Mediating Physiotherapy: The Role and Impact of Body Communication in Private Practice

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Declaration

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgments), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signed: Clinton Good Date: 10th Feb 2020

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Transcription Guide

The following symbols and formatting are used throughout the thesis when quotes from participant interviews or the literature are provided:

Italics	Signifies the interviewer's speech
…	Indicates that words have been removed from the original transcript
[ ]	Denotes that additional words have been inserted by the researcher to clarify the meaning of a quote, or to provide contextual information.
‘ ’	Indicates a direct quote from a participant interview
“ ”	Signifies a quote within a participant interview excerpt

Ethics Approval

Ethical approval was gained from the Auckland University of Technology Ethics Committee on 11th December 2017 (Ethics Application Number: 17/417).

Abstract

Background: Body communication (traditionally known as non-verbal communication) is intrinsic to physiotherapy practice, and particularly in the private practice environment where drivers such as economics and consumerism can influence the pace, and by association, quality of body communication. Existing literature has focused primarily on verbal communication, with little attention given to body communication and in particular, consideration of how body communication influences and co-constructs the patient-physiotherapist interaction.

Aim: The aim of this qualitative study was to explore the key role and impact of body communication in private practice physiotherapy in New Zealand, focusing specifically on the interaction between patient and physiotherapist.

Methodology and methods: Interpretive Description informed by social constructionism was employed to frame this qualitative study exploring the role and impact of body communication in private practice physiotherapy in New Zealand. Two patient/physiotherapist dyads were recruited to the study. Sessions were observed and video-recorded and field notes were taken. Post-session video-stimulated recall, semi-structured interviews were undertaken and analysed for themes. Video-recorded data was analysed using part process analysis and thematic analysis.

Findings: Two themes were constructed. The first theme, *atmospheres matter* described how the physiotherapists' body communication played a key role in creating clinical atmospheres that shaped the relationship between patient and physiotherapist. The second theme, *tailoring physiotherapy practices*, highlighted how body communication was a medium through which physiotherapists tailored physiotherapy practices. The physiotherapist's skill at tailoring their practices to each patient's unique needs and

expectations was crucial in engaging patients in therapy and building the therapeutic relationship.

Discussion: Body communication played a crucial role in patient-physiotherapist interactions and significantly influenced the therapeutic process. Specifically, body communication mediated physiotherapy. That is, body communication could assist both the patient and physiotherapist to overcome challenging situations, or it could have potentiating effects, making conditions more positive (or negative). Consequently, increased awareness of body communication and the importance of its use will improve both the patient-physiotherapist relationship and treatment outcomes making it an important skill for physiotherapists to develop.

Conclusions: The findings provided detailed and nuanced accounts highlighting how sensitive and responsive body communication supported physiotherapists to implement a more person-centred approach to communication and enhance therapy outcomes.

Chapter One: Introduction

This thesis explores body communication in private practice physiotherapy. Within this thesis, I argue that body communication is central to physiotherapy practice and will present an Interpretive Descriptive study that examines this concept. I aim to develop a detailed and nuanced understanding of the role of body communication and how it impacts physiotherapy practice.

Within this chapter, I first provide an overview of physiotherapy within the New Zealand healthcare context and the private practice setting. I then introduce models of healthcare practice that inform the profession and have shaped physiotherapists' communication with patients. Next, I discuss my rationale for undertaking this study and introduce the research question and key terminology used. Lastly, I provide an overview of the thesis.

Physiotherapy in New Zealand

Physiotherapy is a frequent form of healthcare provided in the New Zealand healthcare sector, with services delivered within a publicly funded District Health Board (DHB) structure as well as in private practices located in urban and rural community settings (Physiotherapy Board of New Zealand, 2018). In 2018, of the total of 5,133 physiotherapists registered in New Zealand, 58% worked in private practice (Physiotherapy Board of New Zealand, 2018). In New Zealand, the profession requires a minimum university qualification of four years and registration with the Physiotherapy Board of New Zealand. Physiotherapy education includes in-depth training in assessment, diagnosis, and treatment of injuries and medical conditions and consists of a minimum of 1,000 hours of supervised clinical experience. The physiotherapy practice thresholds, which describe the threshold of competence for registration as a physiotherapist in New Zealand (Physiotherapy Board of

Australia and Physiotherapy Board of New Zealand, 2015), state that physiotherapists are required to consistently integrate and apply core biomedical knowledge of pathology, anatomy and physiology relevant to human health and function as well as skills, attitudes, and values independently and efficiently to a standard outlined by the Physiotherapy Board. As communicators, physiotherapists are expected to use 'clear, accurate, sensitive and effective communication to support the development of trust and rapport' in professional relationships with patients and to adapt their communication as appropriate to the situation or context (Physiotherapy Board of Australia and Physiotherapy Board of New Zealand, 2015, p. 18).

Private practice is the context for this research. As mentioned, private practice is the main practice setting for physiotherapists in New Zealand. Private practice physiotherapy has a long history in New Zealand, with services being offered principally in the area of musculoskeletal care (Reid, 2013). Musculoskeletal physiotherapists assess, diagnose, and manage disorders of the musculoskeletal system, namely, muscles, bones, joints, nerves, tendons, ligaments, cartilage, and spinal discs (Magee, Zachazewski, & Quillen, 2007). Physiotherapists use a variety of physiotherapeutic interventions such as exercise, movement, education, and a wide range of other 'hands-on' techniques, such as massage, manipulation, and therapeutic handling, to address impairments and activity limitations in individuals with musculoskeletal conditions (Jull et al., 2015; Sedgley, 2013). In recent years, the proportion of physiotherapists working in private practice has increased compared to those working in DHB settings (Physiotherapy Board of New Zealand, 2018), presumably due to the potential for physiotherapists to earn higher wages in the private sector (Taylor, 2008).

The Accident Compensation Corporation (ACC) has been a key driver in the growth of private practices in New Zealand (Laslett, 2009; Reid & Larmer, 2007; Taylor, 2008). The ACC is a no-fault compensation system that provides funding for all injuries resulting from

accidents and removes accident victims' right to seek legal resolutions (Anderson & Bowyer, 2012). The ACC scheme enables physiotherapists to act as autonomous practitioners to assess and treat patients through direct access without referral from physicians or other healthcare providers. Presently, most physiotherapy practices, within the musculoskeletal field, derive 70–80% of their funding from the ACC (Reid & Larmer, 2007). The other 20–30% of funding comes from private fee-paying patients. In both ACC and privately funded treatments, physiotherapists are often remunerated according to the number of patients they see daily. This funding structure creates a financial incentive for treating as many patients as possible in a limited time frame (Glasgow, 2019). From my experience working as a private practice physiotherapist, I am aware that session times range from 15 to 30 minutes with an average treatment time of 20 minutes. Within this time frame, physiotherapists need to obtain a verbal history, perform testing and deliver treatment (Delany, 2007). It is recognised that time-pressure can challenge how physiotherapists communicate with patients (Praestegaard & Gard, 2011) and can have detrimental effects upon treatment outcomes, including patient satisfaction and retention (Dugdale, Epstein, & Pantilat, 1999), meaning that it is important to consider communication within the private practice context specifically.

Models of Health Care Practice

In recent years, the idea of the patient being at the centre of his or her healthcare decisions has developed and gained momentum, and it is now widely considered the benchmark for health care globally (Epstein & Street, 2011). Person-centred care calls for care that is 'respectful of and responsive to individual patient preferences, needs, and values, and ensures that patient values guide all clinical decisions' (Corrigan, 2005, p. 6). The attributes of person-centred care go well beyond knowing the patient's physical problem and how this impacts treatment (Millenson, 2006) and requires knowing the patient as a person including their psychosocial context and engaging the patient as an active participant in his or

her own care (Epstein, Fiscella, Lesser, & Stange, 2010). These attributes are critical to providing tailored care that is attuned to the needs of the individual patient (Epstein et al., 2010). In physiotherapy, Cooper, Smith, and Hancock (2008) identified that for patients receiving physiotherapy for treatment of chronic low back pain, person-centred care helped physiotherapists understand and respond to their patients' needs more effectively. Person-centred care is required by the New Zealand Physiotherapy Practice Guidelines (Physiotherapy Board of New Zealand, 2018) and has been described as a 'moral philosophy' for healthcare professionals to ensure effective healthcare (Epstein et al., 2005, p. 1517).

Person-centred care contrasts with the biomedical model, which has traditionally guided patient care. The biomedical model is characterised by a reductionist approach that focuses solely on the biological reasons for a particular disease and considers psychosocial influences as a separate and unrelated set of problems (Wade & Halligan, 2017). Inherent to the practice of biomedicine is prioritising the expert professional knowledge of the clinician over the patient's perspectives (Epstein et al., 2010). The biomedical model, which remains influential in healthcare contexts, is also embedded in how physiotherapists think about and view healthcare and is still central to physiotherapy's theoretical and practical approach (Nicholls & Gibson, 2010). For example, physiotherapists tend to view exercising their technical skills and clinical expertise as the most legitimate way to spend their time (Mudge, Stretton, & Kayes, 2014), as demonstrated by the weight given to evidence from randomized controlled trials or systematic reviews (Herbert, Jamtvedt, Hagen, Mead, & Chalmers, 2011) and the time devoted to mastering technical skills in physiotherapy training (Heaney, Green, Rostron, & Walker, 2012). Less interest and importance are given to the relational aspects of care, including communication skills (Mudge et al., 2014; Reynolds, 1996). The lack of interest and importance placed on communication in physiotherapy is surprising given that

physiotherapists spend most of their time interacting with patients, which means that strong communication skills are vital (Parry, 2005).

My Journey to the Research Area

Despite the importance of communication to physiotherapy, as mentioned, physiotherapy training has tended to focus on the technical aspects of care, including hands-on interventions and exercise prescription (Henderson, 2011; Parry, 2005). When I graduated as a physiotherapist in 2003, I believed that physiotherapy was solely a technical field. At this time, I had very little knowledge or interest in improving my communication skills. In 2009, I completed a Post-Graduate Diploma of Manipulative Physiotherapy, a clinically-based qualification devoted almost entirely to learning technical skills, physiology and anatomy, and obtaining quantifiable outcomes. This postgraduate study improved my clinical reasoning and technical skills, but there still seemed to be something missing in my practice. I observed less qualified colleagues carrying out the same treatments that I provided, but their patients appeared to experience better results and were more satisfied with the care they received, evident as they returned for several follow up appointments. However, I still felt that I could obtain better patient outcomes by building my technical expertise. Despite adding a Graduate Certificate in Sports Physiotherapy to my resume in 2014, I experienced a growing dissatisfaction with private practice and felt something was lacking as I was failing to achieve improved outcomes for my patients. On reflection, I recognised that communication with patients was a vital medium through which the patient could be engaged and empowered to take an active role in their recovery and thereby optimise treatment outcomes.

I first developed an interest in body communication after one specific treatment session. I was performing a joint mobilisation technique on a patient with neck pain, focusing on the technical aspects of movement, including my direction of force and the speed of

movement. I felt that my technique was good, but I noticed a subtle physical resistance from the patient. However, believing I was the expert, I focused on completing the technique, ignoring the patient's bodily reaction to my treatment. Following treatment, I asked the patient to schedule another appointment in one week, which he did. The following week, I noted he had cancelled his follow-up appointment. I contacted him to find out how things were going. He reported feeling pummelled and prodded during our last treatment and subsequently feeling a lot worse. He did not want to have the same experience again and understandably cancelled his follow-up appointment.

In retrospect, I delivered my care at an objective and biomedical level, with little attention to the patient's experience or contribution to treatment. This encounter highlighted to me that treatment was not something that a physiotherapist does *to* the patient, but something that is co-constructed *with* the patient and treatment could be a form of communication between the patient and physiotherapist. The patient's bodily reactions to my treatment conveyed subtle yet vital information about his condition and his responses to my treatment. By ignoring his body communication, I compromised my ability to understand my patient's condition fully and provide tailored care, leaving him unsatisfied and unwilling to return for follow-up treatment. This made me wonder if I could enhance my interactions with patients, and subsequently, their outcomes, by being more aware of body communication. However, when I began exploring the existing literature around body communication in physiotherapy, there was limited research to guide me on how to develop my skills. I wondered why this aspect of communication had been seldom explored when it had the potential to enhance interaction between patient and physiotherapist and, by extension, physiotherapy care and practice.

Thus, my interest and influence on the research topic derive from my clinical experience and formal education, as well as my current physiotherapy role, where I am often

supporting junior physiotherapists in developing their practice. This thesis details the formal exploration that followed my initial reflections about body communication.

Researcher's Assumptions

While my previous experience has been fundamental in shaping my research process and indeed provides part of the 'scaffold' for an Interpretive Description study (Thorne, Stephens, & Truant, 2016), these experiences can bring assumptions. As the researcher in this qualitative study, I must state the assumptions from which I undertook this study and analysed the data. This is termed 'positioning' the researcher and is a component of 'reflexivity' (Finlay, 2003). Describing my assumptions provides readers with an understanding of how my own experience might have influenced the research process. Positioning promotes transparency and encourages a trustworthy and ethical process (Corlett & Mavin, 2017). My assumptions were made explicit in a pre-assumptions interview carried out on 11 January 2018 with an experienced healthcare researcher. As an experienced musculoskeletal physiotherapist, I had particular assumptions about what constituted 'good' communication. I started with an assumption (based on my private practice experience and understanding of the literature) that communication should be person-centred—that is, communication should be closely congruent with and responsive to patients' needs, preferences, and expectations. By making this assumption explicit and discussing it with my supervisors, I was able to reduce the potential for this assumption to influence my data collection (this is detailed further in my Discussion chapter).

Focus and Significance of the Study

The study explores body communication in physiotherapy private practice through examination of in-depth and nuanced accounts of what occurs during patient–physiotherapist interactions to address the following research question:

What are the role and impact of body communication in a New Zealand private practice physiotherapy setting?

By exploring the complexities of body communication both in practice and through a review of the literature, I hope to help other physiotherapists to develop their skills and language to reflect on body communication in their practices. I anticipate that patients will benefit from physiotherapists' greater knowledge of body communication by receiving treatment more tailored to their unique needs. Furthermore, this study will contribute to the understanding of patient–physiotherapist communication within the New Zealand context but will arguably have clinical applications more broadly within healthcare.

Terminology

Despite a paucity of literature investigating this topic, different terms have been used; for clarity, the following key terms will be used in this research:

Body communication: This study will use the term body communication to denote communication achieved by means other than words. Body communication includes touch, proxemics, facial expression and eye contact, body movement, gesture, posture, the prosody of voice (rhythm and intonation) and the use of time and space (Hargreaves, 1982; Silverman, Kurtz, & Draper, 2016). Proxemics involves aspects of personal distance and the environment, such as how far two people stand from one another when they are interacting and any objects, such as a desk, chair or table, that could influence communication between individuals (Petitpas & Cornelius, 2004). Proxemics has particular significance in physiotherapy in that many treatments are carried out by the therapist in proximity to the patient.

