinical outcome is more likely where the care plan reflects the patient's expectations and the patient is open to or ready to actively engage with it. Where people are unwilling to actively engage with their care plan, are passive in their approach to the management of their condition, or the care plan doesn't reflect the patient's expectations and beliefs, a positive clinical outcome is unlikely.

d. Patient self-efficacy and interest in their condition are also important factors influencing factors. Patient beliefs as to whether they will recover and have the skills, time, and/or support to implement the care plan are very important factors influencing engagement with care. In my experience people who are curious to understand their LBP, and open in the discussion to receiving new information that might contradict their beliefs do better with their care plan. People who are curious and receptive to suggestions for recovery may do better because they are more likely to take ownership of and become actively involved in their own care. However, in my experience curiosity cannot be imposed. In this respect the success or failure of care is highly dependent on the timing of the intervention with respect to the persons readiness to engage.

e. Individual characteristics and responses to adversity play a significant role in clinical outcomes. How individuals respond to adversity is a characteristic that comes to the fore when in pain. Some individuals have limited ability to cope with stress or adversity, present with high levels of anxiety, or a tendency to catastrophise. They might also have a range of other health co-morbidities that influence recovery, have limited social support, or have other significant external stressors in their lives. People with a wide range of additional factors such as these are less likely to respond positively to care. These factors appear to compromise resilience and the capacity to recover from or live through the experience of pain. In my experience, patient self-efficacy is a more important predictor of clinical outcomes than therapist self-efficacy. Therapist self-efficacy cannot compensate for a lack of patient self-efficacy.

f. Things that impact upon my ability to respond to adversity, and cope with other people's concerns, are also factors that are important influences on my clinical behaviours, and possibly also clinical outcomes. For example, work-related stress, fatigue, my health, and significant life external stressors influence my ability to respond to patient needs. These factors impact on my resilience and ability to engage and respond appropriately during clinical consultations. My clinical engagement might also be affected by the patient's readiness to actively engage with the proposed care plan, and patient beliefs that might conflict with my own. In these circumstances it can be difficult to provide effective care.

4. Tensions I have encountered

I have experienced many forms of tension in my clinical experiences with people with LBP. For example:

a. Tension exist in my clinical practice between providing care for people that follows evidence-based guidelines for the management of LBP, and the persons or my own beliefs and expectations. In my experience the 'best management plan' for a person reflects a broad range of influences including evidence based recommendations based on the clinical presentation, the persons own beliefs and expectations for their treatment and their previous personal experiences of care, and my own beliefs on optimal management based on my knowledge and experiences. However matching care in this way can lead to the utilisation of non-evidence-based care where for example the person holds non evidence-based beliefs about the 'cause and cure' for LBP. It can create a tension in my practice as the matched care I provide may be at odds with my own beliefs, knowledge, and understanding of the condition. I have found that where patient believe that structural causes can and must be addressed, then tangible validation of those beliefs is a pre-requisite to change and the care plan needs to be framed bio-medically. It is only when tangible validation is no longer possible and cure avenues are exhausted, that patients with bio-medical beliefs may become ready to change and explore alternative care pathways. In practice I often defer to patient beliefs and expectations to avoid conflict and maintain the confidence based therapeutic relationship. However, although I believe that care provided in this way is effective at avoiding conflict, and potentially improves patient outcomes through collaboration/co-operation, it can reinforce erroneous patient beliefs. For example, providing patients with bio-medical explanations and treatments that reflect patient beliefs can contribute to iatrogenic disability by reinforcing unhelpful bio-medicalised views about LBP and reinforce an unhelpful focus on a diagnosis-treatment-cure pathway.

b. In my experience tensions are also created in clinical encounters by the influence of the health system. ACC policy, priorities, administrative and funding practices, and the contractual environment between ACC and private physiotherapy providers, are factors that influence the relationship between physiotherapists and people with LBP. The Injury Prevention Rehabilitation and Compensation Act 2001 ("the Act") requires physiotherapists to diagnose LBP complaints bio-medically and directs therapists towards providing treatments, explanations, and advice to patients with bio-medical attributions. This creates tension in clinical practice because I am cognizant that the provision of bio-medical care can negatively influence patient outcomes, patient symptom appraisal, and the patient's prognostic expectations. For example, many New Zealanders are aware of the need to identify a structural 'injury' and a specific incident or accident that cause the injury to access cover under the ACC Scheme. This is problematic when LBP can only be attributed to specific patho-anatomical sources in 8-15% of cases (Deyo, 1988). Tension occurs when people know they may be denied ACC cover if their physiotherapist is unable to identify their 'physical injury'. It can also create tension by driving requests for unnecessary 'diagnostic' imaging from patients. Similarly, the necessity to establish an 'accident' and link this temporally with the patho-anatomical injury is also a source of tension. One third of patients with an acute episode of LBP cannot recall a specific incident or accident when a physical injury might have occurred (Forster et al., 2017; Parreira, et al., 2015; Steffens, et al., 2015). To avoid these conflicts and establish a confidence based therapeutic relationship, there is pressure to meet patient expectations by validating the causation and biomedical injury, and by offering curative care with bio-medical attributions.

c. These tensions are compounded where people see more than one health care provider during an episode of LBP. On many occasions it is difficult to rationalise the conflicting and disparate advice and explanations provided by other health care providers to people with LBP, and it is an additional source of frustration and confusion for patients. This is problematic in New Zealand where physiotherapists act as primary care providers, but there are few limitations on people consulting with 11-1Non-specific BPBmay Wintec RotokaurR

d. multiple health care professionals during an episode of LBP. Many people commonly see more than one health care professional, including their General Practitioner, and on many occasions are referred for inappropriate imaging or to surgeons or other pain medicine specialists by someone other than their physiotherapist. It is a challenging situation as people who see more than one health care professional often receive multiple conflicting diagnostic and treatment approaches for their symptoms. In addition to being frustrating for both myself and my patients, in my experience this can undermine the confidence based therapeutic relationship I am attempting to establish. It also increases uncertainty and anxiety about symptoms as people are confused about which health care provider they should believe.

4. *Educational biases I might now hold as a result of performing research into the factors that influence the physiotherapy management of back pain.*

In ID, the research is located within the field of existing knowledge so that findings are constructed based on thoughtful linkages to the work of others (Mitchell & Cody, 1993). Therefore, the theoretical frame of reference upon which ID research is designed is formulated during the process of conducting the literature review (Thorne, Kirkham & O'Flynn-Magee, 2004). The literature review identifies existing knowledge about the subject and assists the researcher to position themselves and the study in relation to this knowledge (Malterud, 2001; Thorne, Kirkham & O'Flynn-Magee, 2004; Tracy, 2010). The literature review I performed identified no previous research exploring the LBP management practices of private physiotherapists in New Zealand. There are also no studies exploring clinical encounters between physiotherapists and people with LBP or identifying factors that influence physiotherapist decision making practices. However, research conducted outside New Zealand has explored and identified a wide range of factors that influence the LBP management practices of physiotherapists. This literature forms the scaffold for the research and exerts a strong influence over my pre-study beliefs and conceptions about the subject. The main findings of the literature review can be briefly summarised under the headings "Physiotherapy management practices" and "Factors influencing physiotherapy decision making practices".

1. *Physiotherapist management practices*

Research carried out overseas identifies that physiotherapists have a wide range of care practices in relation to LBP (Hendricks et al. 2013; Maher et al., 2017). However, there is conflicting evidence for the clinical utility and cost-effectiveness of many of the treatments physiotherapists utilize, and there is no evidence suggesting any particular treatment method is effective at improving clinical outcomes for all patients (Foster, 2011; Foster et al., 2013; Maher et al., 2017; Howard-Wilsher et al., 2016; Lin et al., 2011; Micheleff et al., 2012). The research also suggests that adherence to evidence based guidelines for care is poor, and that highly variable non-evidence based treatment practices are common (Cote et al., 2009; Daykin & Richardson, 2004; Gardener et al., 2017; Harting et al., 2009; Parr & May, 2014; Pincus et al., 2006; Poitras et al., 2012; Slade et al., 2016). Unfortunately the research identifies that where physiotherapists provide disparate advice and non-evidence based care, it results in inconsistent clinical outcomes for people with LBP (Cote et al., 2009; Darlow et al., 2012; Daykin & Richardson, 2004; Davies et al., 2014; Hanney et al., 2016; Harting et al., 2009; Hendricks et al., 2013; Josephson et al., 2013; Mafi et al., 2013; Parr & May, 2014; Pincus et al., 2006; Poitras et al., 2012; Slade et al., 2016).

2. *Factors influencing physiotherapy decision making practices*

Research carried out in other health settings identifies four main factors influencing the decision-making practices of physiotherapists:

a. The treatment orientation, attitudes, and beliefs of the physiotherapist (Darlow et al., 2012; Darlow et al., 2013; Darlow, 2016; Daykin & Richardson, 2004; Gardener et al., 2017);
b. The treatment orientation, attitudes, and beliefs of the person with LBP (Corbett et al., 2009; Gardener et al., 2017);
c. The person's expectations for the consultation (Verbeek et al., 2004; Walker et al., 1999); and,
d. The desire of the physiotherapist to maintain a confidence-based therapeutic relationship (Gardener et al., 2017; Smeets et al., 2008; Verbeek et al., 2004; Walker et al., 1999)

a. The treatment orientation, attitudes, and beliefs of the physiotherapist

Research carried out in other health settings has identified that the clinical care and decision-making practices of physiotherapists is strongly influenced by their treatment orientation, attitudes, and beliefs towards LBP (Darlow, 2016; Gardener et al., 2017). Where physiotherapists hold a bio-medical treatment orientation and believes that LBP is a structural, patho-anatomical, or bio-mechanical problem, this influences their treatment choices, explanations, education, and advice (Gardener et al. 2017). Where communications between physiotherapists and people with LBP are based on a bio-medical treatment orientation, people bias their attention towards this information and dismiss more positive or reassuring information (Darlow et al., 2016). The communication might support pre-existing patient attitudes and beliefs that symptoms are serious with a likely poor outcome and influence clinical outcomes by guiding the person's understanding, symptom appraisal, and belief about the safety of activity engagement (Darlow et al., 2015; Darlow, 2016; Gardener et al., 2017; Nijs et al., 2016). For example, high levels of fear avoidance beliefs regarding the safety of activity during an episode of LBP among physiotherapists are associated with high levels of fear avoidance beliefs amongst their patients (Poiraudeau et al 2006; Coudreye et al., 2006; Darlow et al., 2012; Darlow et al., 2013; Daykin & Richardson, 2004; Dean et al., 2005). Research therefore suggests this can contribute towards long term patient iatrogenic disability by reinforcing unhelpful patient beliefs and promoting passive rather than active care strategies (Daykin & Richardson, 2004; Nijs et al., 2013; Zusman, 2013).

b. The treatment orientation, attitudes, and beliefs of the person with LBP

Similarly, the treatment orientation, attitudes, and beliefs of the person with LBP have been shown to influence the clinical practices of physiotherapists (Corbett et al., 2009; Gardener et al., 2017; Verbeek et al., 2004; Walker et al., 1999). It is well known in many health settings including New Zealand, that negative pre-existing community beliefs about LBP and backs in general are prevalent NZ (Darlow et al., 2014; Goubert et al., 2004; Gross et al., 2006; Klaber et al., 2000; Munigangaiah et al., 2016). This includes the belief that LBP is associated with anatomical or structural damage, and that backs are vulnerable to overuse and injury (Darlow et al., 2015). Where people hold these strong bio-medical beliefs, they often present with higher levels of disability and negative recovery expectations (Briggs et al., 2010; Darlow et al., 2015; Lin et al., 2013 Sloan et al., 2010; Smeets et al., 2008). Research has shown that these factors influence physiotherapist practices as many physiotherapists are aware that if their approach to care does not reflect the person's treatment orientation or beliefs, it is unlikely to be successful (Briggs et al., 2010; Darlow et al., 2015; Lin et al., 2013; Nicklas et al. 2010; Sloan et al., 2010; Smeets et al., 2008).

Consultation expectations

In addition to attitudes and beliefs, the person's expectations for care influence physiotherapist decision-making and management practices (Verbeek et al., 2004; Walker et al., 1999). Research has demonstrated that when people consult with a physiotherapist, they expect to have a thorough physical examination, receive an accurate diagnosis and reassurance, be provided information and instruction, be given manual therapy that provides pain relief, and be referred for imaging i.e. X-rays and to a specialist (Bunzli et al., 2013; Dima et al., 2013; Froud et al., 2014; Mac Neela et al., 2015; Snelgrove et al., 2013; Verbeek et al., 2004). Dissatisfaction with the consultation can result when they do not receive a diagnosis, believe the diagnosis is based on an inadequate investigation, or the information they receive is inconsistent with the advice of other health professionals (Anderson et al., 2012; Chou et al. 2018; Mac Neella et al., 2015; Rhodes et al., 1999; Snelgrove et al., 2013; Slade et al., 2009; Verbeek et al., 2004). They are also likely to be dissatisfied if the diagnosis or information they are provided conflicts with their underlying treatment orientation or beliefs about their condition (Rhodes et al., 1999).

Maintenance of the confidence-based therapeutic relationship

Research has also shown that the maintenance of a confidence-based therapeutic relationship between the physiotherapist and the person is a very important influence on clinical outcomes (Verbeek et al., 2004; Walker et al., 1999). It is well established that person centered approaches that consider the person's beliefs and attitudes are more effective at facilitating self-management, patient satisfaction, and improving care improved outcomes (Fullen et al., 2008; Gardener et al., 2015; Gardener et al., 2016). However, clinical studies suggest that many physiotherapists experience a conflict or tension between providing evidence-based care interventions and providing bio-medical treatment or advice aligned with people's beliefs and expectations (Allegretti et al., 2010; Corbett et al., 2009; Gardener et al., 2017; Jeffrey & Foster 2012) In order to preserve the confidence-based relationship with people, physiotherapists often provide care that aligns with the persons beliefs and expectations to avoid this conflict (Gardener et al., 2017).

Conclusion

To strengthen the sincerity of my research and the research findings, it is important that I make transparent the subjective biases, pre-conceptions, and theoretical frame of reference that I hold at the outset of the study. This enables readers of my research to judge for themselves how this might influence the research processes or my interpretation of the data. In this chapter I have attempted to be transparent about my pre-conceptions including the perspectives I might hold as a member of the physiotherapy profession in New Zealand, the personal biases I hold as a person who has had LBP, the professional biases I may have from my experiences as a clinician and clinical educator of post-graduate physiotherapists, and the bias that I may have acquired conducting a literature review to scaffold my research. I am not seeking to eliminate these biases and pre-conceptions. The danger would be failing to acknowledge and declare them (Malterud, 2001). Malterud (2001) suggests clarification and declaration of the standpoints of the researcher, instead of denial or hiding of the frame of reference, enhances intersubjectivity in qualitative inquiry (Malterud 2001 p 486). Making explicit these factors represent a beginning point for my inquiry, and these assumptions and pre-conceptions will be challenged and refined as the research progresses.