Body communication was used instead of non-verbal communication because the term non-verbal has a negative implication, namely that non-verbal lacks a quality possessed

by the verbal – that it is somehow subordinate to verbal communication (Thornquist, 1991). Because of the key role body communication plays in enabling physiotherapists to carry out their work (Ek, 1991; Mattsson, Wikman, Dahlgren, & Mattsson, 2000; Nicholls & Gibson, 2010), I have chosen to use the more positive and descriptive term.

Patient: When referring to individuals that receive physiotherapy care, physiotherapists and researchers often use the terms 'patient' and 'client' (Deber, Kraetschmer, Urowitz, & Sharpe, 2005). There is debate about the appropriate term to describe those who seek health services (Hiller, 2017). The term patient comes from the Latin word meaning 'to suffer'. Moreover, the term patient is closely related to the word 'passive'. Hence, some therapists and theorists avoid this term as it can portray the sick person as a passive recipient of the therapist's treatment (Leder & Krucoff, 2008). However, the term client has undertones of a business contract where a person in need pays a professional person for services (Deber et al., 2005). Throughout this thesis, I have opted to use the term patient because research has shown that seekers of healthcare generally prefer this term over other alternatives (Deber et al., 2005).

Thesis structure

Chapter One has introduced the topic of body communication and the background to this study.

Chapter Two, the Literature Review, presents and critically considers the existing research relating to body communication in physiotherapy practice. It will highlight the limitations of these studies and provide a more comprehensive rationale for exploring the above research question.

Chapter Three, Methodology and Methods, will introduce Interpretive Description, the qualitative methodology used for this research. It will detail the research methods,

including the participant recruitment, data collection, and data analysis phases of the study, and will specify how rigor and ethical standards were maintained.

Chapter Four, the Findings, presents two themes and associated subthemes constructed from the data. These themes encapsulate the key roles and impact of body communication in private practice physiotherapy encounters.

Chapter Five, the Discussion, first discusses three key findings within the context of relevant literature and then considers implications for clinical practice. The study's limitations, recommendations for future research, and conclusions will then be presented.

Chapter Two: Literature Review

This chapter provides an overview of the literature exploring communication in physiotherapy. First, healthcare communication models are summarised to demonstrate why body communication is essential to consider in physiotherapy. This overview is followed by a systematic review and qualitative synthesis of the limited body of literature that has examined body communication in physiotherapy practice. Finally, the core gaps in knowledge about body communication in physiotherapy settings are identified, and their significance is justified.

Communication Models in Healthcare

Communication is an integral part of any healthcare practice (Street, Makoul, Arora, & Epstein, 2009; Vermeir et al., 2015). The process of communication is not a passive one-way transfer of information from one person *to* another, but an active, co-construction of meaning *between* people (Gergen, 1985). Effective communication is fundamental to building a therapeutic patient–clinician relationship (Ha & Longnecker, 2010) and crucial for clinicians to master in practice to optimise efficiency and effectiveness of care (Mauksch, Dugdale, Dodson, & Epstein, 2008). In physiotherapy, systematic reviews demonstrate that effective communication can reduce pain and disability and enhance patient satisfaction (Hall, Ferreira, Maher, Latimer, & Ferreira, 2010; Klaber Moffett & Richardson, 1997; O'Keeffe et al., 2016; Oliveira et al., 2012). However, what constitutes ‘effective’ communication is not clearly established. Some have argued that a person-centred approach should provide the guiding framework for how physiotherapists communicate with their patients (Hiller et al., 2015; Pinto et al., 2012; Sanders, Foster, Bishop, & Ong, 2013). The argument for this approach reflects a growing emphasis on person-centred care more broadly in healthcare (Ekman et al., 2011; Roter et al., 1997), as discussed in Chapter One.

Within a person-centred approach, clinicians use communication to demonstrate respect for and inclusion of the patient's perspective on his or her illness (Hiller et al., 2015; Zoffmann, Harder, & Kirkevold, 2008). Features of person-centred communication include sharing information, decision-making, power, responsibility and responding to the physical *and* emotional aspects of the person's experience (Bensing, Visser, & Saan, 2001; Mead & Bower, 2000). Implementing person-centred communication therefore means that clinicians use communicative strategies to elicit and incorporate their patients' perspectives to shape and inform their encounters (Ekman et al., 2011; Hiller et al., 2015). Specific communicative strategies may include using non-directive and open-ended questions (Epstein & Street, 2011; Mead & Bower, 2000), and taking time to listen and promote the patient's engagement in therapy (Dugdale et al., 1999). Physiotherapists need to work collaboratively with patients over numerous sessions, continually reassessing them and adjusting their treatment to ensure successful clinical outcomes (Besley, Kayes, & McPherson, 2011), which highlights the need for physiotherapists to have well-developed person-centred communication skills.

Clinician-centred communication is the traditional communication model for healthcare consultations (McCollum & Pincus, 2009; Murad, Chatterley, & Guirguis, 2014) and aligns with the biomedical model (Roter et al., 1997; Wade & Halligan, 2004). Clinician-centred communication may see that clinicians focus on the biological determinants, causes, and explanations for the presenting condition with less consideration of the patient's emotions, experiences, and context (Hiller & Delany, 2018). Communicative features of a clinician-centred model may include specific, structured, closed, and direct questions from the practitioner (Roter et al., 1997) and a focus on verbal communication (Hydén & Peolsson, 2002). A characteristic of clinician-centred communication is an imbalance of power between the clinician and patient, where the clinician controls the interaction, determining what is discussed, known, and done (Bright, Cummins, Waterworth, Gibson, & Larmer, 2019).

Communication Practices in Physiotherapy

Although person-centred physiotherapy practices exist, communication in physiotherapy encounters is predominantly clinician-centred (Hiller et al., 2015; Nicholls & Gibson, 2010; Stenner, Palmer, & Hammond, 2019; Thornquist, 2006). For example, research has demonstrated physiotherapists control goal-setting (Parry, 2004), talk significantly more than their patients (Gallois et al., 1979; Perry, 1975; Roberts & Bucksey, 2007), and pay little attention to psychosocial aspects of their patients' conditions (Reunanen, Talvitie, Järvikoski, Pyöriä, & Härkäpää, 2016; Thing, 2005). Some research suggests there may be a mismatch between the dominant models of communication in physiotherapy practice and the needs, expectations, and preferences of patients. For example, Josephson, Woodward-Kron, Delany, and Hiller (2015) suggested that patients engaged with physiotherapists from a clinical and relational perspective, but physiotherapists engaged purely from a clinical perspective, focusing on task-based physiotherapy work, and were more comfortable with using technical language that was congruent with progress and the achievement of clinical outcomes.

While physiotherapists acknowledge the need to address the 'whole' person when communicating with patients (Wijma, van Wilgen, Meeus, & Nijs, 2016), as outlined above, they still tend to focus on physical factors and neglect psychosocial factors, possibly because they are well-trained and confident to deal with the objective and rational but feel ill-equipped to handle the subjective and emotional (Greenfield, Keough, Lynn, Little, & Portela, 2010). In volume-driven, fee-for-service private practice clinics, where time may be limited, as mentioned in Chapter One, physiotherapists may perceive that they do not have time to seek the patient's perspective, finding it more comfortable to adopt a clinician-centred approach where they can control the conversational agenda (Praestegaard & Gard, 2011). Moreover, although physiotherapy practice guidelines require person-centred communication

(Physiotherapy Board of New Zealand, 2018), there is relatively little understanding of what constitutes person-centred communication in physiotherapy (Sanders, Foster, Bishop, & Ong, 2013).

Neglecting person-centred communication can have unintended consequences for physiotherapists and their patients. For example, if clinicians dominate consultations, this can lead to disjointed communication and a failure to understand the patient's expressed needs, preferences, and concerns (Judson, Detsky, & Press, 2013). Furthermore, patients feel disengaged from therapy when physiotherapists neglect the psychosocial aspects of injury (Thing, 2005) but experience physiotherapy as more meaningful when physiotherapists attend to these aspects during rehabilitation (Crepeau, 2016). Moreover, physiotherapists who failed to actively listen to patients with chronic low back pain and communicate about the psychosocial aspects of their condition left patients feeling angry and frustrated with their rehabilitation (Slade, Molloy, & Keating, 2009). Ramsden (1968) warned of the consequences of neglecting a person-centred approach long ago when he expressed, 'Failure to cope with the patients' emotional needs may not only mean that we are doing half a job but may also undermine the physical aspects of treatment' (Ramsden, 1968, p 1168.). With more patients attending physiotherapy with complex, chronic musculoskeletal pain, the need for physiotherapists to attend to the psychosocial dimensions of a person's condition alongside the physical is underscored by numerous studies showing the interconnectedness of these dimensions in patients with these conditions (Bergbom, Boersma, Overmeer, & Linton, 2011; Linton, 2000; Nicholas, Linton, Watson, Main, & Group, 2011; O'Sullivan, Caneiro, O'Keeffe, & O'Sullivan, 2016; Shaw, Campbell, Nelson, Main, & Linton, 2013).

Body Communication in Physiotherapy Practice

Several authors have highlighted the intrinsic relationship between physiotherapy and the body as a communicative medium (Ek, 1991; Engelsrud, Nordtug, & Øien, 2018; Mattsson et al., 2000; Nicholls & Gibson, 2010). Body communication comprises a significant part of patient–physiotherapist interactions (Perry, 1975; Roberts & Bucksey, 2007), and it is through and with the body that our treatments are often delivered (Ek, 1991; Mattsson et al., 2000; Nicholls & Gibson, 2010). Because of its physical nature, body communication may be even more important in a physiotherapy session than it might be in some other kinds of face-to-face interaction. For example, gestures and gaze play an essential role in expressing feedback on the performance of exercises, and body positioning and therapeutic touch are critical in carrying out hands-on techniques (Ek, 1991). Furthermore, body communication may provide a means for physiotherapists to understand the patient's emotional experience of injury (Crepeau, 2016) and enable them to convey empathy and understanding (Grzybowski, Stewart, & Weston, 1992). Body communication may therefore support physiotherapists in communicating in a more person-centred manner, as it can help create an emotionally supportive treatment environment. Body communication may be particularly crucial for physiotherapists working in private practice, as verbal communication is often compressed due to time limitations and the fast pace of therapy (Fenety, Harman, Hoens, & Bassett, 2009), meaning that patients and physiotherapists may communicate key information bodily.

Despite the importance of body communication in a profession whose fundamental objectives are achieved through and with the body, as I will demonstrate in the review below, there has been limited empirical interest in body communication as a basis for, or aspect of, communication. Most of the available literature has arisen indirectly from studies focused on verbal communication, and the information that does exist lacks the detail to enable

meaningful practical application. The lack of information on body communication may be related to the difficulties in studying this concept. For example, based on recall of body communication during patient–physiotherapist interactions, Perry (1975) found that physiotherapists were only aware of their non-verbal behaviour 50% of the time. Body communication would therefore seem to be a crucial area of physiotherapy practice that demands attention to make this tacit knowledge explicit and to support clinicians in becoming more aware and reflective (Ajjawi & Higgs, 2012). More knowledge about body communication may enable physiotherapists to promote greater patient engagement and, by association, successful outcomes and consumer experiences.

A Qualitative Synthesis Examining Body Communication in Patient-Physiotherapist Interactions

To ensure my research was grounded within the existing knowledge of body communication in physiotherapy practice, I undertook a qualitative synthesis of the literature, utilising the principles of systematic review. The specific aim of the review was to develop detailed knowledge of the core components and functions of body communication and to identify areas for future research.

Method

Inclusion/exclusion criteria. Preliminary scoping of the literature identified few papers investigating body communication in private practice settings. The search was therefore expanded to incorporate all physiotherapy settings (including neurological, cardiorespiratory, psychiatric, inpatient, and outpatient and community settings). Qualitative research was included in the review if it met any of the following criteria:

1. The study contained descriptions of body communication between patients and physiotherapists in the form of quotations from the original data (Major & Savin-Baden, 2010).
2. The study discussed the role of body communication in physiotherapy practice based on interviews or observational studies.
3. The study contained descriptions of body communication from the perspective of either the patient or the physiotherapist in the form of quotations from the original data.

Qualitative research was excluded from the review if:

1. The study was a commentary or opinion piece (to ensure the review was based on empirical evidence).
2. The study was published in any language other than English.
3. The study included interaction within groups of people, simulated interactions, or interactions with family or relatives of the patient.
4. The study described a participant's body communication but did not contain a direct reference to body communication in the analysis section, i.e., body communication was not a direct and significant finding of the research.
5. The study only explored body movement from a performative perspective (not a communicative perspective).
6. The study was conducted in a paediatric population.

Any qualitative design was included, such as phenomenology, grounded theory, or ethnography. Data collection approaches included were observational, interview, or focus group studies. Given the cumulative nature and the relative stability of communication

behaviours, no limits were set regarding how long ago evidence was published (Parry & Land, 2013). I assessed retrieved titles and abstracts against the inclusion criteria. My primary supervisor (FB) reviewed any studies that remained unclear in terms of their eligibility for inclusion.

Search strategy. The services of a librarian were sought to assist with formulating search terms (Briner, 2012). Preliminary scoping of the literature revealed that touch was a key component of communication during patient–physiotherapist interaction. Hence, this was included as a search term. The search strategy was tailored to each database. The search terms were:

"physical therap*" OR physiotherap*

AND within five words of

communicat* OR interact* OR "non-verbal" OR "nonverbal" OR "bod* communicat*" OR touch*.

These terms were searched for in the title, abstract, and keyword fields. For the OVID databases, I combined the medical subject heading (MeSH) keywords touch OR "tactual perception" OR "cutaneous sense" OR "physical contact" OR communication OR "or nonverbal communication" OR "interpersonal communication" OR "communication skills" OR "emotional content" OR interaction OR social interaction OR social behavior OR interpersonal interaction OR physical contact AND physiotherapy or "physical therapy."

The databases utilised were EBSCO Health Databases (including the Cumulative Index to Nursing and Allied Health Literature, MEDLINE, and the Psychology and Behavioral Sciences Collection); OVID databases (including OVID Medline and PsychINFO), Web of Science, and SCOPUS. Additionally, I searched for publications from sources including the Critical Physio Network website and ResearchGate and emailed

prominent researchers in the field to ensure I did not miss relevant research. Once I had identified papers from these sources, citation searching was used (Parry and Land, 2013). Citation searching involved scrutinizing the reference lists and searching for potentially relevant papers amongst citations of these using the Google Scholar database. The literature search of relevant studies was first performed in June 2017, and a search update was conducted in November 2019. Electronic database search results were downloaded to the online reference management software Endnote, which allowed checking for and removal of duplicates and maintenance of different folders for initial searches, and for included and excluded papers.