Appendix 6: Participant recruitment advertisement

TE WĀNANGA ARONUI O TĀMAKI MAKAU RAU

Research Project

Exploring the views of physiotherapists and people with low back pain in New Zealand to find out what influence outcomes?

Low back pain is a common health problem in New Zealand. Many people see a physiotherapist to help manage their symptoms. We would like to talk to physiotherapists about their experiences with people with back pain to find out what factors they consider are important when making treatment decisions, and what they think helps or hinders the recovery of people with back pain.

We are hoping to capture a wide range of opinions on this topic so we are hoping to talk to physiotherapists who have a range of experience treating back pain, and from a variety of backgrounds and practice situations.

We hope our findings will provide insights into ways that we can improve the clinical practices of physiotherapists and improves outcomes for people with back pain in NZ.

Please contact the researcher to learn more about this project.

RESEARCH TEAM:

Primary Researcher	Steven Ellery	steve@franklinphysio.co.nz	09 237 1080
Researcher	Prof. Duncan Reid	Duncan.reid@aut.ac.nz	09 921 9999 ext
Researcher	Dr. Steve White	st eve.white@aut.ac.nz	09 921 9999 ext
Researcher	Assoc Prof Nicola Kayes	nicola.kayes@aut.ac.nz	09 921 9999 ext

Appendix 7: Study information sheet

Exploring the experiences and perspectives of physiotherapists and people with low back pain in New Zealand to describe factors that influence low back pain clinical outcomes.

Physiotherapist Participant Information Sheet

4th December 2018

You are invited to take part in research aiming to understand the factors that influence the practices of physiotherapists and clinical outcomes for people with low back pain in New Zealand.

This information sheet will explain the research study. We appreciate you taking the time to read this material.

Please feel free to ask the primary researcher, or any other member of the research team, any questions you might have about the study.

WHAT IS THE PURPOSE OF THIS STUDY?

Low back pain is a very common health problem in New Zealand and many people with this condition seek assistance from a physiotherapist to help manage their symptoms. Physiotherapists are therefore in a strong position to influence clinical outcomes. However, little is known about factors that physiotherapists consider when making treatment decisions, or the factors that are important to clinical outcomes. The purpose of this research is to talk to physiotherapist to find out what factors they consider are important when making their treatment decisions, and what they think helps or hinders the recovery of people with low back pain. We would also like to talk to people with low back pain about their experiences with physiotherapists to explore what they think was helpful or hindered their recovery.

This study is being carried out as part of the primary researcher's Doctor of Health Science qualification at AUT University. The findings of the research will be written up in a thesis and may be submitted for publication in professional journals, used in academic publication, or presented at conferences

HOW WILL THIS STUDY HELP?

This study will provide insights into the factors that influence low back pain management practices, and how to recognize and meet the needs of people with this condition. You may find it beneficial to reflect on your experiences of treating people with low back pain and consider the factors that in your experience impact on clinical decision-making and patient outcomes. This study is an opportunity to contribute your perspectives and participate in research that will provide information that may assist in improving the clinical practices of physiotherapists and outcomes for people with low back pain in New Zealand.

The wider New Zealand community may also benefit from this research as improving patient outcomes may decrease the costs associated with managing low back pain on the New Zealand health system. It might also provide information to funders of health care services in New Zealand such as the ACC as to the factors that are important in clinical encounters, potentially offering new insight into how resources should be applied to improve clinical outcomes.

WHO CAN TAKE PART?

We are inviting physiotherapists who work in a private physiotherapy practice, hold a current New Zealand practicing certificate, and see patients with LBP to take part in the study. You have been invited as you may be able to contribute valuable insights to the study. We want to capture a wide range of opinions and perspectives on this topic from physiotherapists with a broad range of experiences.

If you are interested in taking part you will initially be screened by telephone by the primary researcher to ensure you meet the eligibility criteria and that we do not already have enough participants with similar background to your own. If you have participated in a clinical placement at the AUT Akoranga Integrated Health Musculoskeletal Physiotherapy Clinic while the primary researcher was a clinical educator at this facility you cannot participate in the study.

WHAT HAPPENS IN THE STUDY?

If you take part, you will be invited to participate in an interview with the primary researcher. This is likely to last up to 60-minutes. The interview will be held at your place of work at a time that is convenient for you. If your place of work is not convenient then it can be held at another venue that may be more suitable including either your home or at AUT. During the interview you will be asked a series of questions that allow you to explore and reflect on your experiences of treating people with low back pain and factors that in your experience impact on clinical decision-making and patient outcomes.

WHAT ARE THE COSTS OF TAKING PART?

There will not be any cost to you except your time. If you need to travel to a venue in Auckland for the purpose of being interviewed, you will receive a petrol voucher to reimburse you for this cost.

WHAT ARE THE RISKS OF TAKING PART?

There should not be any risk to you from taking part in this study. We will make all possible effort to ensure that your views are respected throughout the discussion. You can choose not to answer any questions you do not feel comfortable answering and choose to cease your involvement in the interview at any time.

Please be aware that if information is disclosed about clinical practices that have caused harm or place patients at risk of harm, we may be obligated to disclose this to the Physiotherapy Board of New Zealand or Health and Disability Commissioner.

HOW WILL YOUR PRIVACY BE PROTECTED?

Your interview will be recorded. This recording and all other information that you provide will remain strictly confidential. Only the primary researcher and members of the research team will have access to it. All electronic data will be stored in password protected files and any paper information stored in a locked filing cabinet. This data will be held for a minimum period of six-years after which it will be destroyed. No material that could personally identify you will be used in any reports from this study.

HOW DO YOU AGREE TO PARTICIPATE IN THE RESEARCH?

If you are eligible and you would like to take part in this study, you can contact any member of the research team to advise your interest or request further information. You will then be telephoned by the primary researcher to discuss your participation. If you are suitable, either an interview time will be arranged, or if you would like more time to think about it, a time made for a follow up telephone call approximately one week later.

Before participating you will be asked to sign a Consent Form. Please be aware that your participation in this research is voluntary (it is your choice). You may withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once analysis of the data has begun it may no longer be possible to remove your data.

WILL YOU RECEIVE FEEDBACK ON THE RESULTS OF THIS RESEARCH?

If you would like to receive a summary of our findings you can indicate this on the Consent Form and provide an email address where these can be sent at the end of the study.

WHAT DO I DO IF I HAVE CONCERNS ABOUT THIS RESEARCH?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor:

Prof Duncan Reid	Duncan.reid @aut.ac.nz	09 921 9999 ext

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC:

Kate O'Connor	ethics@aut.ac.nz	09 921 9999 ext 6038

WHO DO I CONTACT FOR FURTHER INFORMATION ABOUT THIS RESEARCH?

If you would like more information about this research, please feel free to contact one of the research team. Please keep a copy of this information sheet for future reference.

RESEARCH TEAM:

Primary Researcher	**Steven Ellery**	**steve@franklinphysio.co.nz**	**09 237 1080**
Project Supervisor	**Prof. Duncan Reid**	**Duncan.reid@aut.ac.nz**	**09 921 9999 ext**
Researcher	**Dr. Steve White**	**steve.white@aut.ac.nz**	**09 921 9999 ext**
Researcher	**Assoc Prof Nicola Kayes**	**nicola.kayes@aut.ac.nz**	**09 921 9999 ext**

Approved by the Auckland University of Technology Ethics Committee on *type the date final ethics approval was granted*, AUTEC Reference number *type the reference number*.

Appendix 8: Participant consent and demographic form

AUT
TE WĀNANGA ARONUI
O TĀMAKI MAKAU RAU

Interview Consent Form

Exploring the experiences and perspectives of physiotherapists and people with low back pain in New Zealand to describe factors that influence low back pain clinical outcomes.

Project Supervisor: Professor Duncan Reid

Researcher: Steven Ellery

By signing below I acknowledge that:

○ I have read and understood the information provided about this research project in the Information Sheet dated 4th December 2018.

○ I have had an opportunity to ask questions and to have them answered.

○ I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.

○ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.

○ I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once analysis of the data has begun, removal of my data may not be possible.

○ I wish to receive a summary of the research findings (please tick one and if yes provide your email details below):

Yes○ No○

I agree to take part in this research

Name:

Signature:

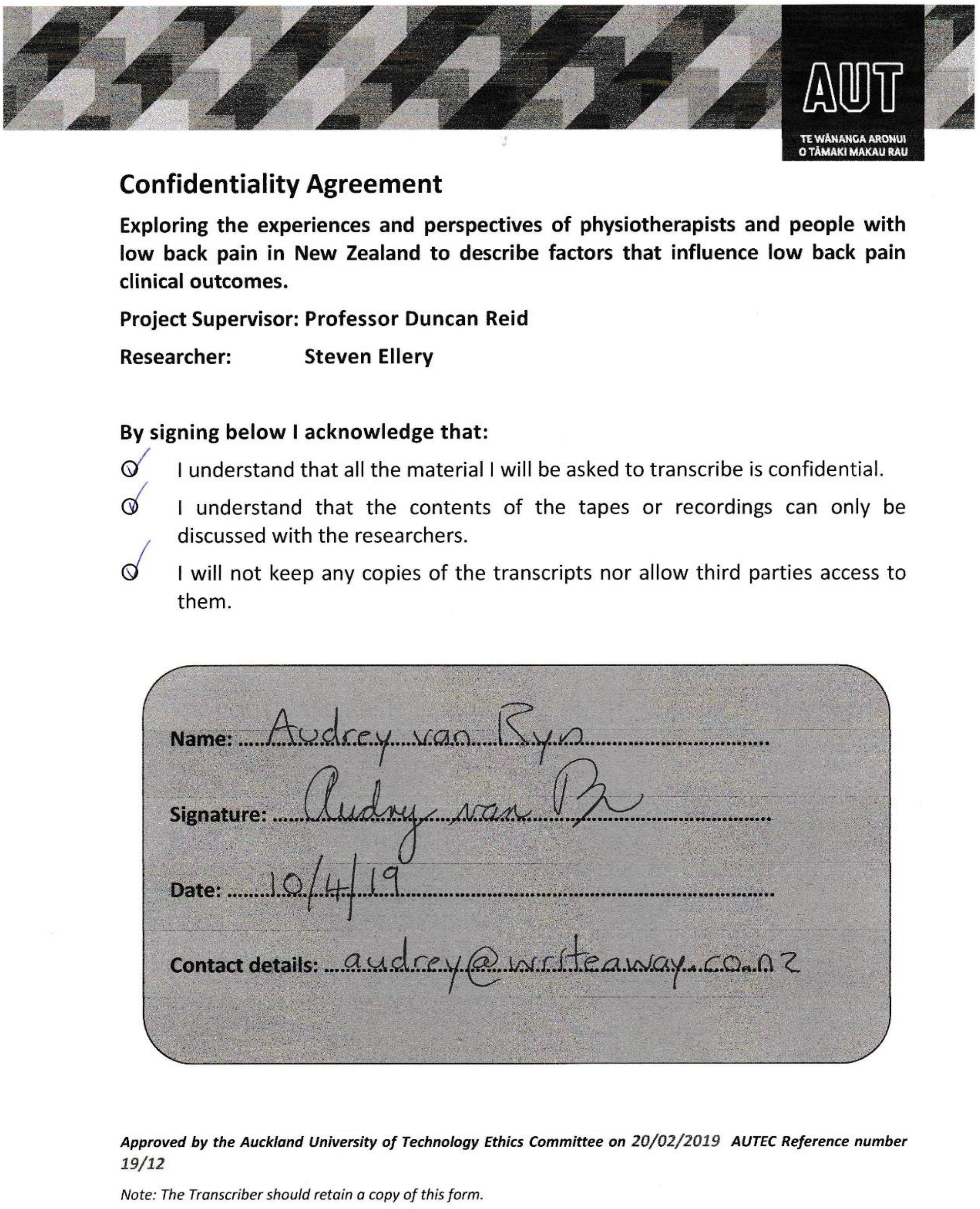
Date:

Email details:

***Approved by the Auckland University of Technology Ethics Committee on** type the date on which the final approval was granted **AUTEC Reference number** type the AUTEC reference number*

Note: The Participant should retain a copy of this form.

Appendix 9: Transcription confidentiality agreement



AUT
TE WĀNANGA ARONUI
O TĀMAKI MAKAU RAU

Confidentiality Agreement

Exploring the experiences and perspectives of physiotherapists and people with low back pain in New Zealand to describe factors that influence low back pain clinical outcomes.

Project Supervisor: Professor Duncan Reid

Researcher: Steven Ellery

By signing below I acknowledge that:

- ☑ I understand that all the material I will be asked to transcribe is confidential.
- ☑ I understand that the contents of the tapes or recordings can only be discussed with the researchers.
- ☑ I will not keep any copies of the transcripts nor allow third parties access to them.