Figure 1 illustrates the search and screening process. The search retrieved 6,266 references after duplicates were removed. Titles and abstracts were screened for relevance, with 166 potentially meeting the inclusion criteria for this review. The full text of these studies was retrieved and read; 30 studies met the inclusion criteria. The main reasons for exclusion were that:

- Articles did not include analysis of body communication within their results (n=88);
- Body communication was not within a patient–physiotherapist interaction (n=23), i.e., it was another healthcare interaction; or
- Articles were reviews or commentaries (n=9).

Articles selected for retrieval were appraised using the Critical Appraisal Skills Programme (CASP) qualitative research checklist (Critical Skills Appraisal Programme, 2010).

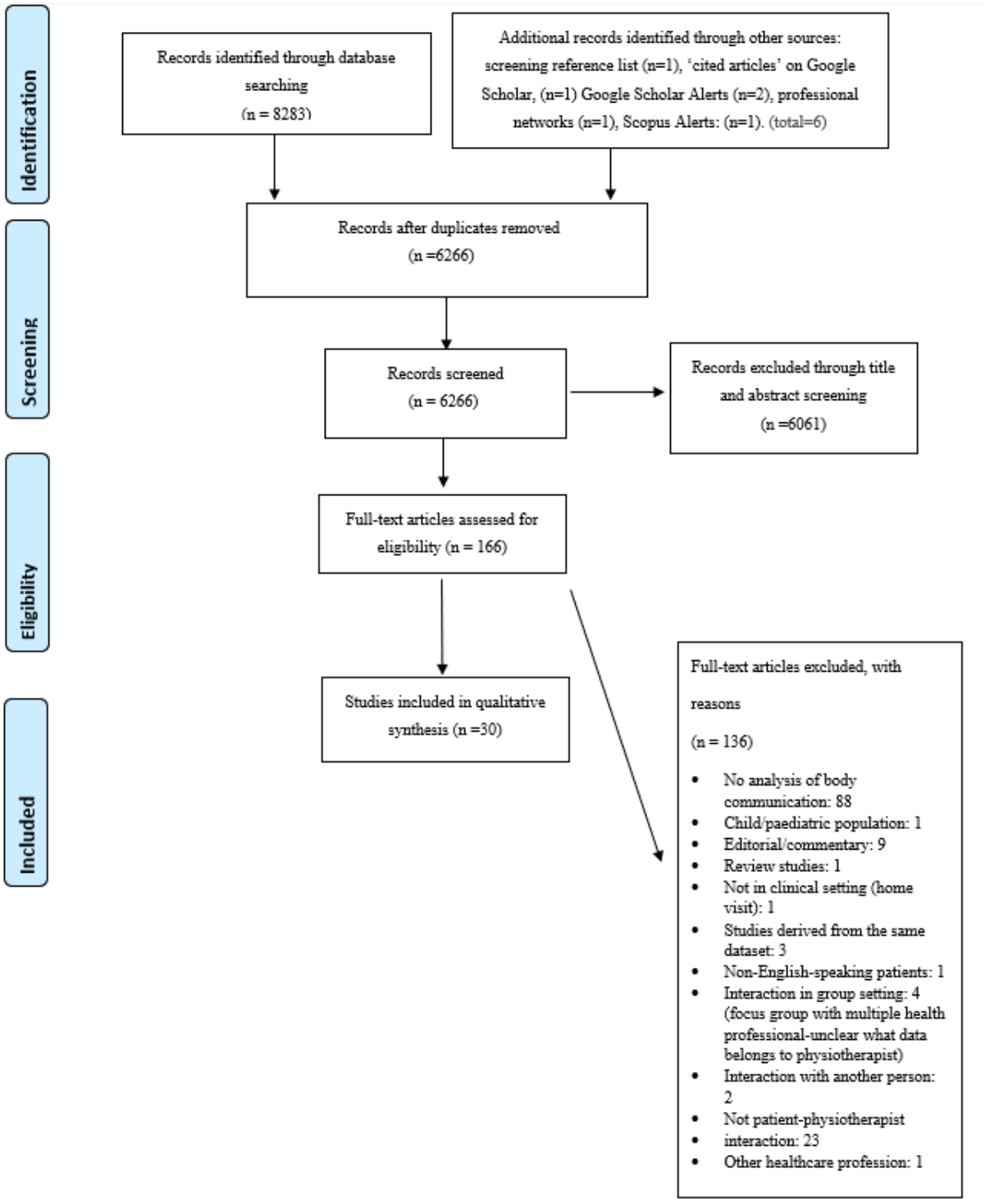


Figure 1. Study selection flow diagram

Data synthesis. The articles selected revealed that literature about body communication was fragmented and buried within studies that focused on verbal communication. A qualitative synthesis was undertaken as a way of integrating the existing information (Major & Savin-Baden, 2010). The synthesis aimed to explore and interpret themes related to body communication between patients and physiotherapists, as identified in qualitative studies. Following Popay et al. (2006), the qualitative synthesis was conducted in several stages. Following the selection of studies, data extraction, and study quality appraisal, relevant quotes and extracts were identified and tabulated using NVivo11, a qualitative data analysis computer software package (QSR International, Melbourne). Mind maps were used to help reduce, change, and focus the synthesis (Arai et al., 2007). This review was ongoing throughout the data collection, data analysis, and writing phases of the study. The key data extracted from each study is described in Table 1.

Table 1. Summary of key information extracted from each study

Reference	**Methodology**	**Purpose/aim**	**Setting(s)**	**Participants**	**Methods**	**Key interpretation(s) related to body communication**	**Study quality (CASP scores and key weaknesses)**
Bjorbækmo and Mengshoel (2016)	Phenomenology	To explore the meaning and significance of touch in physiotherapy practice	Private musculoskeletal settings in Norway	Nine patients with chronic neck pain and nine physiotherapists (no indication about age or years of clinical experience)	16 observations and interviews	Through touch physiotherapists and patients communicate to create understanding and perform therapy.	8/9 Only focused on the first encounter Not video-recorded
Buhl and Pallesen (2015)	Phenomenology	To explore the experiences of physiotherapists in early rehabilitation who face challenges in facilitating and promoting participation of the severe acquired brain injury patient	Intensive care settings in Denmark	One physiotherapist of six years' experience	Five semi-structured interviews and a focus-group interview	Body communication (through gestures and facial expressions for example) was crucial to the patient's ability to participate in the encounter	8/9 Insufficient details on ethical procedures

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Chowdhury and Bjorbækmo (2017)	Phenomenology	To examine one physiotherapy encounter, focusing on the lived experience of the physiotherapist collaborating with his patient throughout the first session	Private musculoskeletal clinics in Norway	One male physiotherapist (the first author) and his female patient	Observation of patient-therapist interaction	Physiotherapists need to have an awareness of often subtle nonverbal cues from the patient. Highlights the importance of flexibility and responsiveness in practice	8/9 Insufficient detail of ethical procedures
Crepeau (2016)	Narrative traditions using recollection and writing to explore her own rehabilitation experience	To illuminate the importance of patient care and explicate the impact of attention on my recovery	Outpatient musculoskeletal clinic in America	The author drew on her own recollections and writing to explore her rehabilitation experience	The paper uses vignettes to illustrate attention in patient-practitioner interaction	The study details aspects of body communication which convey the physiotherapist's attention as well as the impact of attention and inattention	9/9 Body communication not video-recorded

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Ekerholt and Bergland (2004)	Grounded theory	To elucidate patients' experiences of the examination of the body given in Norwegian Psychomotor Physiotherapy (NPMP)	Outpatient psychiatric hospital in Norway	10 patients, age range from 41 and 65 years (nine females, one male)	Semi-structured interviews	Described that body communication often occurred between the patient and physiotherapist's bodies Understanding of the patient's bodily symptoms occurred collaboratively	8/9 The relationship between researcher and participants was not adequately considered
Ekerholt and Bergland (2006)	Grounded theory	To elucidate patients' experiences of the massage given in a body therapy in NPMP	Outpatient psychiatric hospital in Norway	10 patients, age range from 41 and 65 years (nine females, one male) (note: same characteristics as for Ekerholt and Bergland (2004))	Semi-structured interviews	Massage places emphasis on the body as a source of information and enables the possibility for mutual understanding	8/9 The relationship between researcher and participants was not adequately considered

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Ekerholt and Bergland (2008)	Grounded theory	To elucidate patients' experiences of breathing during therapeutic processes in NPMP	Outpatient psychiatric hospital in Norway	10 patients, age range from 41 and 65 years (nine females, one male) (note: same characteristics as for Ekerholt and Bergland (2004))	Semi-structured interviews	Body communication (through breathing) was important to the patient's understanding of their problems and ways to improve	8/9 The relationship between researcher and participants was not adequately considered
Eriksson, Ekenberg, and Melander-Wikman (2012)	No statement on philosophical tradition or methodology	To describe physiotherapist's experiences of shoulder palpation	Outpatient and inpatient care services at a hospital in Sweden	Seven physiotherapists, age range 37 to 66; included mix of females and males, range clinical practice experience 7 – 35 years	Focus group interviews	Touch confirms the patient's experience and connects patients and physiotherapists	8/9 Ethical procedures unclear

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Fenety et al. (2009)	No statement on philosophical tradition or methodology	To explore physiotherapists' informed consent practices in the treatment of clients with low back pain	Musculoskeletal outpatient settings in Canada	44 physiotherapists; 36 females; 8 males, range clinical practice experience 0.5–38 years	Focus group interviews	The patient's posture, movements and facial expression implied consent or its withdrawal. Authors referred to this process as 'embodied consent'	6/9 The relationship between researcher and participants was not adequately considered Insufficient detail of ethical procedures Insufficient detail of research design

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Gyllensten, Gard, Salford, and Ekdahl (1999)	Qualitative case study with cross case analysis	To investigate what factors experts in psychiatric physiotherapy believed to be important in the interaction between the patient and the physiotherapist	Psychiatric physiotherapists in multiple settings including community care practice and primary care in Sweden	11 psychiatric physiotherapists, two males and nine females, age range 31 to 61, average of 19 years (range 6–40 years) of clinical practice experience and had worked in psychiatric physiotherapy for an average of 16 years (range 6–28 years)	Audio-taped Interviews	By using body communication, the physiotherapist can make the client feel secure and reinforce the therapeutic relationship	6/9 The relationship between researcher and participants was not adequately considered. Insufficient detail of ethical procedures

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Harman, Bassett, Fenety, and Hoens (2011)	No statement on philosophical tradition or methodology	To explore, patient education provided by physiotherapists in private practice who treat injured workers with subacute low back pain	Private musculoskeletal practices in Canada	44 physiotherapists, 36 females, eight males, average of 17.5 years' experience (range: 0.5–38 years)	Focus group interviews	Physiotherapists described using tactile information to extend their understanding of their patients' conditions as well as to provide reassurance	7/9 Insufficient detail of research design
Helm, Kinfu, Kline, and Zappile (1997)	No statement on philosophical tradition or methodology	The factors influencing physiotherapist's acquisition of touching style	Various inpatient acute and rehabilitation settings in America	40 physiotherapists: 12 working in hospital settings, 10 working in private practice, five in nursing home, three in home health care and one each in both a school and university	Phone interview	Physiotherapists described attuning to patient's body communication to adjust their therapeutic approach	7/9 Insufficient detail of research design

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Hiller et al. (2015)	Ethnography and grounded theory	How patients and physiotherapists interact in private practice; how the research findings related to healthcare interaction approaches	Private practice settings in Melbourne, Australia	Nine physiotherapists, five females, four males with a mean of 12 years' clinical practice experience; range 1.5-28 years	Field notes and audio-recordings of observations and interviews.	Physiotherapists incorporated adaptive communication such as eye contact, body language, and touch into their interactions with patients. Were responsive to individual patient characteristics and functioned to build rapport	8/9 Body communication not video-recorded

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Houston-McMillan (1988)	Personal narrative	To explicate the authors subjective experience of physiotherapy during her time as a patient in intensive care unit (ICU)	Inpatient hospital setting in South Africa	The author drew on her own experiences in ICU following a serious accident	Personal narrative	The importance of physical closeness including eye contact, touch, tone of voice in conveying acceptance of a physically damaged patient This was also important in conveying equality in the relationship between patient and physiotherapist	7/9 Insufficient detail of research design

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Jamarim, da Silva, de Abreu Lima, Siqueira, and Campos (2019)	Exploratory case study	To explore the types of touch and their meaning for physiotherapists working in hospital settings	Outpatient hospital settings in Brazil	16 physiotherapists (no indication about age, experience or gender)	Observations and semi-structured interviews	Touch is mostly understood by physiotherapists in a mechanistic way with little acknowledgement of the humanistic aspects of touch	8/9 Insufficient detail of ethical procedures
Jensen, Shepard, and Hack (1990)	Ethnography	To develop a conceptual framework and a data collection tool to begin a systematic analysis of the work of the physiotherapist	Four different adult out-patient orthopedic settings in America	Eight physiotherapists, representing three levels of experience: (novice to expert) Two physiotherapists with <two years of experience, three with three to seven years' experience and three with > 13 years' experience	Audio-taped, non-participant observation	Experienced physiotherapist's hands were a source of communication with the patient and used for therapeutic intervention	6/9 Body communication not video-recorded Findings fall short of the depth of detail needed for clinical application

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Laurendeau (2018)	Auto-ethnography	To explore the researcher's experience of undergoing physiotherapy treatment for a chronic knee injury	A private musculoskeletal clinic in Canada	The researcher drew on his lived experiences of undergoing physiotherapy treatment for a chronic knee injury	Personal narrative	Expertise is conveyed strongly through body communication	8/9 Body communication not video-recorded
Miciak, Mayan, Brown, Joyce, and Gross (2018)	Interpretive Description	To identify the various ways that physiotherapists establish meaningful connections with their patients	Private practice clinics in Edmonton, Alberta, Canada	11 physiotherapists and seven patients (no indication about age, experience or gender)	Semi-structured interviews	Body communication could connect patients and physiotherapists by way of creating a sense of equality	8/9 Body communication not video-recorded The relationship between researcher and participants was not adequately considered

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Martin and Sahlström (2010)	Longitudinal case study using conversational analysis	To address how learning is constituted and can be studied as a phenomenon in interaction and to discuss how teaching and learning are related	Orthopedic outpatient settings in Sweden (unclear from description)	Longitudinally followed one case (one patient and one physiotherapist) across an entire shoulder treatment, amounting to 22 encounters, male physiotherapist: 25 years' experience. Male patient aged 57 years	Video-recorded observations	The patient's body communication provided information which influenced the treatment	7/9 Insufficient detail of research design Findings lack the detail required for application to actual practice

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Normann, Sorgaard, Salvesen, and Moe (2013)	Phenomenology	To investigate how persons with multiple sclerosis (PwMS) perceive movement during single sessions of physiotherapy	Outpatient hospital rehabilitation in Norway	12 PwMS: 32-81 years old. Nine females and three males	Phenomenological hermeneutic content analysis. Interviews supplemented by video-recorded observation	Physical communication occurs between the physiotherapist's hands and the patient's body. This gives the clinician access to information that would not be otherwise available through verbal communication alone	8/9 Inadequate details on ethical procedures Single sessions only

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Øien, Steihaug, Iversen, and Råheim (2011)	Phenomenology	To describe communicative patterns about change in demanding physiotherapy treatment situations	Psychiatric out-patient clinic in Norway	Physiotherapist participants: five females and one male Age range from 44 to 68 years, clinical experience: 20–47 years Patient participants: Ten female and two male patients between 22 and 47 years old, average age 36	Semi-structured Interviews, video-recorded treatment sessions, Patients' personal reflective notes, audio-recorded focus group interview	Inattention to the patient's body communication may compromise the therapeutic relationship Patient's rely on the physiotherapist's sensitivity to their body communication to help understand their problem	9/9

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Potter, Gordon, and Hamer (2003b)	No statement on philosophical tradition or methodology	To identify the qualities of a 'good' physiotherapist and to ascertain the characteristics of good and bad experiences in private practice physiotherapy from the patients' perspective	Private musculoskeletal clinics in Australia	26 patients (no further details available)	Interviews	Active listening, body language builds trust, demonstrates empathy	6/9 Insufficient detail of research design
Reunanen et al., (2016)	Discourse analysis informed by social constructionism	To investigate the interaction between the client and the physiotherapist in stroke rehabilitation sessions	Two physiotherapy sessions were videoed in the hospital, three in the rehabilitation centre and three in the health centres in Finland	Five female and three male clients with stroke, aged between 41 and 86 years	Video-recorded encounter by participating physiotherapist	Documents an episode of the physiotherapist responding to patient's nonverbal expression of frustration (theme was 'neglecting emotional talk'	6/9 The relationship between researcher and participants was not adequately considered

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Roger et al. (2002)	Naturalistic case study design with a cross-case analysis.	To determine how physiotherapist's use touch in inpatient acute and rehabilitation settings	Inpatient, acute care and rehabilitation settings in Pennsylvania, United States of America	15 experienced physiotherapists, clinical experience ranged from 3.5 years to 21 years	Video-recorded treatment sessions Audio-recorded interview with physiotherapists	The most common types of touch used by physiotherapists included assistive touch, touch to provide information, caring touch, touch to provide a therapeutic intervention, and touch used to perceive information	7/9 Findings not grounded in the data, as data collection based on *a priori* categories of touch

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Rutberg, Kostenius, and Öhrling (2013)	Phenomenology	To explore the lived experience of physical therapy of persons with migraine	Outpatient musculoskeletal settings in Sweden	11 patients, nine women and two men, age range 20 to 69	Interviews and video-recorded observation of single physiotherapy sessions	Touch is security Touch establishes relationships	8/9 Inadequate details on ethical procedures Body communication not video recorded
Schoeb and Hiller (2018)	Ethno-methodology and ethnography	To examine how physiotherapists and their patients communicate during episodes of documentation	Private musculoskeletal practices and hospital-based outpatient clinics in Switzerland and Australia	113 patient–physiotherapist interactions: 61 patients being treated by 19 physiotherapists in a Swiss context, and 52 patients treated by eight physiotherapists in Australia were observed	Participant observation, video-recordings, audio-recordings and field notes	During documentation physiotherapist's made minimal eye contact with patients and there were frequent pauses in conversation	7/9 The relationship between researcher and participants was not adequately considered

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Sze-Mun Lee, Sullivan, and Lansbury (2006)	No statement on philosophical tradition or methodology	To explicate the strategies used by physiotherapists to communicate with clients who have limited English proficiency	Three hospitals in New South Wales, Australia.	Five physiotherapists, clinical experience range 1 to 22 years	Audio-recorded Interviews and observations	Physiotherapists frequently used body communication in the form of demonstrations, gestures, facial expressions and other visual cues	7/9 Insufficient detail to allow for application to clinical practice. The relationship between researcher and participants was not adequately considered

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Thing (2005)	Phenomenology	What are women experiences of their injury? How do physiotherapist's understanding of the body structure and influence their interaction with patients during exercise in the rehabilitation process?	Outpatient, musculoskeletal settings in Copenhagen, Denmark	17 female handball players, age range 19 to 38	200, 1 hour observations and field notes and interviews with patients	Rehabilitation of movement in rehabilitation is structured biomedically, Aspects of body communication included facial expressions, silence, gaze, tone of voice, nodding	7/9 Focused more on the socially and professionally constructed basis of interaction rather than explicitly attending to the details of body communication

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Thornquist (1991)	Descriptive content analysis informed by phenomenology	How do physiotherapists relate to their patients through body communication during first encounters?	Outpatient orthopedic, psychiatric and community settings in Norway	Three groups of physiotherapists: manual and psychiatric clinicians and community physiotherapists (no indication about clinical experience)	Video-recorded observation	Body communication was used by physiotherapists to convey the availability and engagement of the physiotherapist. For example, eye contact and body positioning	6/9 Inadequate detail of research procedures. Researcher did not account for the impact of their assumptions on data collection or analysis

Reference	Methodology	Purpose/aim	Setting(s)	Participants	Methods	Key interpretation(s) related to body communication	Study quality (CASP scores and key weaknesses)
Vaughan-Graham and Cott (2016)	Interpretive Description	To explicate the clinical reasoning process of Bobath instructors	Private practice, acute care, in-patient rehabilitation, out-patient rehabilitation and home care settings in Australia, Spain, Italy and Portugal	22 Bobath instructors, clinical experience range: 12 to 40 years	Stimulated recall using video-recorded treatment sessions and in-depth interviews	Physiotherapists described how they used the information from their hands and body to add another dimension to their clinical reasoning	8/9 Inadequate details on ethical procedures

Findings

The synthesis identified 30 qualitative studies investigating communication and interaction in physiotherapy. The studies were conducted in a range of settings and employed various qualitative methods and approaches. The most commonly adopted methodologies included phenomenology (n=7), ethnography (n=5), grounded theory (n=3), qualitative content synthesis (n=3), conversational analysis (n=2) and interpretive description (n=2). Six studies did not state the philosophical tradition or methodology. The countries that undertook most of the research included Norway (n=8), Australia (n=4), America (n=4), Sweden (n=3), Canada (n=4), Finland (n=2), France (n=1), South Africa (n=1) and Brazil (n=1). The most frequent settings were private practice (n=13), musculoskeletal outpatient (n=7), acute/inpatient hospital (n=7) and psychiatric outpatient (n=6); in three studies, the setting was unclear. Key data collection methods included: participant observation/interview/video-recorded sessions (n=12), observation/interview (n=10), semi-structured interviews (n=5), focus groups (n=5), personal narrative (n=3) and stimulated recall of treatment sessions (n=1). Body communication was the focus of only one study (Thornquist, 1991), but was often a key finding in studies focused on other areas of physiotherapy practice. From these studies, a synthesis of inter-related themes was made which identified that body communication was a critical component of the therapeutic interaction and played a crucial role in the therapeutic relationship.

Several studies highlighted the crucial role of body communication in conveying the physiotherapist's attention. Attention was important to patients as it could give the impression that physiotherapists were taking an interest in their problems (Crepeau, 2016; Thornquist, 1991) and demonstrated to patients that their problems would be taken seriously (Ekerholt & Bergland, 2004, 2006, 2008). Attention could also lead to patients feeling confirmed, listened to, and understood by their physiotherapists (Eriksson, Ekenberg, & Melander-Wikman,

2012; Houston-McMillan, 1988) and impacted patient satisfaction and recovery (Crepeau, 2016; Gyllensten, Gard, Hansson, & Ekdahl, 2000; Potter et al., 2003b).

Physiotherapists conveyed attention in several ways. Thornquist's (1991) ethnographic study of first patient-physiotherapist encounters is worthy of special consideration as she paid particular attention to how physiotherapists related to their patients through body communication. Her findings were primarily drawn from video-recorded observations from three groups of physiotherapists (orthopaedic, psychiatric and community) in Norway. The filming started when the physiotherapist greeted the patient and ended when the patient left the room. Thornquist found that much of the interaction between patient and physiotherapist occurred through body communication, whether through touch or physical proximity, body movement or eye contact and it was crucial to a successful therapeutic process. She described how physiotherapists conveyed attention by turning their bodies to look directly at patients as they spoke, positioning themselves close to and level with their patient and by leaning forwards during dialogues with the patient. Thornquist's study might be considered foundational as she provides rare insights into the role of body communication in physiotherapy practice. However, Thornquist was present during interactions, and in her discussion, she failed to explain the impact this observation may have had on the communication between the patient and physiotherapist. It is therefore hard to know if her results reflect the typical practice of physiotherapists or whether the physiotherapists altered their behaviour in response to being observed (McCambridge, Witton, & Elbourne, 2014).

Another important aspect of attention illustrated in several studies was whether the physiotherapist was perceived by patients to be present (Ekerholt, 2011; Ekerholt & Bergland, 2004, 2006; Gard, Gyllensten, Salford, & Ekdahl, 2000; Miciak et al., 2018a). To be present, the physiotherapist had to convey that they had time for patients. A physiotherapist who appeared unhurried, calm and friendly could give the impression of

having time for patients (Ekerholt, 2011; Ekerholt & Bergland, 2006; Gyllensten et al., 1999). For example, a patient interviewed by Ekerholt (2011) described how one physiotherapist signalled they had time through maintaining eye contact, sitting quietly and not interrupting the patient as they spoke. These behaviours conveyed that the physiotherapist was present in-the-moment.

Some physiotherapists were particularly skilled at conveying attention despite simultaneous demands. For example, Jensen et al. (1990), in their qualitative grounded theory study comparing expert and novice clinicians within private practices in America, observed that expert physiotherapists used gaze regularly to assess and monitor a group of patients, which gave each patient the feeling that the physiotherapist was attentive. Similarly, Thornquist (1991) observed that experienced physiotherapists were able to attend to both documentation and the patient by sitting with their bodies turned towards their patients as they wrote and by looking directly at the patient when they spoke. Physiotherapists adjusted the physical environment to maximise their ability to attend to patients (Crepeau, 2016; Jensen et al., 1990; Miciak et al., 2018a). For instance, Crepeau (2016) observed how a physiotherapist was able to convey attention to multiple patients at once by using a horseshoe-shaped table. However, conveying attention was not always evident in the physiotherapist's behaviour. This inattention was ascribed mainly to novice physiotherapists, as observed by Jensen et al. (1990) who found that less experienced clinicians were much more intent on clinical tasks than being attentive to their patients.

Through attention, awareness and sensitivity, physiotherapists made it possible for the patient to convey key information through the body (Bjorbækmo & Mengshoel, 2016; Buhl & Pallesen, 2015; Gyllensten et al., 1999; Harman et al., 2011; Pallesen & Buhl, 2017; Sze-Mun Lee et al., 2006). This information was particularly valuable when verbal communication was challenging. For instance, in patients with severe traumatic brain injury

in intensive care who were unable to speak, a physiotherapist described holding eye-contact and waiting calmly for patients to react to pick up subtle signs of patient participation such as gestures and facial expressions (Buhl & Pallesen, 2015). Body communication, in this case, enhanced the patient's tacit voice and enabled them to participate in rehabilitation actively. Body communication also functioned as a form of 'embodied consent' (Fenety et al., 2009, p. 657). For example, physiotherapists working in Canadian private practice settings described using the patient's bodily responses (i.e., movements and facial expressions) to an intervention as a sign of ongoing treatment consent. During interviews, physiotherapists argued that body communication was essential in the busy private practice setting because they did not have time to stop treatment and obtain verbal consent for every change in an intervention that occurred. Body communication also provided a way for patients to communicate the emotional aspects of injury that were often difficult, if not impossible, to verbalise (Crepeau, 2016; Edwards, Jones, Carr, Braunack-Mayer, & Jensen, 2004; Gyllensten et al., 1999). For instance, Crepeau's (2016) personal account of her recovery from surgery described how her physiotherapist identified that she was upset through her slow movements and slouched body posture. Body communication thus enabled patients to express their unspoken needs, concerns and emotions and physiotherapists to develop a greater understanding of their patients than using words alone.

Body communication also enabled physiotherapists to adjust their approach (Buhl & Pallesen, 2015; Ekerholt & Bergland, 2004, 2006, 2008; Gyllensten et al., 1999; Øien et al., 2011; Pallesen, Lund, Jensen, & Roenn-Smidt, 2017; Thornquist, 1991). Several phenomenological studies exploring how patients and physiotherapists interacted during sessions involving psychiatric physiotherapy in Norway described how physiotherapists adjusted their approach through body communication (Ekerholt & Bergland, 2004, 2006, 2008; Normann et al., 2013; Øien et al., 2011). Ekerholt and Bergland, who published several

papers (2004, 2006, 2008) all derived from the same dataset, explored patients' experience with physiotherapy regarding the initial assessment, therapeutic massage and exercises. Although not explicit in the patient accounts, the authors suggested that during a massage or when teaching exercises, the physiotherapist adjusted their touch as well as the difficulty of movements based on the response observed in the patient's breathing. Patients highlighted that the physiotherapist's adjustments increased their awareness and understanding of their body reactions and contributed to their knowledge of their problem and ways to improve. These findings suggest that body communication played a crucial role in co-constructing physiotherapy interaction. However, within these studies, the descriptions of the co-constructed process relied solely on the patient's or the researcher's accounts, ignoring the way that *both* patient and physiotherapist contributed to the communication and the understandings that emerged.

Inattention to body communication could be problematic**.** For example, physiotherapists who missed or were unaware of patient body communication had difficulties adjusting treatment to their patients and were at risk of alienating them from rehabilitation (Crepeau, 2016; Reunanen et al., 2016; Talvitie & Reunanen, 2002; Thing, 2005; Thornquist, 1991). In a study of patient-physiotherapist interactions in private musculoskeletal settings in Denmark (Thing, 2005), a patient expressed their distress during an episode of exercise, pointing out through her slouched posture and subdued tone of voice, that her current physical capacity was insufficient for the task. However, the physiotherapist failed to read these subtle cues and inappropriately pitched the task at a level that was too challenging. Not responding to body communication and adjusting tasks appropriately, in this example, increased the patient's frustration and worry, and resulted in the patient becoming disengaged from therapy. Similarly, Talvitie and Reunanen (2002) found that physiotherapists who did not read and respond to patient body communication often dominated interactions through

their verbal communication by giving instructions, rarely discussing the purpose or goal of exercises, and assuming patients agreed with their interpretations of patients' verbal communication. This dominant and one-way interaction pattern meant that some patients reported failing to find meaning in therapy and stopped attending. Similarly, several researchers observed that breaks in the relationship between patient and physiotherapist were largely related to the physiotherapist not being sensitive to the patient's body communication (Crepeau, 2016; Øien et al., 2011; Reunanen et al., 2016). These studies indicate that body communication was essential to keep patients engaged in therapy.