Name: Audrey van Ryn

Signature: Audry van Ry

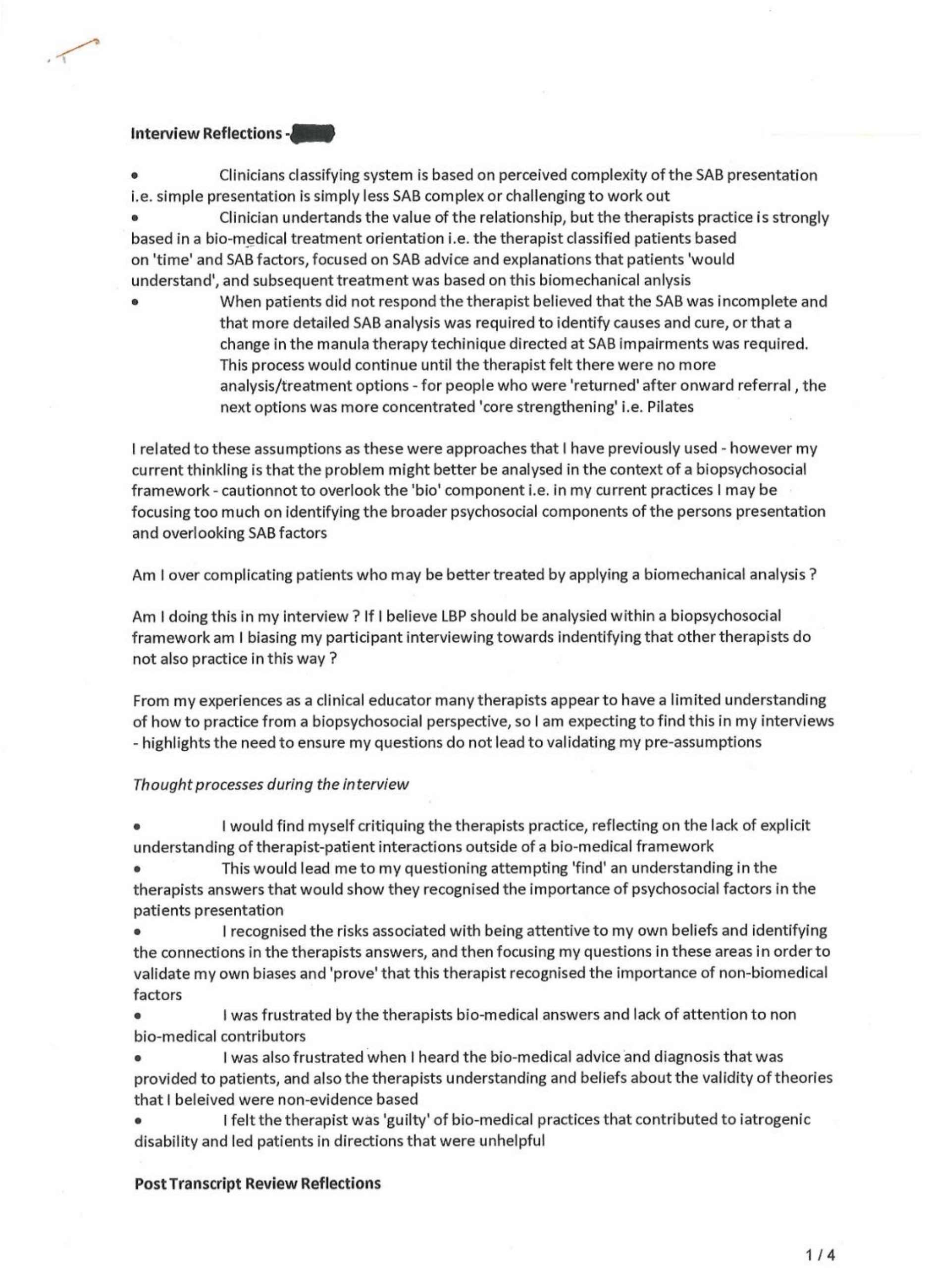
Date: 10/4/19

Contact details: audrey@writeaway.co.nz

Approved by the Auckland University of Technology Ethics Committee on 20/02/2019 *AUTEC Reference number* 19/12

Note: The Transcriber should retain a copy of this form.

Appendix 10: Sample post interview reflective memo



Interview Reflections -[redacted]

- Clinicians classifying system is based on perceived complexity of the SAB presentation i.e. simple presentation is simply less SAB complex or challenging to work out
- Clinician undertands the value of the relationship, but the therapists practice is strongly based in a bio-medical treatment orientation i.e. the therapist classified patients based on 'time' and SAB factors, focused on SAB advice and explanations that patients 'would understand', and subsequent treatment was based on this biomechanical anlysis
- When patients did not respond the therapist believed that the SAB was incomplete and that more detailed SAB analysis was required to identify causes and cure, or that a change in the manula therapy techinique directed at SAB impairments was required. This process would continue until the therapist felt there were no more analysis/treatment options - for people who were 'returned' after onward referral , the next options was more concentrated 'core strengthening' i.e. Pilates

I related to these assumptions as these were approaches that I have previously used - however my current thinkling is that the problem might better be analysed in the context of a biopsychosocial framework - cautionnot to overlook the 'bio' component i.e. in my current practices I may be focusing too much on identifying the broader psychosocial components of the persons presentation and overlooking SAB factors

Am I over complicating patients who may be better treated by applying a biomechanical analysis ?

Am I doing this in my interview ? If I believe LBP should be analysied within a biopsychosocial framework am I biasing my participant interviewing towards indentifying that other therapists do not also practice in this way ?

From my experiences as a clinical educator many therapists appear to have a limited understanding of how to practice from a biopsychosocial perspective, so I am expecting to find this in my interviews - highlights the need to ensure my questions do not lead to validating my pre-assumptions

Thought processes during the interview

- I would find myself critiquing the therapists practice, reflecting on the lack of explicit understanding of therapist-patient interactions outside of a bio-medical framework
- This would lead me to my questioning attempting 'find' an understanding in the therapists answers that would show they recognised the importance of psychosocial factors in the patients presentation
- I recognised the risks associated with being attentive to my own beliefs and identifying the connections in the therapists answers, and then focusing my questions in these areas in order to validate my own biases and 'prove' that this therapist recognised the importance of non-biomedical factors
- I was frustrated by the therapists bio-medical answers and lack of attention to non bio-medical contributors
- I was also frustrated when I heard the bio-medical advice and diagnosis that was provided to patients, and also the therapists understanding and beliefs about the validity of theories that I beleived were non-evidence based
- I felt the therapist was 'guilty' of bio-medical practices that contributed to iatrogenic disability and led patients in directions that were unhelpful

Post Transcript Review Reflections

Classification system

- initial impressions based on age, gender, occupations leads to making assumptions about condition
- presentation classification - staging i.e. acute/simple or chronic, weak muscles
- acute/simple - no Hx LBP, mechanical onset, low level disability, expectation passive care
- complex/chronic - more important to understand expectations - also more defined by bio-medical factors
- classify/pattern recognition to guide Rx - education, pain relief stratgiees, types of exercises provided
- using responses to questions, body language, inquistiveness, engagement to classify
- lower levels of engagement Rx differently - manual therapy with greater or lesser emphasis on education
-

Importance of identifying **patient expectations** reinforced

- pain relief, understanding and knowledge, hands on care
- do different classifications have different expectations?
- patients value "time and understanding"
- importance of the patients understanding

Tension -

- therapist perception patients dissatisfied if dont provide hands on care - just talking not doing anything
- conflicting therapist/patient expectations - therapy very therapist centric approach - where do the patients views matter - does anyone describe this ?
- therapists belief reinforced by experiences that approach she takes works - "high retention rate" - not sureif this represents better clinical outcomes ?
- relationship building viewed as part of the job
- ACC as potential barrier to engagement - patient negativity source of influence on outcome ?

Frustration

- people who dont follow the plan - give them strategies and poor outcomes from low engagement
- non-responsive patient source of frustration

Strategies

- bio-medical education based around patho-anatomical descriptions
- build confidence based relationship - project "certainty and confidence" - be accountable for ther plan and action it (follow through), rapport
- increase engagement in lifestyle changes
- patient responses to Ax or Rx guides level of education and type of therapy = reactive level of engagement defining approaches
- recognising importance of patient understanding
- matching Rx to presentations based on classifications
- exploring and identifying expectations - meeting expectations
- providing opportunity to "be heard" - listening - validate their experience - acknowledge perspectives "be there to listen, acknowledge, and help them find a solution"
- finding the person's 'reason to get better' - patient centered goal setting

- do 'education better' - explaining the 'why' for the Rx plan, building realistic expectations
- individualising the Rx approach - means tailoring Rx approach basedon Ax and response to Rx - matched care = adapting components of education, MT, exercises to each individual
- For the patients who don't respond - the "bigger bio-mechanical assessment" ..the referral for X-rays... "feel like Im missing something" ... more Rx different Rx different Ax
- avoid language that creates fear avoidance
- identifying and addressing psychosocial stressors
- empowering

Negative/Challenging Factors

- lack of engagement - engagement seen as the "patients responsibility' not the therapists to work out how to create engagement
- psychosocial factors
- repetitive biomechanical loading factors
- non-responsive patients

Therapist Beliefs/Specific factors

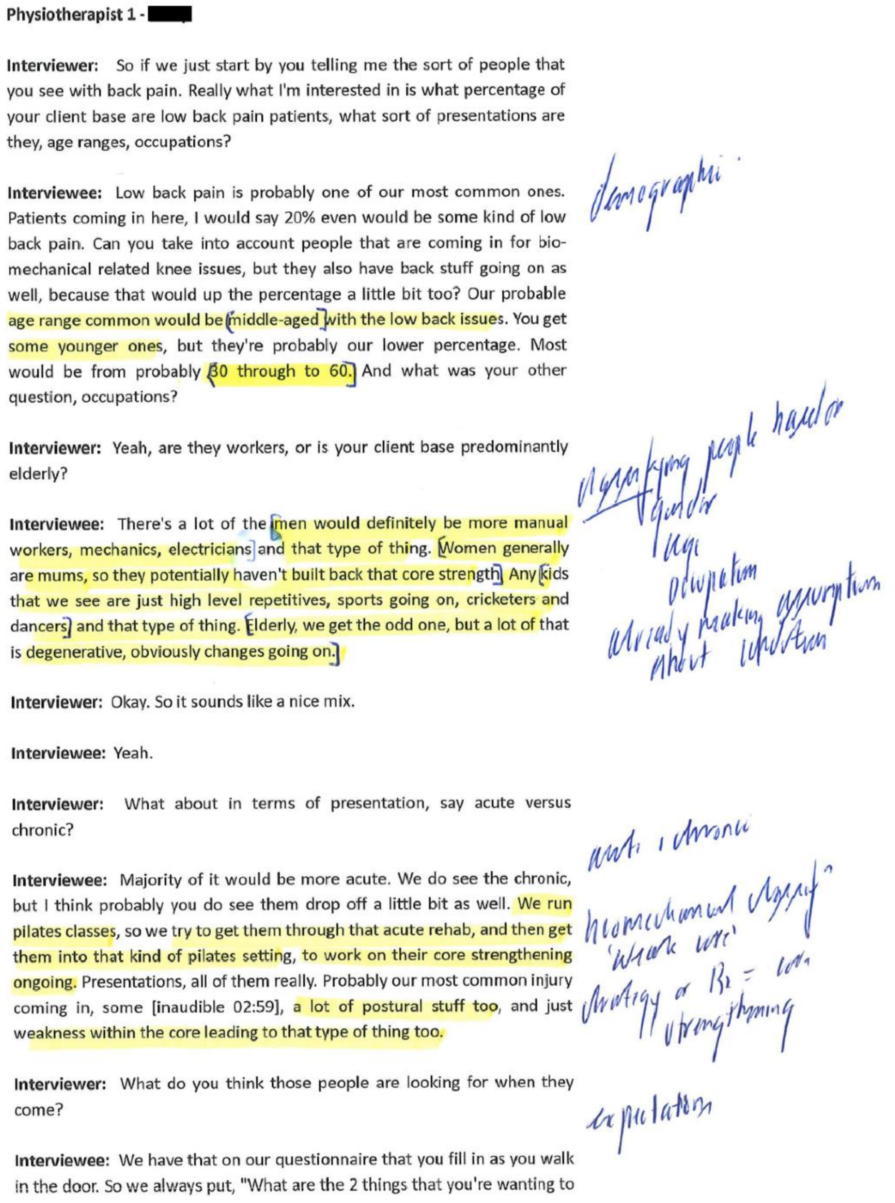
- confidence to manage is gained by experience - seeing patients, trialling, experiencing different results from different approaches etc.
- amount of training influences available "resources" i.e. treatment options
- formulaic Rx approaches = educate/advice, MT, exercises
- positive outcomes depenmdant on patients understanding what the therapist is trying to acheive !
- outcomes depend on a relationship basedon trust, rapport, integrity

Summary of Key "Interpretations"

- **<u>Classifying</u> patients is important way therapists manage people with LBP - complexity of the classification system depends largely on the experience/knowledge of the therapist - built through experiences i.e. experiences with patients, trialling different approaches - seen as an important way to identify the type of rehabilitation people receive and importance in outcomes**
- **Experienced therapist believes <u>understanding patient expectations</u> important factor in success of clinical outcomes - expectations a key factor in deciding classification**
- **<u>Engagement</u> another important factor - therapist uses range of strategies to build positive engagement**
- **Types of <u>strategies</u> used by therapists to build engagement vary**
    - **<u>building relationships</u> Successful outcomes built on a relationship based on confidence, trust, rapport**
    - **Education therapist centric- providing answers patient needs to accept them - paternalistic**
- **Absence of engagement/non-responsive seen as the '<u>patients fault'</u> without recognising own role in failure to enagage with the patient**
- **Perspectives on the clinical encounter has strong bio-medical foundation but there is also a recognition of the strong influence psychosocial factors play**
- **Formulaic management approaches - Relnp/Ax/Classify/Match Rx**
- **Therapist perception clinical outcomes highly dependant on <u>patient specific factors</u> ... little recognition of the role understanding of the patient's perspectives -**

- **I will lead the way rather than we walk this journey together**

Appendix 11: Sample annotated interview transcript



Physiotherapist 1 - [redacted]

Interviewer: So if we just start by you telling me the sort of people that you see with back pain. Really what I'm interested in is what percentage of your client base are low back pain patients, what sort of presentations are they, age ranges, occupations?

Interviewee: Low back pain is probably one of our most common ones. Patients coming in here, I would say 20% even would be some kind of low back pain. Can you take into account people that are coming in for bio-mechanical related knee issues, but they also have back stuff going on as well, because that would up the percentage a little bit too? Our probable age range common would be [middle-aged] with the low back issues. You get some younger ones, but they're probably our lower percentage. Most would be from probably [30 through to 60.] And what was your other question, occupations?

demographic

Interviewer: Yeah, are they workers, or is your client base predominantly elderly?

Interviewee: There's a lot of the [men would definitely be more manual workers, mechanics, electricians] and that type of thing. [Women generally are mums, so they potentially haven't built back that core strength] Any [kids that we see are just high level repetitives, sports going on, cricketers and dancers] and that type of thing. [Elderly, we get the odd one, but a lot of that is degenerative, obviously changes going on.]

classifying people based on
gender
age
occupation
already making assumption
about condition

Interviewer: Okay. So it sounds like a nice mix.

Interviewee: Yeah.

Interviewer: What about in terms of presentation, say acute versus chronic?

Interviewee: Majority of it would be more acute. We do see the chronic, but I think probably you do see them drop off a little bit as well. We run pilates classes, so we try to get them through that acute rehab, and then get them into that kind of pilates setting, to work on their core strengthening ongoing. Presentations, all of them really. Probably our most common injury coming in, some [inaudible 02:59], a lot of postural stuff too, and just weakness within the core leading to that type of thing too.

acute / chronic

biomechanical classification
'weak core'
strategy or Rx = core
strengthening

Interviewer: What do you think those people are looking for when they come?

expectation

Interviewee: We have that on our questionnaire that you fill in as you walk in the door. So we always put, "What are the 2 things that you're wanting to get out of coming here?". So a lot of it is pain relief, that's what's limiting their day-to-day type activities. And a lot of them it's just education, actually knowing and understanding what is going on. Some people might write a specific – be able to get back doing whatever it is that they're limited from because of their back pain. But I think the big things would be to know what's going on, and getting the pain down, or gone.

expectation:
(1) pain relief
(2) understanding / knowledge

Interviewer: So, knowing and pain relief?