Numerous researches suggest that body communication played an essential role in building the therapeutic relationship (Bjorbækmo & Mengshoel, 2016; Crepeau, 2016; Lisbeth Eriksson et al., 2012; Hiller et al., 2015; Houston-McMillan, 1988; Jamarim et al., 2019; Normann et al., 2013; Rutberg et al., 2013; Thornquist, 1991). For example, several studies demonstrated that physiotherapists could establish rapport and convey caring and understanding through therapeutic touch in a way that transcended words (Bjorbækmo & Mengshoel, 2016; L. Eriksson et al., 2012; Houston-McMillan, 1988; Normann et al., 2013; Rutberg et al., 2013). Therapeutic touch was also crucial for the patient's perception of the physiotherapist's skill and competence and the development of the patient's trust in the physiotherapist (Hiller et al., 2015; Laurendeau, 2018; Rutberg et al., 2013). However, beyond stating that body communication was important, authors provide little evidence for *how* body communication influenced the therapeutic relationship, suggesting that this is an area requiring further attention.

Summary

This qualitative synthesis reviewed the literature on what is known about body communication in physiotherapy practice. These studies indicated that through body communication, physiotherapists conveyed attention and interest in encounters (Crepeau,

2016; Thornquist, 1991), and enabled patients to communicate in situations where verbal expression was challenging (Bjorbækmo & Mengshoel, 2016; Buhl & Pallesen, 2015; Gyllensten et al., 1999; Harman et al., 2011; Pallesen & Buhl, 2017; Sze-Mun Lee et al., 2006). Body communication also played a crucial role in co-constructing physiotherapy interactions, allowing both patient and physiotherapist to contribute to therapy and the understandings that emerged (Ekerholt & Bergland, 2004, 2006, 2008; Normann et al., 2013; Øien et al., 2011). Body communication could also help build the therapeutic relationship between patient and physiotherapist (Bjorbækmo & Mengshoel, 2016; Crepeau, 2016; Lisbeth Eriksson et al., 2012; Hiller et al., 2015; Houston-McMillan, 1988; Jamarim et al., 2019; Normann et al., 2013; Rutberg et al., 2013; Thornquist, 1991). Inattention to body communication could be problematic, as it could prevent the physiotherapist from fully understanding the patient's needs and concerns and result in patient disengagement or dissatisfaction (Crepeau, 2016; Reunanen et al., 2016; Talvitie & Reunanen, 2002; Thing, 2005; Thornquist, 1991). Together, the findings of this qualitative synthesis suggest that sensitive and responsive body communication enabled physiotherapists to communicate in a more person-centred way.

Limitations and Knowledge Gaps

This qualitative synthesis highlighted many limitations and knowledge gaps in the literature. First, most of the included studies were not specifically designed to examine body communication per se. For example, many explored patient-physiotherapist interactions, and so body communication was simply discussed as an area of interest in that context. The one study that attended specifically to body communication (Thornquist, 1991) yielded valuable insights, suggesting that a specific focus on body communication in future work would be likely to generate further details about its role in physiotherapy practice.

Second, most studies were conducted in Nordic countries, or in psychiatric settings where physiotherapy scholars have contributed heavily to examining and developing frameworks for understanding the role of the body in physiotherapy (Engelsrud et al., 2018). This may have led to a greater awareness among physiotherapists involved in these studies of the importance of body communication in patient-physiotherapist interaction (Engelsrud et al., 2018; Larsson & Gard, 2006). While physiotherapy practice is similar across the globe, each country has its own nuances related to its population or practice. Generalisability must, therefore, be viewed in relation to the specific context of a study. This highlights the importance of generating New Zealand-specific findings.

Third, many studies did not acknowledge or explain the influence of the researcher's presence on the patient-physiotherapist interaction. As mentioned, this makes it difficult to determine if results reflected the typical practice of physiotherapists, or if the physiotherapists altered their behaviour in response to being observed. Fourth, although research on patient-physiotherapist interaction frequently noted body communication occurring, few researchers video-recorded their observations, which made it difficult, if not impossible, to document the subtleties and complexities of body communication (Martin & Sahlström, 2010). The absence of video-recorded observations also presented issues for analysis, as researchers were unable to fully review data. This seems to have resulted in data that is often too general and lacks the descriptive depth required for meaningful clinical application.

Fifth, most studies of body communication between patient and physiotherapist rely on phenomenological frameworks. Because phenomenological analysis holds subjective experience as its primary object of analysis, it does not provide a sufficient account of the contingent and co-constructed nature of communication (Gergen, 1999). It would be beneficial to employ research methodologies that allow for improved understanding of the co-constructed nature of body communication. Furthermore, because existing studies focus

on researcher accounts or the perspectives of the physiotherapist or patient, but rarely both, how body communication occurs and what it gives rise to remain unclear.

Lastly, while previous studies have suggested that body communication is vital to building the therapeutic relationship, they have given very little information about *how* it does so. The majority have focused on first encounters between physiotherapists and patients, ignoring the shifts in interactions and relationships over time. A longitudinal study mapping the evolution of relationships over the long term would provide valuable information about how body communication influenced the therapeutic relationship.

Summary: Chapter Two

This chapter outlined the current literature regarding body communication in physiotherapy practice. It is clear that body communication could have both positive and negative consequences for patients in physiotherapy encounters. The chapter first summarised healthcare communication models, demonstrating why it is vital to consider body communication in physiotherapy practice. It suggested that body communication supported physiotherapists in adopting a more person-centred manner. This overview was followed by a systematic review and qualitative synthesis of the available literature examining body communication in physiotherapy practice. This review supported the assertions made in Chapter One that sensitive and responsive body communication facilitated a person-centred approach to communication. Specifically, body communication played a key role in conveying the physiotherapist's attention and co-constructing the physiotherapy interaction, and contributed to building the therapeutic relationship. Conversely, inattention to body communication could prevent the physiotherapist from fully understanding the patient's needs and concerns and result in patient disengagement/consumer dissatisfaction.

Collectively, the research indicates that body communication is crucial to physiotherapy practice.

The review also illuminated limitations and knowledge gaps in the current research. Notably, most previous research did not explicitly attend to body communication and lacked the detail and specificity offered by studies that did. Furthermore, most studies were conducted in Nordic settings, and it is unclear whether their results can be applied to private practices in New Zealand. Chapter Three describes the methodology employed in this study to investigate the role and impact of body communication in private physiotherapy practice in New Zealand.

Chapter Three: Methodology

One impetus for undertaking this research was to generate useful and practical insight for clinicians to reflect on and consider within their practice with the ultimate objective of improving patient and physiotherapist experiences and outcomes. In my review of the literature, I identified a need for more detailed and nuanced descriptions of body communication during patient-physiotherapist interactions. This applied focus informed my methodological decisions throughout the research process; this chapter details the methodological approach subsequently adopted.

This study uses an Interpretive Description methodology (Thorne, 2016; Thorne, Kirkham, & MacDonald-Emes, 1997). Interpretive Description was developed by Thorne et al. (1997) as a research methodology to develop a better understanding of complex phenomena within nursing and generate knowledge relevant for application to practice (Hunt, 2009). While initially used in nursing, it has since been used in many practice areas including speech-language therapy (Bright, McCann, & Kayes, 2019), humanitarian work (Hunt, 2009) as well as in physiotherapy (Miciak, Mayan, Brown, Joyce, & Gross, 2018b; Vaughan-Graham & Cott, 2016). It recognizes that there are many realities, and data are constructed through a researcher's interpretation of the data rather than as something that 'emerges' out of the findings (Thorne, Kirkham, & O'Flynn-Magee, 2004). Furthermore, Interpretive Description acknowledges the researcher's theoretical and practical foreknowledge of the phenomenon under study. This foreknowledge serves as the 'scaffold' of the study and informs the research design but is intended to be challenged throughout the study (Thorne, 2016). Throughout the research journey, my scaffold developed as my knowledge expanded and my thinking evolved shaped by self-reflection, the literature review and research supervision.

Interpretive Description does not propose a specific theoretical framework (Thorne et al., 1997). However, a theoretical framework is useful in qualitative research as it helps to deconstruct initial assumptions and scaffold investigations (Mengshoel, 2012). I drew on a social constructionist perspective (Berger & Luckmann, 1967), to extend my preliminary scaffold and advance my initial descriptive claims towards more abstract interpretations of body communication (Thorne et al., 1997). I chose this approach because of the epistemological assumption of multiple realities and co-constructed knowledge that underpinned both social constructionism and Interpretive Description (Gergen, 2006). Drawing on social constructionism, I viewed communication as an active, joint construction between people, such as patients and physiotherapists, that is context-bound in the sense that it must be viewed in relation to the participants, to the researchers' theoretical and practical pre-understandings, and to the research settings (Gergen, 1985). Therefore in this study, my exploration and construction of knowledge were based on a range of factors that could potentially influence physiotherapists' and patients' body communication (Gergen, 2006).

Design

The data for this study was from two participant dyads. Each dyad included one patient and one physiotherapist. For dyad A, I observed all six scheduled treatment sessions. For dyad B, I observed three of four scheduled treatment sessions.

Participant Sampling and Recruitment

Purposive sampling was used to select participants that could assist me to answer my research question (Carpenter & Suto, 2008). Interpretive Description as a methodology often involves small numbers of participants (Thorne et al., 2004). This is because few instances may allow closer scrutiny and thereby provide insights about details and nuances that are usually overlooked but potentially vital (Thornquist, 2012). An in-depth study of one dyad

was thus, initially proposed. However, after data collection began with the first dyad, it became obvious that the number of treatments would be limited to no more than four sessions and it was felt that one dyad would not provide enough data for a detailed analysis of body communication. Therefore, a decision was made to recruit another dyad, bringing the total number of dyads to two.

Physiotherapists with a minimum of five years' experience were recruited. This was based on the findings of other qualitative studies which showed that physiotherapists with five or more years' experience were more comfortable with their work and could more readily reflect on their communication than less experienced physiotherapists (Gard et al., 2000; Gyllensten et al., 2000; Jensen et al., 1990). Furthermore, several studies have shown that with more experience, physiotherapists improve their ability to read body communication; they also demonstrate more frequent use of body communication (Helm et al., 1997; Jensen et al., 1990). I therefore expected that physiotherapists with five years of clinical experience would be best equipped to provide access to the phenomenon under review. The principal recruitment criteria for prospective physiotherapist participants were clinicians with five or more years post-qualifying experience and holding an annual practicing certificate. The principal recruitment criteria for prospective patient participants were people who were over 18-years of age, presenting with musculoskeletal pain, and able to communicate in English. Patient participants were excluded if they were seeking treatment for a chronic or a rare condition or were only expected to have one-to-two treatment sessions. The diagnosis itself was of minor importance. Lastly, because this research wanted to consider how relationships develop over time; patients previously treated by the physiotherapist participant were excluded.

Participant recruitment had four stages. The first stage was to contact managers of private practices via email and ask if they could distribute information about the study to all

eligible physiotherapists. These Auckland-based private practices were identified through the researcher's personal and professional networks. The second stage, following verbal consent of the practice manager, was to visit the physiotherapy practice to outline the research to potential physiotherapist participants and to gain their informed consent to participate in video-recorded observations and a post-session interview. Once the physiotherapist consented to participate, the third stage involved recruitment of patient participants. When the prospective patient booked their first appointment with one of the physiotherapists who had already been recruited, an administrative staff member asked if they would consider participating in the study. If the patient's response was affirmative, the administrative staff member gave the patient verbal information about the study. If the patient was interested in participating, the administrative staff member sought consent from the patient to provide their contact details to the researcher (CG). I then called the patient to discuss the research and sent an information sheet via email. If the patient verbally agreed at this point, I met the patient before the first treatment to obtain written informed consent.

I initially sought to recruit physiotherapists working in Accident Compensation Corporation (ACC) accredited musculoskeletal clinics and patients receiving treatment for an ACC-related claim. I sought these characteristics because ACC is a central part of private practice physiotherapy in New Zealand, producing a unique time-pressured context which I felt would challenge body communication between patient and physiotherapist, something I identified in my pre-assumptions interview. However, despite months of attempting to recruit practices to participate in this research, recruitment was difficult. The practices I contacted either did not return my emails or declined participation, mostly stating that they were too busy to incorporate research into their daily practices. I therefore broadened the inclusion criteria to include physiotherapists working in non-ACC accredited practices as well as

patients who were not receiving treatment for an ACC-related claim. The participants thus became a purposive convenience sample (Etikan, Musa, & Alkassim, 2016).

Data Collection

Data was collected from two private outpatient, musculoskeletal physiotherapy practices in metropolitan Auckland, New Zealand: Practice A and Practice B. As discussed in Chapter 1: Introduction, this setting was chosen because there are several factors unique to the private practice setting in New Zealand that act to highlight and challenge body communication in the clinical interaction.

Data was collected through various approaches, including video-recorded observations, field notes, brief semi-structured interviews, and video-stimulated recall interviews, consistent with the Interpretive Description approach which supports multiple approaches to data collection to provide rich and nuanced accounts of the phenomenon under investigation (Thorne, 2016). I used video-recorded participant observation as my primary data source. The combination of video recordings and observations complemented each other as the video recordings captured the course of events and the observations made it possible to capture the context. Together, the data comprised nine 40 to 60-minute video-recorded treatment sessions, eight video-stimulated recall interviews and six brief (less than 10 minutes) semi-structured interviews. A summary of the data collected is presented in Table 1:

Table 2. Summary of the data collected

	Dyad A		Dyad B	
	Patient	Physiotherapist	Patient	Physiotherapist
Video-recorded observations	n=6		n=3	
Video-stimulated recall interviews	n=2	n=2	n=2	n=2
Brief, semi-structured interviews	n=2	n=2	n=1	n=1

Video-recording. Video-recording was used for several reasons. First, communication is a complex process and it is difficult for an observer to capture all the details in a real-life setting (Martin & Sahlström, 2010), especially when there are multiple components occuring simultaneously. The permanent record of video-recorded data permitted me to capture the communication accurately and repeatedly review and reflect on body communication patterns in a variety of ways, e.g., at different speeds, magnification and time periods. This allowed me to analyse the more subtle aspects of body communication as well as interaction dynamics as they evolved throughout treatment that would not have been possible with any other forms of data collection. Second, because physiotherapists' actions are frequently based on tacit knowledge and are therefore difficult to verbalise (Ajjawi & Higgs, 2012), and body communication often occurs unconsciously (Perry, 1975), video-recording was considered the ideal tool for documenting what actually happened rather than the impressions and self-reports of individuals (Heath, Hindmarsh, & Luff, 2010). Lastly, video-recording could be made available to my supervisors for scrutiny which assisted the checking of the validity and rigour of my analyses, allowing my supervisors to extend or challenge my analyses (Jordan & Henderson, 1995).

The purpose of the video-recording and observation was to capture body communication occurring during the patient-physiotherapist interaction. At site A, I opted to use a hand-held camera for two reasons: (1) the treatment room was small, and the tripod became an obstacle as the physiotherapist moved around during the treatment and (2) a hand-held camera enabled me to move quickly to capture the physiotherapist's movement from the treatment room to the gym. One shortcoming of using the hand-held camera was it prohibited me from taking field notes. At practice B, a tripod-mounted Sony camera (model HXR-NX70P) was positioned discreetly in the corner of the treatment room to optimise my view of both the patient and the physiotherapist. I sat behind the camera, taking notes during

recording. Several times during these sessions I adjusted the camera position to ensure that both the patient and physiotherapist were still visible even when they moved or changed position. Unfortunately, due to the risk of capturing other people sitting in the waiting area, video-recording could not start when the physiotherapist collected the patient from the waiting area, however I was able to observe this initial interaction (documented in field notes). Therefore, the camera was switched on at the earliest possible moment: this was when the physiotherapist entered the treatment room with the patient.

The video-recording of dyad A took place over the entirety of the treatment journey i.e. from initial assessment through to discharge. In dyad B, the video-recording started from the first treatment but finished one session before treatment completion due time constraints related to my own full time work. During the sessions, I adopted a 'passive participant' role (Spradley, 2016, p 59.) in which I was overtly present and observing but not actively participating. I asked the patient and the physiotherapist to pay as little attention as possible to me as I sat in the corner of the treatment room taking observation notes. I did not initiate communication but I responded, in a limited but socially appropriate way, to communication from participants (Davidson, Howe, Worrall, Hickson, & Togher, 2008). To achieve good quality observations and video-recordings, I made practical considerations (Heath et al., 2010). For example, I endeavored to obtain an optimal angle to view the interaction between patient and physiotherapist, and I maintained proper backlighting for the camera.

Video-recording, as a data collection method, requires careful consideration because the video camera and the video-recording may influence the quality of the collected data (Latvala, Vuokila-Oikkonen, & Janhonen, 2000). The essential limitations are mechanical problems and the influence of video-recording on behaviour (Latvala et al., 2000). Mechanical limitations are common and certain to arise if the researcher is not an expert in using the video camera. To offset potential for mechanical issues, I became familiar with the

equipment and processes prior to video-recording. Prior to video-recording the actual sessions, I familiarised myself with the clinic environment where the filming would take place. All equipment was also set up and tested well ahead of time, to ensure the quality of the video-recording was satisfactory.

One of the concerns about capturing video-recorded data is observer effects (also referred to as the Hawthorne Effect), defined as a 'research participant's altered behaviour in response to being observed' (Paradis & Sutkin, 2017, p 32). Several strategies were implemented to minimize video-recording disturbance of the natural setting. For example, to reduce participant reaction to the video camera and myself, I reached an agreement about the camera location with participants. The observed interactions were disturbed as little as possible by being quiet, avoiding eye contact with the participants and moving slowly when the position needed to be changed. Some influence on participant behaviour was still anticipated even when adopting the strategies above. Therefore, after the first and third sessions, a short, semi-structured interview was conducted with the physiotherapist and the patient to assess the perceived effect of myself and the video camera during interactions (Roberts & Bucksey, 2007). These brief, semi-structured interviews revealed that participants, although slightly aware of my presence and the camera during the first recorded sessions, became much less so in subsequent sessions. All participants stated that they had very little awareness of being video-recorded. One of the physiotherapists mentioned that he was used to having his practice observed by students and other health professionals and therefore found being video-recorded quite natural and generally ignored the camera. Furthermore, this physiotherapist was always observed to intently focus on the patient during the therapeutic encounter and not once spoke to me or orientated himself towards the camera during the sessions. One of the patient participants mentioned that knowing the research was

about body communication perhaps made her a little more conscious about the physiotherapist's nonverbal behaviour, but she did not change her behaviour as a result.

Video-stimulated recall interviews. A limitation of video-recorded observations is the risk of misinterpretation by the observer (Roger et al., 2002). Therefore, interviews were also conducted to explore participants' motivations and intentions behind their actions. Interviews were undertaken using video-stimulated recall (VSR) (Gass & Mackey, 2000). A VSR interview involves showing research participants a video-recording of their behaviour (in this study, focusing on body communication during patient–physiotherapist interaction) to support their recall and interpretation following the event, for example, in a post-treatment interview (Paskins, Sanders, Croft, & Hassell, 2017). Because physiotherapists may see more than 20 patients daily, and patients can forget 40% to 80% of information from a medical consultation immediately (Kessels, 2003), VSR may facilitate participants' perceptions of the treatment and recall of body communication by providing a 'stimulus' of the consultation (Paskins et al., 2017). I also considered that VSR might allow me to capture richer and more nuanced data as it may encourage participants to express what was important to them and to reveal more emotional or reflective responses to the observed behaviour (Paskins et al., 2017).

To support recall, I met individually with each participant to review the recorded encounter on a laptop computer and undertook the VSR interview within three days of the video-recording (Lyle, 2003). VSR interviews were completed in person in a location of the participant's choice. The VSR interviews took place after the second and final treatment sessions. If VSR could not occur within three days, the interview was cancelled (Mackey & Gass, 2015). From different studies (Schepens, Aelterman, & Van Keer, 2007), it was clear that a VSR interview of a one-hour patient-physiotherapist interaction could be very time-consuming. Hence, each VSR interview was restricted to no more than a ten-minute segment

of video-recorded interaction. The selected samples included for example, the opening moments of the clinical encounter and the first occurrence of therapeutic touch. Other chosen excerpts included extracts of activities that appeared challenging, as well as extracts of treatment that seemingly went well. Each VSR interview was between 60 and 90 minutes. Due to the time-consuming nature of these interviews, the number was limited to two interviews per participant (eight in total). Indicative questions for stimulated recall interviews are included in Appendix A.

The patient and physiotherapist watched the video-recorded segment in its entirety. The video was then replayed. Before playback, I showed participants how to stop the recording to comment on their recollections of the encounter, including their body communication and the other persons. I also paused the video at events I wished to explore in more detail (Gass & Mackey, 2000). Examples of questions I asked the participants included: What are your reactions to what you just saw? What are your thoughts when you look at this? What was happening there? I did this to gain detailed and nuanced knowledge of body communication. I also asked participants to comment on how they experienced different aspects of the other person's body communication when they watched it on the video. With written consent, the VSR interviews were audio-recorded using a Sony digital audio recorder (ICD-BX140) and supplementary field notes were written. The audio device was subtly positioned so as not to detract from the intimacy of the conversation. To obtain rich and nuanced interpretations of the interviews, audio-recordings were listened to numerous times to capture elements of talk such as speed, intonation, timing and emphasis.

Follow up interviews. Six, brief semi-structured interviews (no more than 10 minutes) were conducted with each participant to further construct the understanding of, and meaning in, body communication from their perspectives. Interviews occurred immediately after the first and third encounters at Practice A and after the first session at Practice B and

focused on whether participants had any further recollections based on their interactions and VSR interviews. After the first session, participants were also asked about the influence of myself and the video camera on the interaction. All interviews were audio-recorded.

Other data. Other material included field notes completed during observations and before and after interviews, as well as a reflective journal that continued throughout the research. Field notes commented on contextual aspects of the interview and observations such as the environment, participant-researcher rapport, and interview quality (Patton, 2002). The field notes were not analyzed in the traditional sense but facilitated data analysis by capturing what it was like to be present during the observations as well as highlighting relevant aspects from the interview data that were not apparent from the transcripts (Mayan, 2016). The reflective journal captured my thoughts regarding different aspects of the research including difficulties with participant recruitment and meetings with other healthcare professions and researchers as well as negative themes, preliminary interpretations and thinking that could contribute to the development of my findings (Mayan, 2016).

Data Analysis

Data arising from VSR interviews were transcribed verbatim according to a modified version of the Jefferson convention (Atkinson & Heritage, 1984) and combined with data from field notes and video-recorded treatment sessions. I intended to review and transcribe each piece of audio data; however, due to time constraints, the help of a transcriptionist was also sought. Before commencing data analysis, all data were imported into NVivo11 to help organise and code across all data sources and assist with the analysis. Drawing on Interpretive Description, data collection and analysis were concurrent with preliminary themes influencing the selection of sequences for subsequent VSR interviews. As a result, data collection and analysis informed each other repeatedly (Thorne et al., 2004). Furthermore, the analysis was iterative, involving many returns to each data source.

Interpretive Description does not have its own analytic strategy. Ultimately, researchers using Interpretive Description must choose an analytic strategy that is congruent with the research question and data collection strategies being used (Thorne, 2016). Accordingly, the Part Process Analysis (PPA) method was used to analyse video-recorded data (Steihaug & Malterud, 2003). This analysis was primarily descriptive. To move beyond a purely descriptive account, I used thematic analysis as an adjunct to the PPA (Braun & Clarke, 2006). All other data were analysed using principles of thematic analysis. These analytic strategies are outlined below.

Part Process Analysis. The PPA is a useful method for micro-analysing short sequences of patient-provider interaction generally and body communication specifically (Steihaug & Malterud, 2003). Furthermore, the method captures how interaction develops and how the participants change during the interaction process (Lövlie, 1981; Steihaug & Malterud, 2003). In PPA, the *part process* refers to an interaction sequence as a unit for analysis (Steihaug & Malterud, 2003). The analysis method comprises three analytical levels in the chosen part process (Lövlie, 1981). The first level is a description of the theme or topic that is communicated verbally. Level two is an analysis of the body communication connected to the theme - what types of experience are expressed about the topic? What types of feelings are communicated by the participants (based on the pitch of voice, tone, mimicry, body posture or movements)? The third level is the comprehension of the relationship between patient and physiotherapist. After applying these three levels of analysis, I interpreted what the part process was about based on a combination of verbal and body communication.

Each video-recorded treatment session was uploaded to proprietary video data management software and watched in its entirety to get a view of the whole. With my attention directed at the interaction between patient and physiotherapist, I reviewed each

video-recorded treatment session many times and looked for sequences where body communication highlighted the reciprocal and co-constructed nature of the interaction. I also looked for sequences where the interaction was seemingly challenging, not necessarily to contrast my positive findings but to challenge them. Additionally, I sought sequences that captured how body communication changed and evolved over time. Based on this process, I selected 31 part processes. Segments selected for the final analysis were taken from different phases of the treatment session, including the beginning of the treatment session, the initiation of treatment (exercise and hands-on therapy), and the closure phase. Each part process was then transcribed, according to the analysis method described by Lövlie (1981). After analysing several part processes, I felt that my interpretation did not move beyond a mere description of the data, so I decided to combine PPA with thematic analysis (described below) to provide a more abstract form of interpretation.

Thematic Analysis. A thematic analysis provides a robust, systematic framework for analysis while offering theoretical flexibility for a wide variety of qualitative data (Terry, Hayfield, Clarke, & Braun, 2017). The analysis focused on both semantic and latent features of the data. The analysis started with familiarisation of the transcribed part processes and interview data through reading and re-reading. This data was then transferred into NVivo 11 to facilitate a systematic coding approach by adding the established codes as ‘nodes’ and matching the coded text to the nodes. This allowed me to sort, group and find connections between codes. Once all the transcripts were coded, my coding framework was reviewed. Some codes were combined to create broader categories and I used the word frequency query tool to help identify additional codes in the data that I may have otherwise missed. Table 3 provides examples of the initial coding process.

Table 3. Examples of initial coding

Code/node	Example of coded text
Creating a safe space	Physio steps back from the bike to obtain a broader gaze of the patient on the bike. 'At the moment are you ok?' Concerned voice Kneels to the level of the patient's knees. He conveys concern through his tone of voice, uses touch and verbally reinforces what she is doing well.
Physiotherapist responsiveness	Shortly thereafter she reacts to the cold by elevating the shoulders. Physio responds by starting off with very slow circular movements of his hands on the patients lower back.

Next, I extracted codes into a list. From this list, I constructed different potential themes. The next step started when I constructed an initial version of a thematic map by linking the relevant data to the themes. After revisiting and reflecting on the identified themes, I made alterations to the thematic map to better connect the themes to the overall data (examples of initial and subsequent evolved thematic maps are provided in Appendix B and C). As I reflected on possible themes, it became apparent that the use of PPA, which looks at communication from a micro-level perspective, made seeing broad themes across the data set difficult (this challenge is discussed in more detail in Limitations of the Research section).

Although the written report is the final phase of thematic analysis, the writing and re-writing stage was also an essential part of the analytic process (Bazeley, 2009). Through writing up my findings, I was prompted to return to the data with additional questions to be answered and broadened my reading to other healthcare fields such as nursing and medicine to extend my analysis (Bazeley, 2009). To challenge my interpretation of the data, I submitted excerpts of my writings to my supervisors who explored and challenged my findings/processes and assumptions. The final phase of the thematic analysis started when the findings of my study were reviewed for differences and similarities with the existing

literature and related to the research question to form the basis for my discussion (Chapter Five).

Ethical Considerations

This research was granted ethical approval on the 11th of December 2017 by the Auckland University of Technology Ethics Committee (AUTEC), ethics reference number 17/417 (see Appendix D). Three key ethical considerations were considered particularly important: ensuring confidentiality, achieving informed consent, and valuing the risk of harm. Ethical principles applied to this study are discussed below.

Voluntary participation. Informed consent involves providing information to participants about the research, including risks and benefits, and ensuring they have made a voluntary decision to participate (Kaiser, 2009). All participants were over 18 years and were able to communicate in English such that informed consent could be achieved. A plain language participant information sheet detailed in Appendix E provided contact details for the researcher, the purpose of the study, the length of the interviews and the focus of the research. I met with potential participants, and they were given time to read the plain language information as well as ask any questions about the research. They were made fully aware that they could withdraw their participation from the research at any point should they wish to do so. Written informed consent was obtained for all participants at the start of the study (Appendices G and H) and verbally confirmed periodically. One concern regarding obtaining patient consent was that the patient might feel coerced to participate because their treating physiotherapist was a participant. To ensure participants did not feel coerced, administrative staff from the private practices were used to recruit.