Interviewee: Yeah.

Interviewer: What can you tell me about the approach that you take with these people?

Interviewee: It depends a lot on where they're at, what stage they're at. I think people with no back pain previously, and they've twisted awkwardly for a netball intercept, or something like that, and it's really acute. They've come in, they seem pretty straightforward, and you just go through your normal subjective, get out of them what's actually going on with them. The why, obviously, of what they're wanting to get out of physio. Go through all the objective tests, and then do the treatment. So, treatment might be a bit more based around improving their movement patterns that they're presenting on the day. Getting rid of the consequent things that have started up from there – muscle spasm, or whatever it is. And then making sure that they're going home with stretches or exercises to keep maintaining what you've actually done within in the clinical setting. Always high education level, because obviously you've got a half an hour session with them, and they have 23½ other hours outside of there. So if you do your bit and they go away and they're sitting wrong, or they're lifting wrong, or they're doing all of those other things, it's just going to come back again. So the approach I take with them definitely encompasses all of that.

Rx depends on how classified

classification
simple

acute
no Hx LBP
mechanical onset

understanding patient expectation

hands on Rx

Rx strategy
↓ ① / ↓ [illegible] patterns
provide exercises
education
educ / advice / strategies

type of classif^n determining type of Rx

When you're talking more kind of patients that have been to other physiotherapy clinics before, and there's some other reason why they're coming to you, or they're not happy, or something. So it's delving a little bit more into that. So there's a higher kind of subject of component with those ones. What was it that they liked about their last one, or didn't like about their last one? Why are they here to see me? What are they wanting to get out of it? What do they think could have been done differently? All of those kind of questions. A lot of those might be more chronic, so then you're looking at more the long-term treatment plan. So it's a slightly different approach. If it's still obviously acute, you might delve into more of the hands-on treatment a lot sooner. With those chronic ones my approach would be a bit more long-term focused. Does that answer that?

complex

understand / expectations

presentation classification will determine type of Rx

Interviewer: Yeah, that's heading in the right direction. What you're saying is that there are two sorts of people who come in. You've got your

Varying patterns
presentations as way to
guide Rx

straightforward ones and you've got your ones who aren't so straightforward. And it sounds like you take a [different approach between those two different populations] Stay with the straightforward ones at the moment. Give me an example or a description of the last person you saw that you deemed straightforward, and why.

Interviewee: I haven't actually seen any really recently. But it would just be the new patients that come in, like I said before, who've just gone for a netball intercept awkwardly, and then they have twisted their back. They've had no previous lower back injuries. They had no issues leading up to that happening. And then since then they've got an injury, and then they are here to seek your help to get rid of that pain, and get you going back to netball, for example. So that would be my straightforward person.

less complex pattern
recognition

Interviewer: So how would you describe in your key classification criteria for that category?

Interviewee: Acute. Nil previous history. Generally they're younger. Yeah, I don't know. They just fall into that.

Interviewer: Can you contrast it then with the not straightforward. How do you decide someone isn't straightforward?

Interviewee: They've got multiple factors going on. So, for example, the acute, straightforward one might be quite a classic disc related injury, and so it's one positive test findings for L4 disc. When they bend forwards they get their pain. When subjectively they're complaining of sitting. All that kind of stuff. You push on L4, it's exactly that. You do McKenzie extensions for example, it centralises pain. And that's working, and that eases up. So that would be more straightforward.

complex classification
simple classification
biomechanical response to
Rx/Ax

Chronic, you do multiple tests and it's not just the one level. It could be multi-level things going on. There could also be chronic gluteal [inaudible 09:36] spasm, or something, that's actually getting a bit of sciatic nerve involvement. Or it could be stiffening up the sacroiliac joint. So you've got to chase what to approach first. So that would be my more chronic type one, less straightforward one.

chronic classif^{n} defined by
biomedical factors

Interviewer: So that sounds like you've got a criteria that you apply to people when they come in. If they meet certain criteria, then take one approach. If they don't meet that criteria, then you're looking at another route?

Interviewee: Yes.

classifications matter to
Rx?

Interviewer: Well how about then contrasting the treatment. Does that look different between the two sorts of people?

Interviewee: Initially, yes, because the acute, straightforward ones, they will want you to actually put your hands on them, do some treatment. They want to get better fast. So I would, in my very first session with them, actually be doing hands-on stuff with them, and explaining the why, what I'm actually doing, getting their consent, making sure that's all right.

Bz
simple classification:
expectation progression care

With the chronic ones, sometimes I may do hands-on stuff, but a lot of the time it will be even more hugely focused around patient education, postural type changes, exercise plan for them to implement at home, that kind of thing. I feel like if an acute person came in and they just wanted you to do some work on them and loosen things up, and you spend all of that time talking about that, they may get a little bit, "She didn't even do anything". I feel like patient expectations as well could be different, depending on which criteria they fall into as well.

complex classif

'tension'
different classification
different expectation?

Interviewer: So those expectations, can you contrast them for me? The expectations of somebody who's straightforward versus the expectations of somebody's who's not. Do you think they're different, and if so, in what ways?

Interviewee: Yeah, so what I was saying before, I feel like if they're acute they want you to ... Everyone's different, right? I'm making a generalised comment here, but the majority of them, and going by what's on their initial sheet as well, what they're wanting to get out of it, I feel like they would want you to do hands-on treatment, and they want to leave the very first session feeling better, have some improvement. Whereas the chronic ones, they've been to other places before, they've been living with this for a long time. What's another three days until our next session, until we actually get into the nitty gritty of it all? So I feel like the understanding, people actually a lot of the time, if they have been to other physios, and then they come in, and even if I don't do anything with them for the chronic patient, but I spend my entire time educating them and making them understand why and how. When they actually do this during the day it actually is doing this in their spine. Then even if I haven't done anything and they leave, they actually have a big appreciation, because no one's actually taken the time to explain the how and why before. A lot of patients have come in and just said they go down the road to wherever, and "they give me a bit of a massage and yeah, it feels good, but it's just short-term relief. I feel like I'm not getting to the bottom of it".

expectations progression [illegible]
[illegible]

'tension'
therapist perception of doing
patients view:
'understanding'
'time'

Interviewer: Okay.

Interviewee: Does that answer it?

Interviewer: Yeah. Can you go into a little bit more about the education and maybe give me some examples of what you would say when you're

* where does this
concept of we are
not falling in
want
'doing anything'

educating a straightforward, and what you would say ... What's the difference in the educational level?

educational strategies

Interviewee: Education for straightforward would be actually getting out the spine model and (both categories) explain the whole anatomy of the spine, and each of the levels – your vertebrae, your discs, your nerves, your muscles, all of those kind of things. And then I tend to, in the acute stage, show them what they've actually done. With that netball intercept, for example, what actually happened within their spine, and then they can see it first hand. And then you explain to them the cascade of effects that happens from there. So now I try and relate it back to what we're finding objectively within the clinic. So that is why, when you bend forwards, for example, this is what's happening to the disc. And then they can understand, and then relate it to their every day type of stuff at home. So that is why when you're sitting it actually hurts, because you're in that flex position. And then light bulbs go off, and that's perfect, because then they get it. Because I feel like everyone learns differently, but if they don't see it first hand, it's really hard. I could just be saying words, and if I haven't built that 100% rapport with them, or trust with them, or confidence with them from the get go, which I try to do. But if I haven't, then they may not 100% believe me, or take it on board. And then I'm wanting to say something to them and show them, and then they actually implement that because they understand it, and they implement it forever.

education hierarchy (per Tom)

importance of building relationship to therapy

↑ engagement / lifestyle changes

Whereas education component for the chronic ones would be similar, but I would get into more of the long-term side of things, I think. So, still get their structural knowledge right – when you do this, clinically this is what's showing, because of this and this and this. When you go home, this is hurting because of this and this and this. So that's all the same. But I think I would just educate a lot more on exercise rehab and prolonged postural type stresses maybe. And then pain self-management type principles. Yeah, that's where it will differ, I think.

similar education around 'structural' factors

You'g got to read the person too. Sometimes a middle-aged man will come in, and they don't really care. They just want you to do stuff and help them, and get immediate relief. Whereas you can generally tell, talking to people, they will ask more questions about it, or give probing answers a little bit more as well, I feel. And they're the ones that you can actually take the time with to explain a bit more.

pt response guides direction of therapy + education
ie level of engagement

engage v less engagement

Interviewer: So that sounds like there are some personality differences.

Interviewee: 100%.

Interviewer: Yeah. Some of them seem more interested in the details of their care, and others less interested. You did mention, if I take you back a fraction, which relates a little bit to that. With the straightforward ones you said some of them don't see it. You said you're educating them, if they don't see it in that first hour, it's much harder. Why do you think some of them just don't get it?

Interviewee: Get what I'm trying to explain to them?

Interviewer: Yeah.

Interviewee: Sorry, I meant if they don't see the model. That's what I mean.

Interviewer: Okay. I didn't get that. Education.

Interviewee: Yeah. If they don't understand exactly what I'm going to say. So I think that's really important that I ask them, "Does that make sense, or do you have any questions?", after. Because I think that's the key thing as well, because people are polite, they just smile and nod, and you just assume that they know what you're talking about, and it's gone well over their head.

importance of patient
understanding

Interviewer: Yeah, we are speaking a different language, after all.

Interviewee: Yeah. And sometimes we don't understand that, because it's just second nature.

Interviewer: I like this idea about reading the person. What more can you tell me about that? You're reading your people. If there are some people that you're reading and you're going, "These people are going to respond well". Then some of them you're reading, "They're not going to go too well". What are the things you're reading that tell you that?

Interviewee: Reading about them specifically, like how they're acting?

Interviewer: Yeah.

Interviewee: I think their responses. So like I said before, whether there are actually asking questions themselves. Those people actually want to know more stuff. Whereas opposed to the other group of people, you might just ask them a question, and they're just blunt and to the point and quick. They just give very closed answers, for example. Body language, you can tell people sometimes, how they are reacting to certain things. So if someone's there a bit stiff, and doesn't actually want to be there, or closed off, or whatever. I feel like with those type of people I potentially would treat them a bit differently. If they fall into that more acute category I would probably just get more into the treatment side of things. Still everything we do always is the education, but you'd get into that a bit quicker, and then as you built maybe a little bit more rapport and trust, session two, session

what information using to
+ how using it?
language
respond to qns / body language
inquisitiveness / engagement
v
lower level of engagement
→ Rx differently
- more on therapy
quicker / less
emphasis education
build rapport/therapy

three, each session just delve a bit more deeper into it with those particular people.

why we pattern and strategy used

Interviewer: So, they're reluctant [? 20:16] to engage as well with what you're trying to do. Is that ...?

Interviewee: Yeah. There's definitely those people out there.

Interviewer: Why do you think that is?

matched Rx to person
individualising care

Interviewee: Well, there's always going to be different personality types, right? When I go to the dentist I don't want to sit there and have a chat and understand what's going on. I just want them to fix my teeth, and do that type of thing. So it depends on the person as well. But from my point of view, potentially it might come down a little bit to me trying to [adapt my approach to those different people so that I can actually build that patient rapport with them, so that they do buy into the whole why they need to actually]... Like, they're here in the first place, so obviously it's important to them. But just different personality types, different stages of where they're at.

strategy 'building rapp'
'and matching care'

Your chronic patients, for example, have been to so many other places, and they've decided to give up on their rehab. And then they've gone home and they've complained to their wife that their back is still sore, and the wife has booked an appointment to come in, because she's sick of him complaining. And then he comes in, and he's got this pessimistic look on his face, and he's a bit resistant to even being there in the first place. It might take a little bit longer to crack certain people.

difficult / challenging
person -
- not engaged

Interviewer: Okay. Well, how do you crack them?

strategies
understanding expectations

Interviewee: I think having those questions on that initial database form is actually really important, because everyone's there for different reasons as well. And I think also addressing those things in the room is really important too, because people hate filling out forms, and if it's just a form and paperwork. And then they come in, and they just feel like they filled that out and it's not actually relevant to what you're going in for. You don't really care. It was kind of a waste of time. So if you actually bring it up and relate all of your treatment plan to achieving those things, I feel like they're a lot more on board. But I also probably give them a little bit of an opportunity to, not quite vent, but explain why they've got to where they're at now. So, "What is it about your previous experiences that haven't worked?". Because I don't want to just be the next physio that does the exact same things, because that's just a waste of my time, and it's waste of their time. [So I always try and find something different or mixed with something else as well, to make it a little bit more thorough or meaningful to them.]

meeting patient expectations
opportunity to patient
to be 'heard'

find the 'reason' to get
better

validate experience

strategy:
do education 'better'

And then I potentially feel like education may not be getting done as good as it could be in the general scheme of things. So I feel like if they seem interested, then actually delving into that could be a point of difference, as to how to crack them too. Because they might not have understood what's going on, and some physiotherapy techniques are super weird. Like if you've got a disc injury, for example, and then you're doing these weird extension things, and you're not actually explaining why this is actually helping, the general public could, without that understanding, not quite buy into what it's doing, and why it's helping you. So, making sure that they're educated on all of that as well. So those are my cracking strategies.

explaining the 'why' of Rx

Interviewer: So patient understanding is important?

Interviewee: Yeah.

Interviewer: And finding something meaningful that matters to them and sounds important.

Interviewee: Yeah.

Interviewer: And hearing their story sometimes, as well, sounds important.

strategies
(1) 'educate'
(2) 'find reason to get better'
(3) listening

Interviewee: Yeah.

Interviewer: How do you build this trust, confidence and rapport that you mentioned?

Interviewee: You've just got to own it from the initial consultation.

relationship building

Interviewer: You've got to own it?

Interviewee: Yeah.

build confidence hugely ↑

Interviewer: Sounds like a Nina(?) comment.

Interviewee: I think you've just got to be confident yourself in your abilities. And a lot of it comes down to your language that you use. So, if you've been in chronic pain for a long time, and you have seen lots of other physios and other health professionals as well, and then you come, and then I start using language like, "I think maybe, potentially, we'll try this". All of those kind of things. Then, immediately, they're kind of, "Oh, she doesn't actually really know what she's on about", and the barriers can go up again as well. So I think it's a lot of confidence, and having a set process as well, and explaining that process, of what's going to happen. And making sure that they know that you're here to give them an individualised approach as well. Does that make sense?

strategy:
avoid 'loss of confidence'
project 'certainty' + confidence

strategy
individualizing approach

Interviewer: Yeah, it does. So that sounds like you have an expectation about what's going to happen in the consultation, and they have an expectation about what's going to happen in the consultation as well?