Ensuring confidentiality. Confidentiality was maintained for all participants throughout the research. To ensure confidentiality, I did not share information from one

participant to another, I gave pseudonyms to all participants, and video files and transcripts were stored on a password-controlled computer (Liamputtong, 2009). When transcribing video data and text from the recorded interviews, I omitted all identifiable information that was given by the participants, such as the names of people and places, to reduce the risk of deductive disclosure (Kaiser, 2009). I also changed or removed any information that could be linked to a specific clinic or physiotherapist and I obtained a signed confidentiality agreement from the transcriptionist, covering agreement not to disclose, retain or copy information (Appendix I). Personal participant information such as consent forms were kept separate from data, and both were stored in a secure location and a password-controlled computer. A secure document destruction service will be used to destroy hard copies of the data after 10 years, and computer files will be deleted. Before data collection, I informed the participants that the data collected would be anonymised and handled in such a manner that no one outside of the research staff could identify any of the participants. I also informed participants that when presenting the findings, I would use quotes from the interviews and vignettes from observations but that this material would not be connected to any particular person.

Valuing the risk of harm. To ensure the protection of participants, I considered issues related to the researcher-participant power relationship, the vulnerability of participants and the use of video-recording. As an experienced clinician, I considered the issue of the potential inequality of power between myself and the physiotherapist participant. One of the physiotherapist participants, knowing that I was a physiotherapist with some experience, expressed feeling nervous that his practice was being scrutinised by an experienced practitioner. I reassured him that my observations and interviewing were not an evaluation of his performance but instead an opportunity for me to learn from his experiences and perspectives. Since a qualitative research interview is not an open dialogue between equal partners, it was vital for me to make every effort to minimise the risk of harm

(Brinkmann & Kvale, 2015). To make the participants feel comfortable, I maintained a friendly and open demeanour, and I was vigilant to instances when the participants appeared upset. Fortunately, this situation never occurred during the research.

During VSR interviews and video-recording of interactions, I was aware that some participants might have seen and disclosed aspects they had not intended. This might have caused distress, embarrassment, undue worry, or loss of self-esteem (Minichiello, Aroni, Timewell, & Alexander, 1990). To counter possible adverse emotional reactions arising from interviews and video-recording, I advised participants that:

They did not have to answer questions they did not wish to answer.

They could ask for the video recording to be stopped at any time or decline its subsequent inclusion.

They could view the video recording before its use.

I reminded patient participants that they could request the video-recording to be paused during disrobing or covering to maintain dignity. The possibility of patients being video-recorded in a state of undress was also made explicit in the consent process. I reassured participants that all data was only available to the primary researcher and research supervisors who are experienced health professionals, and confidentiality would always be maintained.

It was also recognised that the presence of a researcher might impact on the interactions between the patient and physiotherapist. This might have been particularly problematic if a patient was struggling to engage in treatment. I re-iterated that data collection could pause or stop at any point and that both participants could withdraw from the study at any time. Similarly, if it appeared that the researcher's presence had a negative impact, I would have electively withdrawn from that encounter and discussed the

appropriateness of on-going participation with both participants at a later time. Fortunately, this situation did not occur.

Summary: Chapter Three

This chapter detailed the research methodology and the methods selected and supporting rationale. Additionally, ethical principles were considered and highlighted where appropriate, as relevant to this study. The following chapter will explore the findings that subsequently were constructed.

Chapter Four: Findings

The findings provide detailed and nuanced accounts of body communication in patient-physiotherapist interactions within the private practice setting. Before presenting the research findings, I will briefly describe the characteristics of the patient and physiotherapist participants and describe the clinical environments to assist the reader's understanding of the private practice context in which this research was carried out. This chapter concludes by summarising the main findings and discussing the relationship between themes.

Participant Characteristics

Two patient-physiotherapist dyads participated in the study – two patients and two physiotherapists. All participants were given pseudonyms. For brevity, the findings will refer to the patient participants as 'patient' and physiotherapist participants as 'physiotherapist'. The two male physiotherapists, Simon and Robert (pseudonyms), were owners of and worked at two separate practices and had 17 and 20 years of practice experience respectively. Simon had a master's degree in musculoskeletal physiotherapy. The two patient participants, Kate and Sharon, received treatment from Simon and Robert, respectively. Kate attended physiotherapy for treatment of low back pain and received ACC funding for this treatment. Sharon attended physiotherapy for treatment of temporo-mandibular joint pain. This treatment was self-funded. Additional details about the participants are provided in Appendix J.

Describing the Clinical Setting

The research occurred in two private outpatient, musculoskeletal physiotherapy practices in metropolitan Auckland, New Zealand: Practice A and Practice B. Practice A was owned and operated by Simon. Located in a central, coastal suburb in Auckland, Practice A

had a waiting area and gym space that opened directly onto two small treatment rooms. Throughout the gym and waiting area the walls contained anatomical posters and there was standard physiotherapy equipment throughout this space. The physiotherapy treatment room included a plinth with a single pillow and towels, two chairs for patients, a swivel chair for the physiotherapist, a desk with a filing cabinet, academic degrees hanging above the desk, two small shelving units with physiotherapy equipment and a carpeted floor. Air-conditioning maintained the room temperature at a constant warm level, appropriate for patients likely to require partial undress. There were also numerous items within this space which were less clinical including a television, artwork of the local area, a fridge containing bottled water and kitchenette and family photos on the wall and the physiotherapist's desk. I observed Simon interacting with patient Kate over six sessions. Simon typically organized appointments himself because the practice did not employ administration staff. The duration of each observed session between Simon and Kate was 60 minutes.

Practice B was owned and operated by Robert. Practice B was in an industrial suburb in Auckland. A receptionist greeted and invited patients to sit in a waiting area upon arrival. The waiting area gave way to a sizeable open-floor space that contained a gym area and two large treatment rooms that were separated from the gym by curtains. Practice B had a contemporary atmosphere: there was a lounge-like waiting area with comfortable designer-inspired leather seats, design magazines, chilled water and a coffee machine that patients could freely access. In the hallway leading to the gym area, there was a small table with flowers in a vase. The clinic space was relatively new and decorated in complementary, relaxing colors with soft lighting and furnished in a way more akin to a home than a physiotherapy clinic. A stereo system played soft jazz music throughout the clinic. During treatment sessions, the gym usually had at least two patients exercising at any one time, either independently or while being supervised by another staff member. In the treatment room,

there was a designer mirror with an antique motif frame, a classical acoustic guitar on a stand in the corner and a large white, business desk. More traditional clinical features included an adjustable treatment plinth, a desk, three chairs, a mirror and two large shelving units containing strapping tapes, massage creams, physiotherapy textbooks and rehabilitation equipment. A sizable wall-mounted heater kept the treatment room at a comfortable temperature. On the far wall, a modesty gown hung and close by a smaller chair had two towels folded on it. The treatment plinth was covered by an electric blanket to keep the patient warm. I observed Robert interacting with patient Sharon over three of their four treatment sessions together. An administrator typically booked these appointments. Each session between Robert and Sharon was 45 minutes.

Overview of Findings

The findings present two key themes and associated subthemes constructed through analysis: *atmospheres matter* and *tailoring physiotherapy practices*. Theme one, *atmospheres matter*, explores the role body communication played in creating different clinical atmospheres and how, in turn, these atmospheres created different possibilities for the relationship between patient and physiotherapist. These atmospheres were shaped by the physiotherapist's management of *time and space*, which are explored as subthemes. Theme two, *tailoring physiotherapy practices*, explores the role body communication played in adjusting physiotherapy practices to the individual needs and expectations of each patient. Adjustments were technical or relational in nature. Technical adjustments were conveyed through the physiotherapist's skilful application of task-based physiotherapy work including hands-on techniques, exercise demonstrations, objective assessments, observations and interviews. Relational adjustments occurred through the physiotherapist's responsiveness to the psychosocial aspects of the patient's condition, aspects which were often interwoven with the physical nature of the patient's condition. Together, these themes encapsulated the key

role and impact of body communication in private practice encounters. While the two themes are presented separately as though they were mutually exclusive, in reality, there was a significant overlap between them. Figure 2 attempts to illustrate the overlap between themes and subthemes.

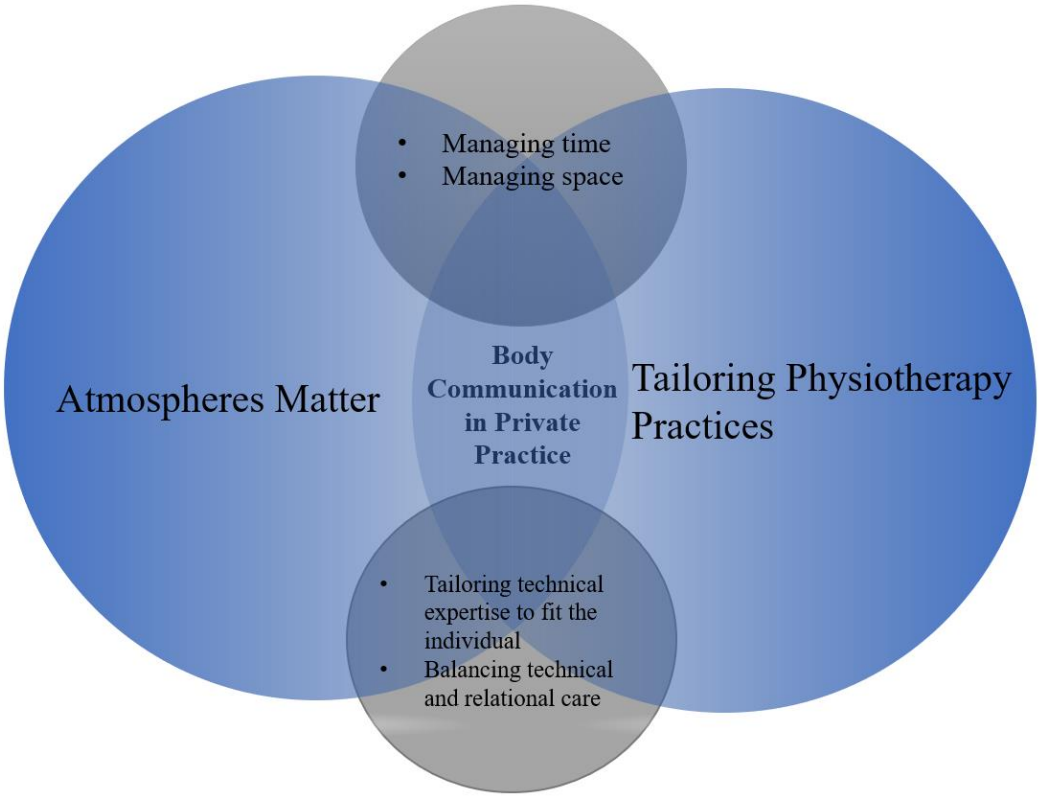


Figure 2. The overlapping themes and subthemes

Theme One: Atmospheres Matter

Body communication was crucial in creating the clinical atmosphere. In this study, the clinical atmosphere was understood as the mood or tone within the clinic and was largely set by the physiotherapist. The role of body communication in creating the clinical atmosphere was evident in two interacting and interwoven elements, the physiotherapist's management of time and space. The clinical atmospheres, and the elements of time and space, were essential for how patients and physiotherapists related to each other and the roles they assumed during

therapy. Although interwoven, for clarity, time and space are presented individually as subthemes and associated dimensions and explored in relation to how they shaped the clinical atmosphere, as demonstrated in Figure 3. Each dimension has been considered separately to highlight the richness and nuances in the data and to illustrate how body communication could contribute to producing particular atmospheres.

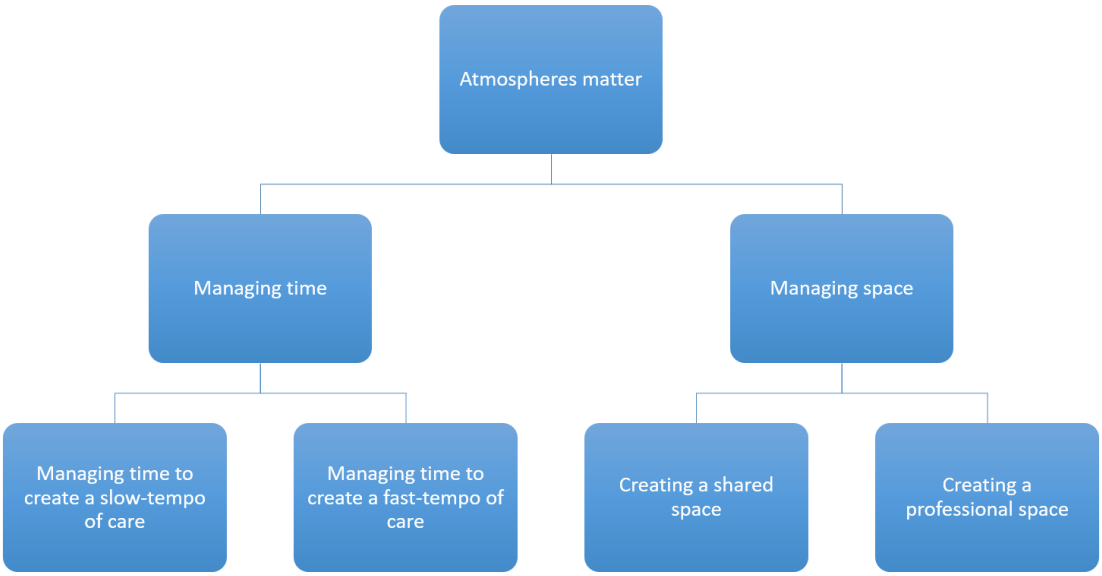


Figure 3. Overview of theme One

Subtheme one: Managing time

How physiotherapists managed time was a critical element in creating the clinical atmosphere. Managing time referred not only to what was done but to how things were done within a specific timeframe.

Managing time to create a slow tempo of care. Body communication was an important medium for physiotherapists to communicate that they had time available for patients. When conveying that they had time, physiotherapists established a slow tempo of care, which created opportunities to get to know the patient as a person and invite and welcome them into the clinic. This helped set the tone and structure for the working

relationship between patient and physiotherapist. The physiotherapist's ability to convey that they had time for patients was particularly important when patients attended their first consultation, where unfamiliarity could be a barrier to establishing the therapeutic relationship. For example, by paying close attention to Kate's body communication, Simon recognised in a VSR interview that the clinic was an unfamiliar atmosphere for her, saying: 'She looks a little bit guarded, most people are because it's a new environment to be in, I'm trying to help her relax' (Physiotherapist Simon, VSR interview one). He responded to Kate's unfamiliarity through his actions of greeting her upon arrival with a handshake, eye contact and warm facial expression, and moving with an unhurried pace as he escorted her into the treatment room. Through his actions, Simon implicitly communicated that there was time for interaction. He invested time to accommodate what he perceived could be a vulnerable situation of coming to therapy. This contributed to an atmosphere in which Kate felt at ease with the clinic space and situation, as she explains: 'Initially, it was a bit of a strange place to be but within a matter of seconds that dissolved because of how he is' (Patient Kate, VSR interview one). Thus, through body communication, physiotherapists could create a therapeutic atmosphere that helped patients overcome their initial fears and apprehension about therapy.