Interviewee: Yeah.

Interviewer: So generally what's your expectation?

Thpt expectn

pt engage

Interviewee: My expectation is that when they leave the room and we've done the subjective, we've done the objective. I've educated and explained, and potentially done treatment wise, got some exercises or whatever, for them to do at home. And I've told them the short-term and the long-term plan. Whether or not that is, "I want to see you twice a week for the next three weeks", say, then my expectation is that they actually walk out there, and they book it, because that means that they're actually on board with their treatment plan that I am trying to give to them. If they leave and they don't, then I feel like I haven't given them enough confidence in my ability to provide that for them. Or they're unsure whether or not it's that important. And then that expectation then leads to a watered down treatment approach, which I can't actually give them the full kind of treatment plan that I was wanting to give to them.

therapist expectation - therapy very therapist centric approach?

where/how do the patients views matter in this?

if I've done a good job then patient should commit to my time!

That's my expectation, and then also that if I'm giving them exercises to do, that they're actually on board to do them at home as well. I think I've become a lot more firm with those over the years as well. Previously less experienced, you give these exercises and people, they hardly ever do them. So they just want you to fix them within their session. But if they don't do them, they're not going to get the treatment outcomes that we're wanting, and it's actually a waste of their time again, their money, mine time. All of that kind of stuff. So I've become a lot more firm. I understand people are busy as well, and all of that, so I tell them to put alerts on their phone, so that it actually comes up. Everyone's different, so choose a time during the day, a particular day during the week. So if it's four days a week that they're supposed to be doing these things, then choose a day, choose your times, put an alert on your phone, and make it happen.

frustration / tension

engaging pts patients responsibility

frustrated with people who dont follow my plan

→ give them strategies to help achieve it

poor outcomes due to low engagement?

Interviewer: That sounds like you're ...

Interviewee: Pushy.

Interviewer: No, it sounds like what you're coming up with is strategies. Through experience you've identified ways to help people engage with what you think is going to help to get them better. How do people respond to what you're trying to do here?

Interviewee: I think they respond well. I have the biggest retention rate, so I think a lot of them appreciate the push as well. Because it's their body at

cause + effect? certain type patient attracted to this approach? to her?

the end of the day, they're with it all day. [So it's actually them that has to make the changes as well. I'm here to educate on the how and the why, and the what we can do to achieve that. But if they're not on board, I can't get them right.] So I've just learnt over the years that I have to ... You can't just be firm, as well, without having the why and how behind it. Because then I'd probably just lose people. But [I feel like I do see good outcomes, because I have that high retention and trust potentially, and people are a lot on board.] Because it's not just a funny thing if they come in and say, "I haven't done my exercises this week, sorry".

engagement important to the outcome

strategy

relational factors importance to outcome

Interviewer: Or lie, and say they've done the plan.

Interviewee: Yeah, but you can always tell.

Interviewer: That sounds like your practice has changed over time.

Interviewee: Yeah.

Interviewer: So how do you see your practice as having evolved or changed, since you graduated?

Interviewee: My practice personally, me as a physio?

Interviewer: Yeah.

confidence gained by experience

Interviewee: I [think confidence is a big part of it, and just experience.] When you're a new graduate, you might have only seen six disc patients, and you might not have seen that follow through, or you might have only seen that five of them might not have done their exercises. And all of that. [So you haven't seen the overall outcomes necessarily, and what benefit taking different treatment approaches could have.] Whereas now I experience confidence because of all of that. I probably have some clinical extra things in my toolbox. That always helps.

therapist specific factors importance to outcome - seeing patients and experience, → trialling different approaches

Interviewer: Like clinical education?

further training

Interviewee: No, like as in actual techniques I'm talking about. So, like after doing Mulligan, for example, or after dry needling, there's then other stuff that I can bring into it, that does set you aside potentially, because you've got bigger treatment options. If this isn't working for someone, you can try a different approach. So that's kind of grown too. Those are probably my three things that have changed.

Interviewer: Do you find, with this approach, that you've got your idea about people coming in, straightforward, not straightforward, and then you have your pathways for treatment, sounding quite nice and clear. That you go in and you, say, take two complex ones or two chronic ones, and you go, "Right, this is the way I do things", and the presentation's almost the same. And then you apply your method of treating them. One goes really well, one doesn't terribly, they actually go in polar opposite directions. One recovers and responds, and your retention rate out of them booming. The other one either comes once or twice, does really poorly, doesn't come back. What do you think is going on there?

factors assctd -ve outcome

Interviewee: There's so many different factors, right? One, [I haven't actually built that confidence, or something, from the beginning,] personally. It could just be my approach hasn't come across perhaps as I'd want to come across. So [they haven't bought into the importance of that.] Two, there could be a lot of other personal stuff going on, that they're using as barriers to coming in in the first place, or getting their exercises done. Or it could just be their day-to-day type of stuff is aggravating differently. So, what they're actually exposed to. It could be the mechanic, for example, that can't avoid bending in awkward angles and positions, so his rehabilitation's going to be longer. Or there's that possibility that there's something else going on, that they weren't actually the same in the first place, [and there's other factors that are contributing to this one.] So I would definitely start to adapt my treatment approach. So I'm not going to do the same thing with someone that is going in the opposite direction, or has plateaued, or that type of thing.

lack of engagement
psychosocial factors?
physical exposure factors

response to the determinants approach?

Because they might have felt that, but not actually voiced it, and then they fall through the cracks potentially. So I would ring them up, follow them up, and just have a chat with them, as to where they're up to. Just gauge is there any hesitation to re-book back in, and why, and all of that. And if there is any hesitation, "I wasn't feeling like I was heading in the right direction", then actually acknowledge that as well. Because that's kind of sweet, that's how they feel. Don't take it personally, but say, "All right, well that was just one part of the area of what we were going to try, but we've also got this, this and this, and I really think that this would be beneficial for you to try". Whatever reason, everyone's kind of different.

strategy:
acknowledge patients
perspectives

Interviewer: So you try to work out why it's not working, by the sound of it.

Interviewee: Yeah.

Interviewer: And then you want to try and tailor a bit more closely to why it didn't work the first time?

Interviewee: Yeah. So it has to be individualised, and if it's not working, then something has to adapt. So it has to be individualised.

individualised care
important

Interviewer: Can you expand on that, what individualised care looks like? Within your practice.

1 L [illegible] → GP 1 - Focus themes

2 [illegible] → GP 2 —

3 [illegible] ← GP 3
[illegible]

(1) new entity
→ [illegible] from [illegible] them
(2) [illegible] new organisation
Services

- Separate entity for services

→ organisation structure + set up

→ 1) setting up entity

→ 2) - [illegible] contracting

- work with HR
desk set up
organisation r/v
work spaces

Understand requirements
of Health + Safety Assn
N

scenarios following scenarios
[illegible]
workplan
setting mechanism

Interviewee: I think individualised care is, if someone comes in and says, "Yes, I felt good after last time", for example, "But it only lasted a day or two", or two hours, or however long. Then you know that yes, you're on the right track, but you can't just keep doing the same thing, because you can't keep seeing them every single day of the week. So you've got to individualise it to them in that regard. So continue with one aspect of that but add something else in, and see what that response is. And that could be different with other people that have still got chronic back pain as well.

individualised care means tailoring Rx approach based on Hx and response to Rx

Interviewer: So what are the sort of things that you are putting in and pulling out?

Interviewee: Techniques wise? Because techniques wise is what i'm talking about.

Interviewer: I'm thinking umbrella physio treatment, and it sounds to me like you're putting in, "Did that work?", pulling out. Put this one in. What are the sort of range of things that you would use?

Interviewee: Whether or not you're doing massage with McKenzie type extensions, for example. Whether you're working on that directional preference with Mulligan techniques, or whether you are doing dry needling. And we've got computerised gate [? 37:10] scanning equipment as well, so if it's a bit more chronic long-term, seeing if it's time to get them on that, and have a look and see if they're more [several inaudible words 37:22] inversion, whatever. And seeing if there's differences going on, left versus right type things. It could come down to particular exercises as well. So maybe we started a bit too more global type exercises with muscles, and we need to go back in to work on the deeper stabilising muscles. It's a juggle of all sorts of things.

individualised care means different interventions -> 'matched' care

Rx formulation education + advice not exercise

matched care means adapting components to suit individual

Interviewer: So clinical thinking through the different types of techniques, and trying adapting and using them. Who do you think responds really well to manual therapy?

Interviewee: Definitely that first acute group. I use manual therapy a lot. So both categories, but definitely more so the acute group side of things. Chronic needs to really have ... I definitely always would do manual therapy, but bigger on the education/exercise side of things.

Interviewer: So, your decision to use manual therapy or not, is that more based around the stage that they're at, as opposed to ...?

Interviewee: I thought you were going to ask me about a chronic research thing to do with manual therapy.

Interviewer: No. Do you make a decision whether to use manual therapy around the personal characteristics, or the clinical presentation characteristics?

classif^n system
analyses things from
a very biomechanical
biomedical standpoint

Interviewee: The clinical presentation.

Interviewer: Clinical presentation would predominantly guide what you do?

Interviewee: Yeah. Especially if it's a movement dysfunction going on, and I feel like I can go in and [inaudible 39:33] rotate their ilium, and anteriorally rotate their sacrum and [inaudible 39:39], and I can then produce that same movement pattern completely pain free, then it's a diagnostic thing and a treatment thing at the same time. But I would go in and do that. I would be doing them a disservice if I don't do that.

response to Rx
classif^n

Interviewer: I might have asked this question already, but I'm just thinking, what happens when clinically you see a patient who fits a criteria for a movement classification dysfunction, that you've seen before lots of times? And if you choose this technique, it changes their pain and they get better, or if you use this technique it changes their pain and it gets better. So you've got a number of techniques you use.

Interviewee: Yeah.

Interviewer: What do you think when they don't? So, you've got them in this nice little directional preference classification, but your treatment doesn't work. What do you think?

when they dont respond

Interviewee: I feel like there's something else going on. So, they're standing right in front of me and I can't get [inaudible 40:42], so I can't make it better.

Interviewer: Yeah. You've been working away, your normal go to ...

Interviewee: So I think there's something other. It could still be what's going on in front of me with what I'm thinking, but there's something else also going on. [I feel like I'm missing something.] So whether or not I have to go back and [do a bigger bio-mechanical assessment] or whether or not they need to be [referred on for x-rays.] There's some other reason, let's go and find it.

when patient is non responsive
strategy is to do

Interviewer: Okay. So the other reason would be some kind of diagnostic thing that might not have been apparent initially, and it's important to find out what that is.

Interviewee: Yeah.

Interviewer: Let's move on to what you think is most challenging about these people, your back pain patients?

Interviewee: Most challenging about my back pain patients? Chronic ones would definitely be the psychological side behind chronic pain. They often have a whole negative outlook and experience on the whole process. Fear avoidance of certain things as well. They're often quite tight and tense, and stiffen up, and all of that kind of stuff. So that's definitely not going to be able to help. So it would be a barrier to them getting better.

challenging aspects + factors associated with -ve outcomes

→ psychosocial factors

Challenging with the acute side of things would be I guess just them actually doing what you're telling them to do with their home exercise programme to get better. Or actually getting them on board with if you say, "No, you shouldn't go and play netball tonight", that they trust your professional judgement, and don't. So, listening, following the treatment plan, and then the psychological stuff for the chronics.

→ engagement

what is the approach?

Interviewer: So how do you work out what the psychological stuff is?

Interviewee: I feel like a lot of the chronic patients (I know there's [inaudible 43:32] measures and stuff like that, but you're talking about me being honest with what I actually feel in the clinic?

Interviewer: Yeah.

Interviewee: So I probably don't put in place any of those. I do more so chatting to the patients as well. [So as long as I've built that rapport, you can generally tell if there's other stuff behind the scenes.] And I've had plenty of patients crying on my bed very, very often. So [just being able to chat about them, and trying to ask their questions, and letting them just tell you what's on their mind about the whole thing as well.] Trying to relate it back to their back pain and everyday type of things.

relationship factors / strategies

rapport

listening

Interviewer: So do you treat them differently? I mean, when the person's there crying, how do you treat them differently from when the person isn't crying?

Interviewee: I give them a box of tissues. I still wouldn't give them a watered down approach, because I wouldn't back off with any of that, because they're obviously in, if not greater need, of getting better for their own sake as well. So it would be all of that kind of stuff, [but acknowledging how much this is affecting them, but using that as the kind of driver force to motivate them to do all of this stuff and change whatever it is that's causing this. I am a bit solution focused,] so I try not to ... I'd probably make a terrible psychologist. They can vent away, and all of that, but as long as it's got an outcome out of it at the end of it, then I take that as a success. They

identifying strategies for recovery

patient centred goal setting

* might not have anyone at home or outside that they can actually explain all of this to, so I think just being there to listen, acknowledge, and help them find a solution.

be there to reinforce how important the relationship is

Interviewer: So solution focused. In your mind, what's the solution to low back pain?

Interviewee: Oh, what's the meaning of life? It literally could be someone that's just so stressed at home or at work, or something that's just one potential problem, and they just ... People hold stress differently, and it manifests in so many different ways, and chronic pain can definitely be one of them. But making them aware of that, because people don't actually register sometimes that it can be contributing to that. So, making them see the connection between potentially what they've got presenting with their chronic low back pain, and what they're feeling, stress related wise. Using that to change some things at home.

identifying psychosocial factors important

address relevant factors as part of Rx strategy

I talk to lots of people about breathing control even, or setting time aside to do that mindfulness stuff we were talking about earlier, or setting routines for themselves, or getting external help, or whatever it is. You have to be a little bit careful with how much you tell them. They've got to kind of come up with it themselves too, otherwise they're not going to take it on board. But that would be some solutions.

empowerment

Interviewer: That ties in nicely with patient-centred solutions, doesn't it? Without putting words in your mouth – collaboration and co—operation and accommodation of views between yourself and the patient sounds important.

Interviewee: Yeah.

Interviewer: You might have already then answered this question about what matters most in those encounters. I picked up some things that sounded to me like you thought really mattered and were important. But just tell me again, what do you think is the most important?

Interviewee: To them, or to ...?

Interviewer: No. In your opinion, what matters the most to getting a good outcome in that encounter?

Interviewee: It would be that they actually have the understanding of what we're trying to achieve; an understanding of how they're doing with certain things that are contributing to their chronic back pain presentation; and that they've got good confidence in my beliefs too. I think it goes both ways too. So they need to understand better their own situation, but also I think it is of huge importance for me to actually build that trust and confidence in

tx outcomes depend on
patient understanding;
(not therapist (?))
(trust + confidence in
relationship)

them. Because they've potentially been to other people before and heard the same things again, and it's ended the same way. So I find it pretty easy to do it in that first initial consult, but you've got to follow it through throughout the whole plan as well. So each and every session validating that, because you can set a pretty good plan in place from the beginning, but if you don't follow through every aspect of that, to someone who's been through that so many times and has psychological other issues, that could be detrimental all over again. You've made all these promises and then haven't followed through. So it could be worse than the person before that didn't make the promises, and did kind of okay. So it matters.

strategy?
therapist beliefs based on experiences
act with integrity
follow thru
keep your side of bargain

Interviewer: It sounds like it would invalidate things if their experience wasn't meeting their expectations. Talk to what does invalidate it.

Interviewee: If I set that plan in place, and I try and make sure that people know what we're going to work on in the next session as well. So then, if I say that to them, and I always write it in my plan section, because I can't remember at all. And if they come in the next session and I just take a totally different approach without actually explaining the reason why, I feel like they would start to feel like a bit of a number, rather than that I'm here for their exact individualised care.

clinical reasoning in the moment to respond session to session experience?

Interviewer: Right. So you'd stick to your plan?

Interviewee: You don't have to stick to your plan, but you would address your plan every time. So, "We were going to do this, like I said last session, but I actually think today you would benefit more from this, this and this, because of x, y and z". And then you've covered all your bases there. You've got that continuation of your treatment plan from the beginning one to the next one, but you're also adapting it to their individual needs. Because they're going to come in and subjectively tell you, "Don't know". So it has to be adaptable definitely.

strategy:
flexibility

Interviewer: That's from the day-to-day presentations?

Interviewee: Yeah.

Interviewer: So you must have probably as many people as I've seen over the years. So it's six, it's eight, it's now ten, and nothing's changing.

Interviewee: Yeah. Treatments, you mean?

Interviewer: Yeah. Nothing's changing. The treatment that you're doing, the way you adapt your treatments, it's not working. They're still exactly the same. How does that make you feel?

non responsive pts

Interviewee: Frustrated, because you actually wanted to make a difference to them, and it's taking a while. Just about how it makes *me* feel?

non responsive pt =>
frustration +
'second guessing'
acceptance

Interviewer: Yeah.

Interviewee: I guess just frustrated, but it also makes me second guess, but not in a bad way, just second guess myself to make me look outside the box a little bit more too, to see if there's something else going on. [You can't fix everyone.] but ...

Interviewer: No, you can't.

Interviewee: And sometimes people are just going to take longer as well. So I think as you get that clinical experience, if you set that kind of expectation from the first place, the patient isn't there ten visits later saying, "Why am I not running the half marathon now?". They actually understand that it is something that they need to work on, and take a bit more initiative themselves as well. That's my feelings, it makes me feel frustrated, and second guess myself.

building realistic
expectations

Interviewer: So what do you do in that situation? If you get to that point where they haven't achieved their goals, they're still in the same condition, you're feeling frustrated, and you're second guessing. [What do you do?]

Interviewee: I'll send them to you! I wouldn't have exhausted all my other treatment things, like I was talking about before. I'd make sure any of the relevant type ones, potentially try different things there. Like if I haven't tried dry needling, for example, then I could do that; get them on the gate scan potentially, see if there's any bio-mechanical things. Put them through a whole bio-mechanical type screening, and see if there are things that we've missed out on there. If they come back fine and we've exhausted all of that, potentially I'd refer on to someone else, whether it's a spinal specialist or I'd get some deeper scans, or that type of thing. It depends what it is too sometimes. If there's some other thing it might be to go back and see the GP.

more Rx
diff Rx
diff + Ax
refer on / imaging

Interviewer: Have you had situations then where you've done that, and then you've found they've bounced back? They've seen the GP, the specialist, they've had the imaging, and now they're back sitting in front of you.

Interviewee: I have, yes. So what do you do then?

Interviewer: Yeah, well what did you think?

Interviewee: What did I think? They've got something else going on as well. So that's when the other factors come into play as well. Within this clinic we probably do [put them into the pilates class type situation, and try and build up some core stabilisation type training, and see if some muscles don't just strengthen, just like that.] It's going to take a lot of time. I've got a lady at the moment who's been with me for years, and she has a cry every second treatment. She's actually heaps better now, but there's definitely a psychological part to that. So it's potentially a refer to GP type thing. It might be an anti-depressant type situation going on. And then I would just send through a GP letter to them as well, and explain what we've done, exhausted all of those options, and that type of thing.

difficult pt

psychological aspects

Interviewer: So she's been with you for a few years. What is distinctive about your clinical relationship with her that might be different to people who've only been with you for two months or two weeks. Is there anything different about it, or is it the same?

Interviewee: My clinical relationship with her?

Interviewer: Yeah.

Interviewee: I think it's similar, but she knows a lot more about me and I know a lot more about her, so we've got that bit of personal relationship as well.

Interviewer: Yeah, that's different, isn't it?

Interviewee: Yeah. When you're with someone for so long, that kind of grows from there as well.

Interviewer: What do you think of that?

Interviewee: I feel like she would have trust in me to be able to just say ... She tells me some crazy thoughts and theories that she has, and I feel like she probably wouldn't voice them outside of our room. So the fact that she does that, it just makes me think that she's got trust and confidence in my confidentiality and all that kind of stuff too. So she feels like she can vent away a little bit. It just gives that open communication to us.

importance of a
bi-directional
relshp
based on
trust
confidence
open 2 directional
communication

Interviewer: How did you get that far, or did she come venting all kinds of unusual theories right from the word go? Or is this something that developed?

Interviewee: She's always been a little [inaudible 57:31]. But no, it has developed more and more over the years. No judgement, you just have to be ...

Interviewer: No judgement from you?

Interviewee: Yeah. And just be that person that they can actually talk to, and you're providing beneficial feedback. So you're listening and taking on board what they're saying, and treating them like an individual, rather than just giving them answers and trying to get out the door within 20 minutes.

important to a true outcome
→ build a r/ship

Interviewer: Do you enjoy that relationship?

Interviewee: Do I enjoy that relationship? It's a bit funny, because she is unique. But yes I do. I don't like people crying on my table all the time, but ... I don't know. Do I enjoy that relationship? [I do, I don't mind it. I feel like she's part of the job. We're in a physiotherapy career that people are in pain, and with that comes a lot of that other side of things as well. So yeah, I don't mind dealing with that. But I enjoy working with everyone. Other people come in with totally different kind of banter, and I love that too.]

how she views the relationship
seen as part of the job

Interviewer: So your outcome with that person, it's a good outcome, yeah?

Interviewee: Yeah.

Interviewer: What do you think would be her outcomes? She's still coming, I gather?

Interviewee: Yes.

Interviewer: So how is that a good outcome?

Interviewee: Oh, how is that a good outcome because she still comes to see me?

Interviewer: Comes to see you, yeah.

Interviewee: So she's more at maintenance type thing now, so she's not an ACC injury or anything now. She's like a preventative/maintenance type thing. So it's good, because I think I only see her once a month now. So she obviously gets benefit out of coming in once a month, otherwise she wouldn't. She'd quite vocally tell me that she wouldn't, so I'm assuming she would think that was a good outcome.

?

Interviewer: Well, you mentioned ACC, so does that impact on any of this? On your practice, on the way you treat anything?

Interviewee: Yeah, definitely. In what regard though? So, how many times you see them, are you talking about, or what you actually do within the session?

Interviewer: I guess I'm interested in what you think the impact of ACC is on the clinical encounter. That's going to be whatever you think it is.

Interviewee: I think ACC's quite a good system. It's a little slack, but I think it's fine. It's there for people that have had a sudden injury and they've now got problems, and they're coming in to seek physiotherapy help. You give them that particular thing. All of that falls under the umbrella of accident-related kind of things that you need to deal with because of that injury.

It gets a little bit hard further on down the track, obviously, when it comes to the chronic type ones, because if they've got this injury that was an accident, but then there's all of these other things that come into play, those factors are the bigger things. So it needs to be more of a private type thing. So sometimes overcoming that financial barrier for some people, that will push that price from an ACC surcharge to a private consult that they now need to come and see you for, you may lose a few of those patients through the cracks. It seem not as detrimental to get those consults potentially done that far down the track as it was when you're in acute pain, and all of that. So convincing people that it is still actually important for long-term prevention and maintenance. I think ACC is great. Some decisions could be a little bit better. But in regards to that, that's my only thing, it just gets harder for more chronic patients.

does ACC influence the
clinical encounter?

influence engagement if
acc / wasn't covered

Interviewer: With that need to switch over, and all those arguments with whether they're covered or not?

Interviewee: Yeah. And patient opinions of ACC I feel are a little bit unfair at times, too. Because they feel like they've only got this problem because of that one injury they had three years ago, and ACC should be covering everything to do with it. So it's a little bit of negativity towards that side in some conversations at times.

patient negativity whether
doesn't matter
this influences
outcomes

Interviewer: You've talked about lots of things. Just before we finish the interview, is there anything that you want to tell me about your experiences with people with back pain, or clinical encounters, or matters related to getting good outcomes that you haven't said?

Interviewee: I feel I've said lots. No, I think I've said it all. [I think it's just really important to listen to why the patient's actually there in front of you, what their previous experiences are, what they're actually wanting to get out of it, and then reading the person a bit as well, as to what they're responding to.] And then [following that through] so you're not just a physio that they came and saw for a little bit, and then [later on down the track it just comes back again, and you obviously, as a physio, haven't done the job completely right, because it happened again.] So just [being that voice of education around the long-term management and prevention side of things as well.] And then making sure that's consistent among everyone. That's basically it.

identify expectations / beliefs

showing integrity
'getting it right'
education + advice

Appendix 12: Final scaffold of nodes, categories, subcategories and codes

Name	Description
2019 Nodes	
Classifying	Describing the ways clinicans classify their LBP patients and the factors that influence this in order to understand the presentation and guide treatment decision making
Assessing LBP	Describing therapist approaches to managing different LBP presentations
Complex presentations	
SAB factors	
Simple presentations	
Examples of Classifying	
Complex presentations	
Mixed presentations	
Simple presentations	describing the way clinicians identify the 'straightforward' presentation
Guide to Rx	
Classification	
Complex presentations	
Simple presentations	
LBP Attributions	What therapists attribute LBP symptoms too
Other factors	

Name	Description
SAB	Structural Anatomical Biomechanical factors
Complexity	Describing therapist perceptions of how subjective patient complexity influences their approaches to LBP patients
Dependancy	
Difficult diagnosis	
Failing to respond	
Perceived complexity	
Other factors	
SAB attributions	
Responding to challenging aspects	describing the ways therapists respond to challenging patients presentations
Consider expectations	
Educating	
Exploring beliefs	
Exploring experiences	
Listening	
SAB escalation	
Simplifying	
Unrealistic expectations	

Name	Description
Engagement	Describing therapist perceptions of the importance of obtaining patient engagement
Barriers to engagement	
Absence of rapport	
Absence of trust	
Different priorities	
Lack of understanding	
Inquisitiveness & curiosity	
Lack of engagement	
Patient Understandings	describing therapist perceptions of the importance of the patient understanding what the problem is
Therapist engagement strategies	
Expectations	Describing the influence the influence of expectations on clinical decision making practices
Dealing with conflicting expectations	
Influences Treatment	
Patient Expectations	describes the sorts of expectations therapists perceive patients as having
Being heard	
Caring	
Complex presentations	
Exercises	

Name	Description
Hands on	
Individualised care	
Pain Relief	
Reassurance	
SAB attributions	
Thorough Ax	
Time	
Understanding	
Recognising importance	
Therapist Expectations	Describing therapist expectations for the clinicl encounter
Empower	
Engage	
Frustration	
Meet patient expectations	
Reassurance	
Respond	
SAB attributions	
Understand	

Name	Description
Influences on Treatment	Describing how therapists treat various LBP presentations
Classification	
Diagnosis	
Engagement	
Expectations	
Patient	
Therapist	
Health co-morbidities	
Importance of individualising care	
Psychosocial factors	
Response to Rx	
SAB attributions	describing SAB approaches to treatment
Therapist factors	
Interpersonal Relationship	Desribing the importance of the relationship between therapist and patient as a factor influencing decion making and outcomes
Absence of trust	
Bi-directional relationship	
Rapport trust & confidence	

Name	Description
Therapist self efficacy	
To Treatment	
Other Nodes	
ACC	
Patient demographic	description of the sorts of people with LBP therapists see
Practice influences	describing the factors that influence the therapists clinical practice development
Types treatment	
Education & Advice	
Exercises	
Manual Techniques	
2020 Nodes - Therapists 1 - 8	Nodes identified after re-starting coding August 2020 with Physio 4
ACC Influence	therapists generally viewed ACC positvely and lacked insite into its influence on the management decisions for LBP ?
Challenges or Difficulties	describing factors that are perceived by therapists to make presentations or people difficult to assist
Complexity	
Dealing with expectations and beliefs	Difficulties associated with dealing with patient expectations and attribution beliefs
Expectations pain relief	
Expectations passive care	People who arent willing to take responsibility for their own recovery

Name	Description
Lack of understanding	
Unrealistic expectations	
Engagement challenges	describing factors that therapsist find challenging with gaining the patients engagement
Lack of engagment	
Negative Rx experiences	Hx of failed Rx
Persistent symptoms	
Psychosocial factors	
Cultural factors	
Lifestyle factors	
Psychological factors	
Social factors	
Relationship factors	Factors undermining the confidence based therapeutic relationship or that make patient difficult or challenging
Control tensions	
Dependancy	
Lack of confidence	
Rapport lacking	
Therapist behaviours	
Factors contributing to negative outcomes	describing factors therapists perceive contribute to negative outcomes

Name	Description
CLASSIFICATION	
Engagement lacking	willingness to participate, take responsibility, listen. engagement may be lacking because of personal characteristics - see nodes
Control tensions	who has control of the clinical encounter ?
Personal characteristics	
Relationship difficulty	absence trust, personality clash, relationship building undermined in some way, different beliefs/expectations
Expectations	
Expectations not met	
Expectations pain relief	
Expectations passive care	
Health system factors	time, reimbursment arrangements
Negative consultation experiences	with previous or current health care professionals
Negative interactions	between patients and health care providers
Symptoms non-responsive	
SYMPTOMS or PATHOLOGY	
Personal characteristics	factors relating to the individual that influence the clinical outcome negatively
Attribution beliefs	
Cultural factors	

Name	Description
Lifestyle factors	
Psychosocial factors	
READINESS TO CHANGE	
Factors contributing to positive outcomes	describing factors therapiusts perceive as contributing to positive outcomes
CLASSIFICATION (2)	the group therapists classify patients into can have an influence on the outcome - positive recovery expectations
Engagement	
Meeting expectations	Meeting expectations is about engagement
Personal characteristics	openness to change, inquisitveness
Positive consultation experiences	
Positive empowering experiences	
READINESS TO CHANGE	Openness to change, inquisitive etc.
Symptoms or pathology	
Factors influencing therapist practices and beliefs	describing factors therapists believe to influence their practice
Education and training	
Therapist related factors	
Therapists Beliefs	
Bio-medicalised explanations helpful	

Name	Description
Building relationships important	
Compromising important	
Conflict of interests	
Control tensions	
Cultural differences	
Early intervention important	
Engagement important	
Expectations	
Exercises	
Experiences with patients	
Pain relief	
Passive care	
Understanding expectations important	
Unrealistic expectations	
Functional goal setting works	meaningful patient centered goals i.e. reasons to get better
Group support helps	
Imaging negatice impact	

Name	Description
Lifestyle factors	
Listening as therapy	
Management not cure	
Natural history conditon	
Patients responsible own recovery	
Positive experiences	
Previous patient experiences	
Providing answers helps patients	
Psychosocial factors	
Reassurance important	
Referrals can be helpful	
Therapists lack skills	
Therpist self efficacy important	
Time pressures	
Frustrations and tensions	what about the tension that exists between therapists strategies of education and the belief that asking and listening is so important ?
Interaction factors	exporing factors relating to the interaction between the therapist and the patient
Compromising	

Name	Description
Concurrent advice	
Conflicting beliefs and expectations	what is it that therapists expect compared to what patients are expecting ?
Control tension	
Dependancy	
Not engaging	
Patient expectations	
Relationship factors	
Presentation factors	factors specific to the presentation that create tensions or frustrations in the clinical consultation
Complexities	
Non-responsive	
Psychosocial factors	
Relationship factors	
RESIGNATION	Resignation that unable to help everyone as source of frustration or tension or that have to compromise and meet peoples expectations. accede tp the [atinets beliefs about Rx over therapists own beliefs sometimes cant help people until they are ready to change
Therapist factors	
Conflict of interests	
Health system factors	
Lack skills	

Name	Description
Therapist skill not utilised	
Time	
Strategies Management LBP	Describing the strategies or ways in which PT manage people with LBP
Build relationship	differnet ways by which physio buiilds a confidence based relationship
Acceptance	accepting and acknowledging the patients experience
Asking and listening	understanding the patient and their experience and whats important to them
Avoid confronting beliefs	
Build trust and rapport	
Clear direction or plan	
Compromising	sharing "control"
Creat accountability	
Empathy	
Facilitate understanding	
FLEXIBILITY	
Individualising care	
Meet expectations	Does compromise lead to better clinical outcomes? How do we define what a good clinical outcome actually is ?
Provide exercises	

Name	Description
Provide passive care	
Referral	
NEGOTIATION	
PATIENCE	
Positive experiences	
Reassurance	
Supporting	
Therapist self efficacy	therapist self efficacy as a moderator of Rx outcomes
TIME	
TOUCH	
Categorise or classify	
How classify	systems used by physios to identify patterns in patients, or factors takin into account when making a 'patterning decision'
Bio-medical factors	describing physical pattern recognition based on MDDA approaches
SUB GROUPINGS	
Bio-psychosocial factors	describing pattern recognition using biopsychosocial pattern constructs
SUB GROUPINGS	
Engagement	

Name	Description
Expectations	
Previous Rx experiences	
HEALTH SYSTEM	Refferral sources, private, ACC etc
MIXED CATEGORY	
Response to Ax or Rx	
Why classify or categorise	Categorisation methods used to help make treatment decisons - identify patients most likely to respond to different types of treatment based on the factors identified, clinical patterning for matched care
Generic Rx approaches	Non-individualised Rx
Guide Ax or Rx	Categorisation used to guide Rx or Ax decisions
Individualise care decisions	
Educating	patients voice is missing in all of this
Biomedical	
Biopsychosocial	
Therapist Model Care	Therapists believe they ghave role to tell patients what they think the patient needs to know
More Ax	
Positive empowering experience	
Functional goal setting	Non-pain contingent goals - meaningful goals for the person i.e. reasons to get better values based goals
POSITIVE ROLE MODELLING	

Name	Description
Positive Rx experiences	
Promote patient confidence	
Provide strategies	
Reflective questioning	
Target lifestyle change	
Therapist 7 & 8 Nodes	
ACC Influence	therapists generally viewed ACC positvely and lacked insite into its influence on the management decisions for LBP ?
Challenges or Difficulties	describing factors that are perceived by therapists to make presentations or people difficult to assist
Complexity	
Dealing with expectations and beliefs	Difficulties associated with dealing with patient expectations and attribution beliefs
Expectations pain relief	
Expectations passive care	People who arent willing to take responsibility for their own recovery
Lack of understanding	
Unrealistic expectations	
Engagement challenges	describing factors that therapsist find challenging with gaining the patients engagement
Lack of engagment	
Negative Rx experiences	Hx of failed Rx

Name	Description
Persistent symptoms	
Psychosocial factors	
Cultural factors	
Lifestyle factors	
Psychological factors	
Social factors	
Relationship factors	Factors undermining the confidence based therapeutic relationship or that make patient difficult or challenging
Control tensions	
Dependancy	
Lack of confidence	
LACK OF INTERPERSONAL SKILLS	Therapists lacking inter-personal skills
Rapport lacking	
Therapist behaviours	
Factors contributing to negative outcomes	describing factors therapists perceive contribute to negative outcomes
CLASSIFICATION	
Engagement lacking	willingness to participate, take responsibility, listen. engagement may be lacking because of personal characteristics - see nodes
Control tensions	who has control of the clinical encounter ?

Name	Description
Personal characteristics	
Relationship difficulty	absence trust, personality clash, relationship building undermined in some way, different beliefs/expectations
Expectations	
Expectations pain relief	
Expectations passive care	
Not meeting expectations	
Health system factors	time, reimbursment arrangements
Negative consultation experiences	with previous or current health care professionals
Negative interactions	between patients and health care providers
Symptoms non-responsive	
SYMPTOMS or PATHOLOGY	
Personal characteristics	factors relating to the individual that influence the clinical outcome negatively
Attribution beliefs	
Cultural factors	
Lifestyle factors	
Psychosocial factors	
READINESS TO CHANGE	
Factors contributing to positive outcomes	describing factors therapiusts perceive as contributing to positive outcomes

Name	Description
Engagement	
Meeting expectations	Meeting expectations is about engagement
Personal characteristics	openness to change, inquisitveness
Positive consultation experiences	
Positive empowering experiences	
READINESS TO CHANGE	Openness to change, inquisitive etc.
Symptoms or pathology	
Factors influencing therapist practices and beliefs	describing factors therapists believe to influence their practice
Education and training	
Therapist related factors	
Therapists Beliefs	
Bio-medicalised explanations helpful	
Building relationships important	
Compromising important	
Conflict of interests	
Control tensions	
Cultural differences	

Name	Description
Early intervention important	
Engagement important	
Expectations	
Exercises	
Experiences with patients	
Pain relief	
Passive care	
Understanding expectations important	
Unrealistic expectations	
Functional goal setting works	meaningful patient centered goals i.e. reasons to get better
Group support helps	
Imaging negatice impact	
Lifestyle factors	
Listening as therapy	
Management not cure	
Natural history conditon	
Patients responsible own recovery	

Name	Description
Positive experiences	
Previous patient experiences	
Providing answers helps patients	
Psychosocial factors	
Reassurance important	
Referrals can be helpful	
Therapists lack skills	
Therpist self efficacy important	
Time pressures	
Frustrations and tensions	what about the tension that exists between therapists strategies of education and the belief that asking and listening is so important ?
Complexities	
Compromising	
Concurrent advice	
Conflict of interests	
Conflicting beliefs and expectations	what is it that therapists expect compared to what patients are expecting ?
Control tension	
Dependancy	

Name	Description
Health system factors	
Lack skills	
Non-responsive	
Not engaging	
Patient expectations	
Psychosocial factors	
Relationship factors	
RESIGNATION	Resignation that unable to help everyone as source of frustration or tension or that have to compromise and meet peoples expectations. accede tp the [atinets beliefs about Rx over therapists own beliefs
Therapist skill not utilised	
Time	
Strategies Management LBP	Describing the strategies or ways in which PT manage people with LBP
Build relationship	differnet ways by which physio buiilds a confidence based relationship
Acceptance	accepting and acknowledging the patients experience
Asking and listening	understanding the patient and their experience and whats important to them
Avoid confronting beliefs	
Build trust and rapport	
Clear direction or plan	

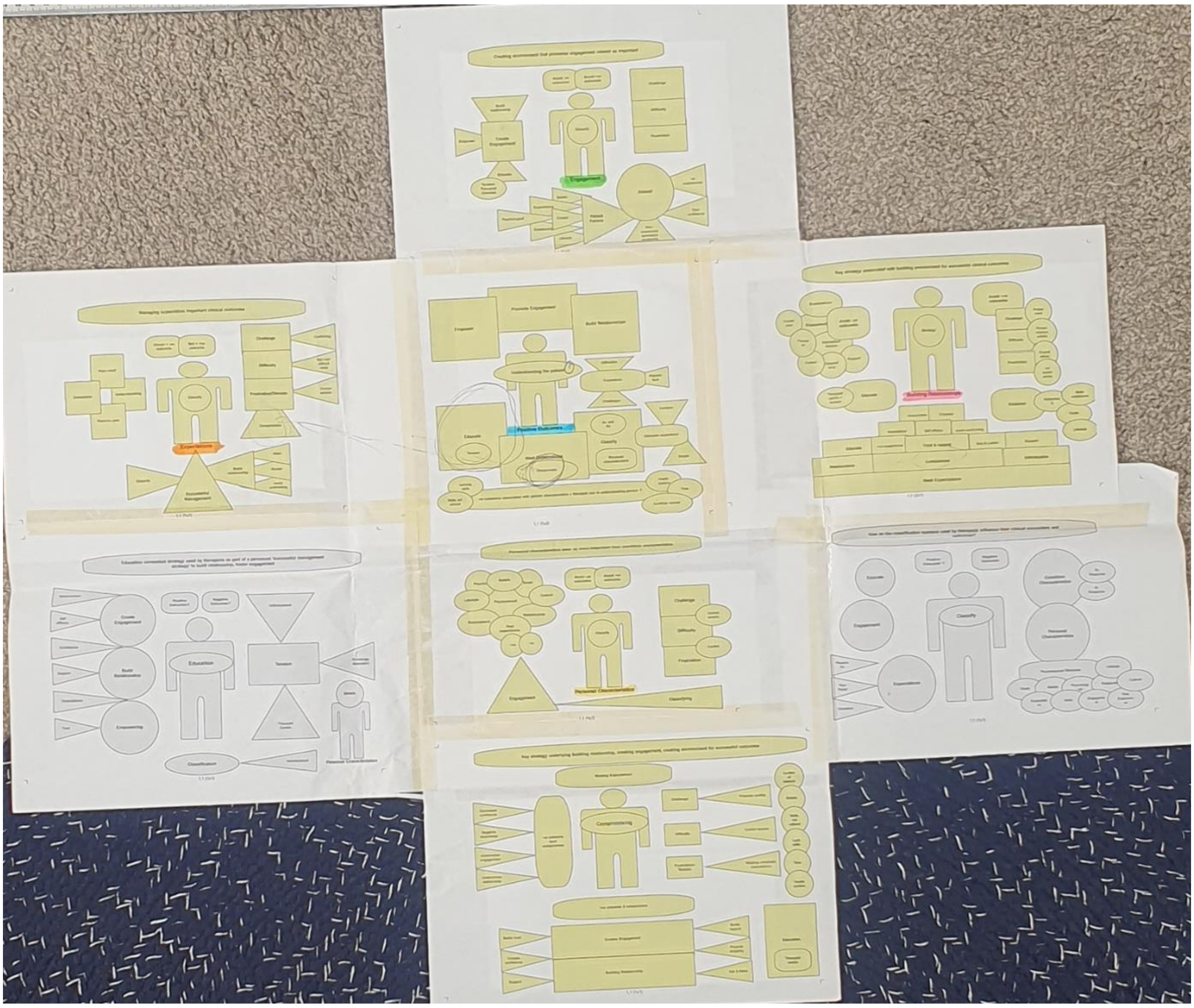
Name	Description
Compromising	sharing "control"
Creat accountability	
Empathy	
Facilitate understanding	
FLEXIBILITY	
Individualising care	
Meet expectations	Does compromise lead to better clinical outcomes? How do we define what a good clinical outcome actually is ?
Provide exercises	
Provide passive care	
Referral	
NEGOTIATION	
PATIENCE	should be contrasted with giving up ...
Positive experiences	
Reassurance	
Supporting	
Therapist self efficacy	therapist self efficacy as a moderator of Rx outcomes
TIME	

Name	Description
TOUCH	
Categorise or classify	
How classify	systems used by physios to identify patterns in patients, or factors takin into account when making a 'patterning decision'
Bio-medical factors	describing physical pattern recognition based on MDDA approaches
SUB GROUPINGS	
Bio-psychosocial factors	describing pattern recognition using biopsychosocial pattern constructs
SUB GROUPINGS	
Engagement	
Expectations	
Previous Rx experiences	
HEALTH SYSTEM	Refferral sources, private, ACC etc
MIXED CATEGORIES	
Response to Ax or Rx	
Why classify or categorise	Categorisation methods used to help make treatment decisons - identify patients most likely to respond to different types of treatment based on the factors identified, clinical patterning for matched care
Generic Rx	Classification doesnt influence the type of treatment provided
Guide Ax or Rx	Categorisation used to guide Rx or Ax decisions
Individualise care decisions	

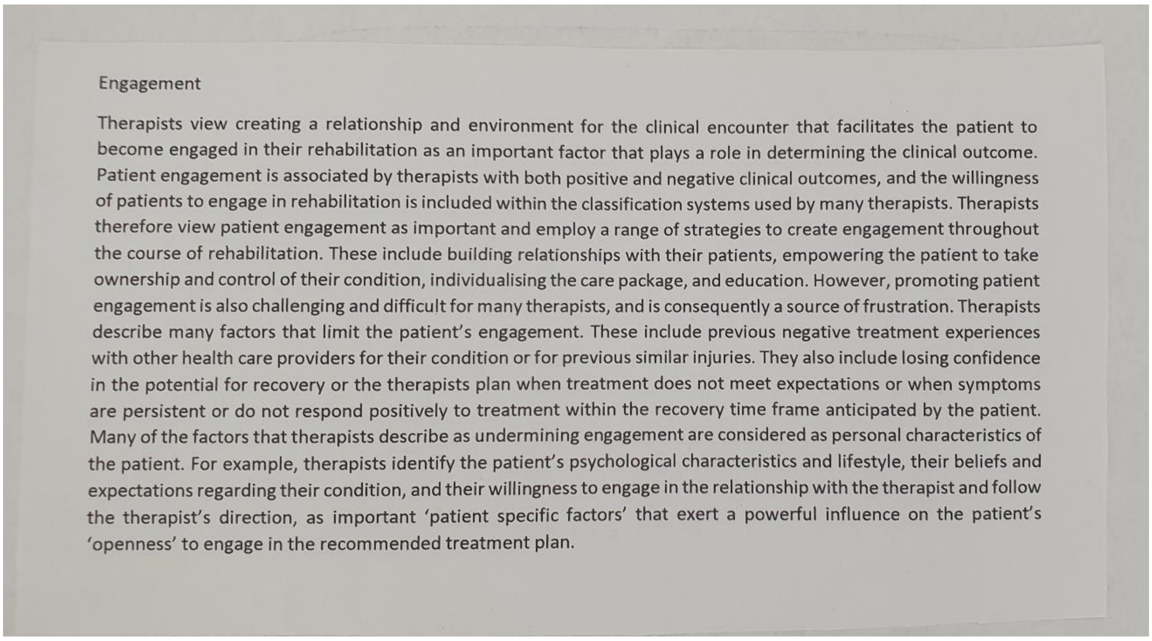
Name	Description
Educating	patients voice is missing in all of this
Biomedical	
Biopsychosocial	
Therapist Model Care	Therapists believe they ghave role to tell patients what they think the patient needs to know
More Ax	
Positive empowering experience	
Functional goal setting	Non-pain contingent goals - meaningful goals for the person i.e. reasons to get better values based goals
POSITIVE ROLE MODELLING	
Positive Rx experiences	
Promote patient confidence	
Provide strategies	
Reflective questioning	
Target lifestyle change	

Appendix 13: Mind flow diagram

Appendix 14: Thematic map

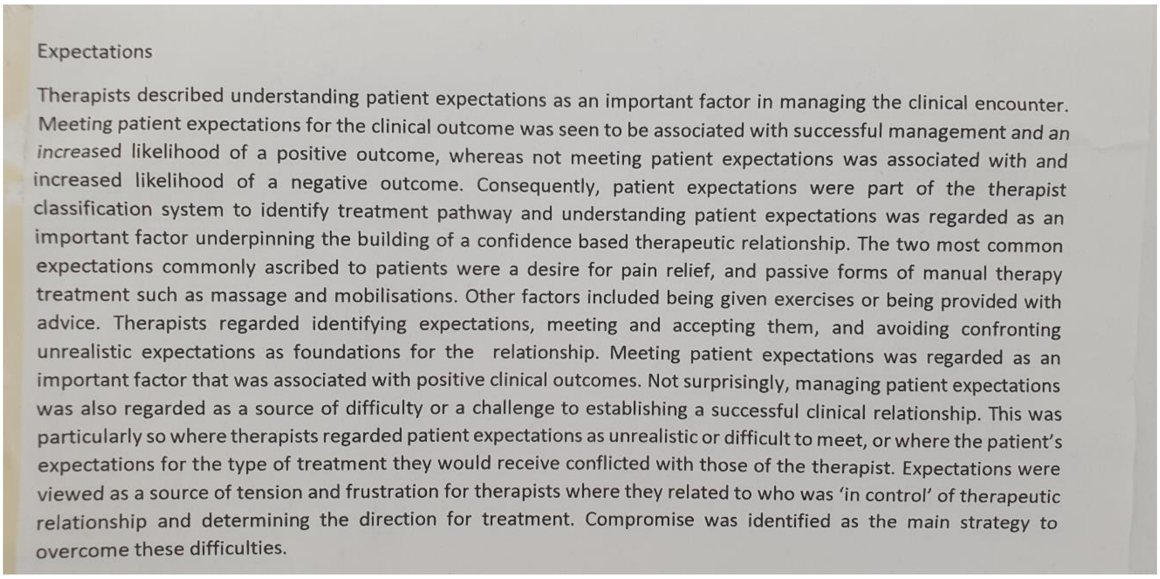


Appendix 15: Descriptions of theme key organizing concepts and conceptual boundaries.



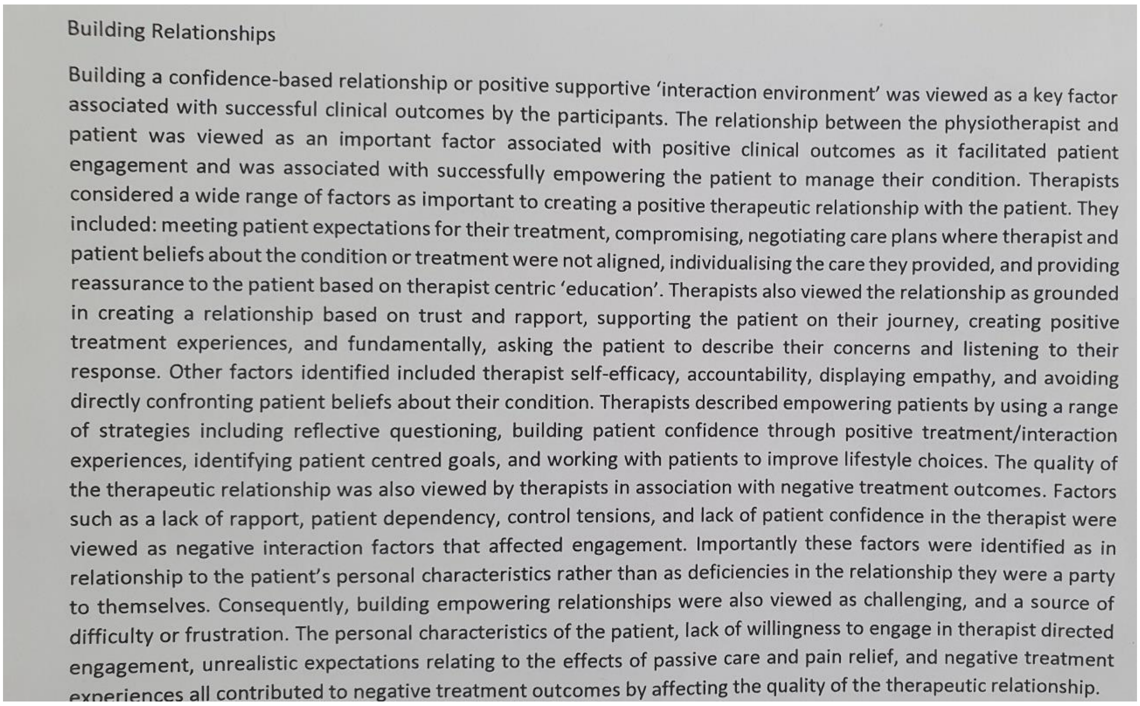
Engagement

Therapists view creating a relationship and environment for the clinical encounter that facilitates the patient to become engaged in their rehabilitation as an important factor that plays a role in determining the clinical outcome. Patient engagement is associated by therapists with both positive and negative clinical outcomes, and the willingness of patients to engage in rehabilitation is included within the classification systems used by many therapists. Therapists therefore view patient engagement as important and employ a range of strategies to create engagement throughout the course of rehabilitation. These include building relationships with their patients, empowering the patient to take ownership and control of their condition, individualising the care package, and education. However, promoting patient engagement is also challenging and difficult for many therapists, and is consequently a source of frustration. Therapists describe many factors that limit the patient’s engagement. These include previous negative treatment experiences with other health care providers for their condition or for previous similar injuries. They also include losing confidence in the potential for recovery or the therapists plan when treatment does not meet expectations or when symptoms are persistent or do not respond positively to treatment within the recovery time frame anticipated by the patient. Many of the factors that therapists describe as undermining engagement are considered as personal characteristics of the patient. For example, therapists identify the patient’s psychological characteristics and lifestyle, their beliefs and expectations regarding their condition, and their willingness to engage in the relationship with the therapist and follow the therapist’s direction, as important ‘patient specific factors’ that exert a powerful influence on the patient’s ‘openness’ to engage in the recommended treatment plan.



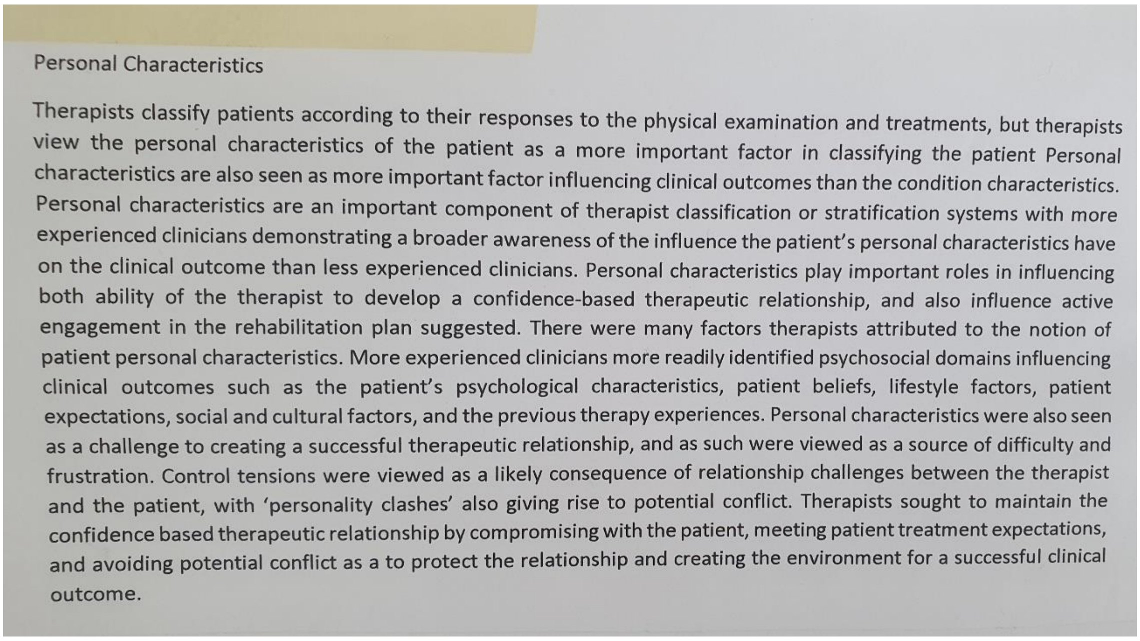
Expectations

Therapists described understanding patient expectations as an important factor in managing the clinical encounter. Meeting patient expectations for the clinical outcome was seen to be associated with successful management and an increased likelihood of a positive outcome, whereas not meeting patient expectations was associated with and increased likelihood of a negative outcome. Consequently, patient expectations were part of the therapist classification system to identify treatment pathway and understanding patient expectations was regarded as an important factor underpinning the building of a confidence based therapeutic relationship. The two most common expectations commonly ascribed to patients were a desire for pain relief, and passive forms of manual therapy treatment such as massage and mobilisations. Other factors included being given exercises or being provided with advice. Therapists regarded identifying expectations, meeting and accepting them, and avoiding confronting unrealistic expectations as foundations for the relationship. Meeting patient expectations was regarded as an important factor that was associated with positive clinical outcomes. Not surprisingly, managing patient expectations was also regarded as a source of difficulty or a challenge to establishing a successful clinical relationship. This was particularly so where therapists regarded patient expectations as unrealistic or difficult to meet, or where the patient’s expectations for the type of treatment they would receive conflicted with those of the therapist. Expectations were viewed as a source of tension and frustration for therapists where they related to who was ‘in control’ of therapeutic relationship and determining the direction for treatment. Compromise was identified as the main strategy to overcome these difficulties.



Building Relationships

Building a confidence-based relationship or positive supportive 'interaction environment' was viewed as a key factor associated with successful clinical outcomes by the participants. The relationship between the physiotherapist and patient was viewed as an important factor associated with positive clinical outcomes as it facilitated patient engagement and was associated with successfully empowering the patient to manage their condition. Therapists considered a wide range of factors as important to creating a positive therapeutic relationship with the patient. They included: meeting patient expectations for their treatment, compromising, negotiating care plans where therapist and patient beliefs about the condition or treatment were not aligned, individualising the care they provided, and providing reassurance to the patient based on therapist centric 'education'. Therapists also viewed the relationship as grounded in creating a relationship based on trust and rapport, supporting the patient on their journey, creating positive treatment experiences, and fundamentally, asking the patient to describe their concerns and listening to their response. Other factors identified included therapist self-efficacy, accountability, displaying empathy, and avoiding directly confronting patient beliefs about their condition. Therapists described empowering patients by using a range of strategies including reflective questioning, building patient confidence through positive treatment/interaction experiences, identifying patient centred goals, and working with patients to improve lifestyle choices. The quality of the therapeutic relationship was also viewed by therapists in association with negative treatment outcomes. Factors such as a lack of rapport, patient dependency, control tensions, and lack of patient confidence in the therapist were viewed as negative interaction factors that affected engagement. Importantly these factors were identified as in relationship to the patient's personal characteristics rather than as deficiencies in the relationship they were a party to themselves. Consequently, building empowering relationships were also viewed as challenging, and a source of difficulty or frustration. The personal characteristics of the patient, lack of willingness to engage in therapist directed engagement, unrealistic expectations relating to the effects of passive care and pain relief, and negative treatment experiences all contributed to negative treatment outcomes by affecting the quality of the therapeutic relationship.



Personal Characteristics

Therapists classify patients according to their responses to the physical examination and treatments, but therapists view the personal characteristics of the patient as a more important factor in classifying the patient Personal characteristics are also seen as more important factor influencing clinical outcomes than the condition characteristics. Personal characteristics are an important component of therapist classification or stratification systems with more experienced clinicians demonstrating a broader awareness of the influence the patient's personal characteristics have on the clinical outcome than less experienced clinicians. Personal characteristics play important roles in influencing both ability of the therapist to develop a confidence-based therapeutic relationship, and also influence active engagement in the rehabilitation plan suggested. There were many factors therapists attributed to the notion of patient personal characteristics. More experienced clinicians more readily identified psychosocial domains influencing clinical outcomes such as the patient's psychological characteristics, patient beliefs, lifestyle factors, patient expectations, social and cultural factors, and the previous therapy experiences. Personal characteristics were also seen as a challenge to creating a successful therapeutic relationship, and as such were viewed as a source of difficulty and frustration. Control tensions were viewed as a likely consequence of relationship challenges between the therapist and the patient, with 'personality clashes' also giving rise to potential conflict. Therapists sought to maintain the confidence based therapeutic relationship by compromising with the patient, meeting patient treatment expectations, and avoiding potential conflict as a to protect the relationship and creating the environment for a successful clinical outcome.