Another way in which body communication conveyed time availability was through attentive listening. Simon made a conscious decision to allocate and prioritise time to listen to patients and invite them to share their beliefs and expectations about treatment, as he explains: 'Some other physios would get straight into it … I'm thinking what their expectations are … we do something a little bit different here … I just set the groundwork' (Physiotherapist Simon, VSR interview one). An example of attentive listening was captured in this field note: 'He attends to Kate's story with a steady and softly orientated gaze, comfortably leaning forward in his chair and nodding without interrupting to encourage her

to continue her story' (Field note, observation one: Simon and Kate). Attentive listening created a relaxed atmosphere that removed time-pressures from Kate and invited her to tell her story and for Simon to get to know her as a person. When Kate sensed this relaxed atmosphere, she responded by becoming more actively involved in the therapeutic process, as she tells:

> He makes me feel not so on edge about things, without it being, you know, we've got a certain amount of time, we've got to focus, we've got to get all this done, you know? I feel relaxed and able to ask him more … without feeling apprehensive about it (Patient Kate, VSR interview one).

Therefore, attentive listening could transmit messages about the availability of time and create opportunities to engage the patient in therapy as well as overcome barriers to engagement.

Conveying a sense of time was also evident in the flow of the therapeutic process. For example, in the initial treatment session, when Kate required more time to complete physical testing due to her painful and limited movements, Simon took the time to ensure his physical demonstration was slow and deliberate. This comfortably paced approach created an opportunity for Kate to learn, process and apply the task at a comfortable tempo. However, the pace of therapy changed over treatment sessions as the situation and patient's needs demanded, suggesting time management was also flexible and responsive. For instance, in later sessions, the tempo of therapy switched, and the therapeutic work started swiftly upon Kate's arrival at the clinic, with Simon quickly moving into focused physical demonstrations and physical activity. The tempo of therapy mirrored Kate's improving condition but also, her familiarity with the routine and Simon himself:

> …he just carries on with it and does what he needs to do and I've also gotten used to the routine, you know, I come in and we talk about it and we do the exercises and he does work on my back and things like that so I think it's all just a matter of time. It's become like clockwork as well and the

> entire time he's really professional, he's really good, he keeps things kind of moving along (Patient Kate, VSR interview three).

Thus, time was managed differently in later sessions as the earlier investment of time to promote patient engagement and build relationships resulted in familiarity both with each other and the therapeutic process. In Simon's case, the initial investment of time allowed him to later adjust the pace of therapy as appropriate, allowing treatment to proceed more quickly, or in Kate's words, 'like clockwork'.

During interviews, Simon emphasized he valued having 'sufficient' time, commenting that by intentionally scheduling longer appointments, he was able to convey that he had time to spend with his patients instead of 'running from room to room' (Physiotherapist Simon, VSR interview two). However, it became evident in interviews and observations that conveying time involved more than longer appointments; it included the physiotherapist's ability to create the *impression of time*. Creating the impression of time occurred when the physiotherapist communicated a sense of presence. This field note captures Simon's ability to convey presence through his gaze and body positioning:

> He's not focused on anything else apart from the patient on the bike. He's not looking at his watch or the clock on the wall or staring off into space; he keeps looking to the patient and orientates his body towards her. He appears 100% focused on the patient at that moment. (Field note, observation two: Simon and Kate).

Furthermore, by not watching the clock, Simon tacitly communicated that his complete attention was on Kate and the task at hand. Kate elaborated on the way Simon's body expressed a sense of meaningful presence:

> He turns his whole body to you versus when you're sitting at a desk it's very easy to continue writing, and so he kind of opens that up when he turns and communicates with you straight on… I know he's only got a certain

> amount of time, but you never feel like it's rushed (Patient Kate, VSR interview two).

The physiotherapist's ability to filter out unnecessary distractions and maintain focus solely on the patient also created the impression of time. For example, despite my presence and a camera within a confined treatment space, Simon always kept his attention focused on Kate, demonstrated through his constant eye contact. The impression of time could also be conveyed quickly and co-occurred with other physiotherapy work as illustrated in Simon's quote: 'I was writing my notes, but I tried to look up as soon as my sentence is done, I try to look up again and get that eye contact once more so that she knows my focus is on her' (Physiotherapist Simon: VSR interview one). Because attentive actions were often brief and coincided with other tasks, they did not take time away from the session, ensuring physiotherapists could maintain the pace of therapy while keeping patients involved.

In summary, this section has shown how body communication enabled physiotherapists to convey having time for patients. This was important as it contributed to an atmosphere that fostered patient engagement in therapy and set the foundation for the therapeutic relationship. The physiotherapist's ability to communicate time not only involved the actual time allocated for the session but included how physiotherapists managed the time available in the session. The initial investment of time to promote patient engagement and build relationships enabled physiotherapists to adjust the way they managed time in later sessions to suit the patient's needs and the situation at hand. The next section discusses how time, when handled differently, could create a fast tempo of care which also had implications for the patient's engagement and participation in therapy.

Managing time to create a fast tempo of care. When physiotherapists perceived or experienced time pressure, they managed time by increasing the tempo of care. When they needed to work quickly, physiotherapists conveyed through body communication that their

focus was on the patient's impairment and diagnosis rather than their emotions, experiences, and context. This communication style could result in a more one-sided, physiotherapist-dominated interaction where the patient was primarily treated as an object of care rather than a person actively involved in his or her own care.

A fast tempo of care was particularly evident when physiotherapists felt time pressure. Time pressure was almost instantly conveyed through the physiotherapist's body communication, as this field note illustrates:

> Robert is running 15 minutes late, and his fast movement reflects his lateness. Upon collecting Sharon in the waiting area, he quickly ushers her towards the treatment room and walks ahead, entering the treatment room and seating himself first (Field note, observation one: Robert and Sharon).

The appointment started with a delay, but Robert simply and quickly established the tempo and tone of the therapy session through his walking pace to the treatment room. Robert also controlled the length and content of his conversation with Sharon, which may have reflected the delay at the start of the appointment. This was accomplished through body and verbal communication. In this extract from the first encounter, Robert was sitting at his desk with his whole body orientated towards his computer as he gazed at Sharon's medical records. Robert maintained his gaze and body orientation throughout the interactional sequence only briefly looking up or gesturing to signal for Sharon to speak.

> Robert: After reading the referral from Sharon's doctor on his computer, he quickly announces: *'Ok, so jaw. So, when did it start to bother you?*'
>
> Sharon: Looks towards Robert, who keeps looking at the computer: *'Probably somewhere between two and three years ago'.*
>
> Robert: *'About two years ago, did you say?'* Briefly looking up from the computer, he gestures towards Sharon, signaling for her to speak.
>
> Sharon: *'Yes… ah…'*

> Robert: Almost before Sharon completes her answer, Robert quickly returns his gaze to his computer screen. He then asks briskly and matter-of-factly: *'Any particular reason?'*
>
> Sharon: *'I have no idea. It just started clicking'.*
>
> (Observation one: Robert and Sharon)

In this extract, Robert used body communication to obtain short responses from Sharon to quickly gather clinical information. For example, by briefly gazing at Sharon and promptly returning his gaze to his computer, Robert communicated which information he deemed more relevant and kept Sharon's responses brief. Robert's interaction style, although efficient, resulted in him dominating the conversation and focusing on Sharon's impairments while Sharon mainly took the role of a passive responder. However, there were subtle shifts in the tone and tempo of the therapy. This was observed when Robert encouraged Sharon's participation by leaning forwards, making eye contact, and using gestures to help her elaborate on her responses, reiterating the point made earlier that time management can be flexible and responsive, yet in this example, was still determined by the physiotherapist rather than the patient.

Another way that physiotherapists managed time pressure was by quickly and objectively performing task-based physiotherapy work with minimal communication and interaction between themselves and patients. For example, Robert used precise touch and handling to swiftly diagnose Sharon's physical problem, remaining silent and closing his eyes to minimise distractions. Robert describes his approach saying:

> the purpose of closing my eyes is to get 'in tune' with my tactile sensation; I find that if I keep my eyes open, I can't do it, yeah… I have to concentrate on what I am doing (Physiotherapist Robert, VSR interview two).

However, by placing the focus on performing therapy efficiently, there were fewer opportunities to invite patients to participate in their own care. As a result, the physiotherapist

was positioned as an active performer and the patient as more or less a passive recipient of care. For example, during the hands-on assessment, despite being close to Sharon, Robert did not explicitly interact with her or adjust his handling in response to her pained facial expression, which was observed and documented in the field notes. Sharon reflected upon this moment during therapy in an interview:

> Sharon: It's interesting here that he has his eyes shut while he's treating me, I'm guessing that's just for concentration, um, as to where he's putting pressure, um, but by doing that I suppose it means he's not gauging my facial reaction if I'm in pain, which I think is quite interesting.
>
> Clinton: *Interesting how?*
>
> Sharon: It's caring about the patient but differently, I suppose by doing one thing and intensely concentrating on what you're doing, it compromises your ability to see the impact on the person directly.
>
> (Patient Sharon, VSR interview one)

Sharon's comment regarding *caring about the patient but in a different way* seems to suggest that Robert was focused on treating her physical impairment and *fixing* her rather than inviting her to play an active role in therapy.

Robert recognized that time pressures influenced his body communication, but viewed these constraints as inevitable and outside his control:

> I never read the notes before patients; there's no time for that. It can look like, that I'm not paying attention to her, that I'm just looking at something else not relating to her condition …but that is something I cannot change and even if the patient does feel a bit …what's the word, um, put off by that action, well, what can I say? (Physiotherapist Robert, VSR interview one).

In addition to Robert's feelings that he did not have enough time to give Sharon his undivided attention, time pressure seemed to reflect the greater value he placed on performing task-based physiotherapy work over establishing a relationship with his patient. Time is money in

private practice, which Robert reflects in his focus on providing hands-on treatment: ‘To be brutally honest, we are trying to earn money’ (Physiotherapist Robert, VSR interview two). Observations supported this idea as Robert invested significantly less time listening and getting to know Sharon and more time performing hands-on treatment. As such, time seemed to hinder communication more in this example because of the greater value that Robert placed on conducting therapy over establishing a relationship with his patient.

Sharon appeared to accept that time spent performing therapy was a significant part of the way that Robert worked. The time Robert allocated to doing therapy did not appear to negatively influence the outcome of treatment nor Sharon’s participation in the physiotherapy regime as she attended all her scheduled appointments, demonstrated adherence with her exercises, and her symptoms improved. This would suggest that a fast tempo of care was not inconsistent with Sharon’s expectations of therapy. However, expectations could change over time as highlighted in this comment from an interview with Sharon:

> I came in with a hope that there’d probably be more discussion of how the previous weeks had been before going into treatment, in case that discussion influenced the type of treatment that could take place… It gave this feeling that he already had a notion in his head of what he needed to do and maybe wouldn’t adapt to anything that I was going to say because I wouldn’t have a chance at the beginning to explain what had been happening in the week if there had been anything major. [He was] kind of in a rush to do the treatment rather than discuss my condition… Kind of like treat the patient and get them out the door kind of thing…. (Patient Sharon, VSR interview two).

Thus, regardless of the quantity of time patients received from the physiotherapist, if needs and expectations were not met, patients could perceive time as insufficient. Consequently, there appears to be a need for physiotherapists to be flexible and responsive with their time management to accommodate the patient’s changing needs and expectations.

A fast tempo of care illustrates how, using body communication, time can be made more efficient when physiotherapists prioritise a more clinical, impairment-driven approach. Although this fast tempo of care limits opportunities to get to know patients as individuals and decreases the active roles that patients have in therapy, this approach is not necessarily problematic unless it deviates from the patient's needs and expectations of care. However, a fast tempo of care tends to make physiotherapists less sensitive to the patient's subtle bids (usually nonverbal) to be more involved in the therapeutic process. This highlights a need for physiotherapists to use body communication responsively to adjust their time management to suit the needs and expectations of the patient.

Managing time: a summary. Despite the fixed duration of the session, physiotherapists managed time differently. Through body communication, time could be made slower and more personal, creating an atmosphere that invoked a sense of inclusion, safety and holistic care. Body communication could also make time faster and more efficient, creating an atmosphere that was more formal and clinical. Patients responded to these different tempos through varying levels of engagement with therapy.

Subtheme two: managing space

Space was the second dimension which contributed to the clinical atmosphere. Space referred not just to the physical environment in which therapy took place, but crucially, how patients and physiotherapists produced particular kinds of interpersonal spaces through their body communication within the clinic space. Space was not fixed but continuously produced and negotiated through body communication in ways that shaped the patient's participation in therapy.

Creating a shared space. The way physiotherapists worked in the space between themselves and patients could create a *shared space*, within which the patient's participation

in therapy was fostered. A clear example of this was taken from a field note detailing Simon observing Kate perform an exercise: 'After demonstrating the exercise to Kate, Simon positions himself at a slight distance from her and is quiet as he observes her perform the exercise' (Field note, Observation two: Simon and Kate). Although Simon was at a distance, his constant eye contact communicated his attention and active involvement. By giving Kate space but demonstrating his engagement, Simon achieved a balance between encouraging Kate to take the lead in her rehabilitation, on the one hand, and guiding Kate and directing the therapy process. This had the effect of enabling Kate to engage in a mutual interaction and a shared activity. In this example, there was a sense that Kate and Simon not only occupied the same physical space but by providing just the right amount of distance and closeness, Simon invited Kate to move from a purely professional space to a more personal one. Thus, shared space emerged relationally between the patient and physiotherapist.

Physiotherapists being on a *similar level* to patients also achieved a sense of shared space. Being on a similar level could be geographical or metaphorical and communicated a sense of respect and mutuality where the physiotherapist was not above, better or different to the patient. Geographic examples included physiotherapists performing exercises alongside patients as opposed to in front of them and according to Kate being '…very much on the ground doing things…' (Patient Kate, VSR interview two). Additional geographical examples included being on a similar physical level. Most often, physiotherapists did this by sitting down and maintaining eye contact with patients. Kate was aware of Simon's efforts to get on her level and commented on this during an interview: '…He gets down to my level…I don't know what I would have thought about it if he was standing up and leaning on or standing there watching me, would have been completely different' (Patient Kate, VSR interview two). Physiotherapists described using chairs of the same height and reducing the physical space between themselves and patients which also seemed to convey a sense of

being on the same level, as Simon describes: 'I'm trying to make her feel comfortable, I'm nice and close, I'm a bit lower than her, I'm not talking down to her' (Physiotherapist Simon, VSR interview two). Although Simon adjusted seating so he could be close to Kate, he did this in a way that communicated an awareness of the power differential relating to his expert status and role by sitting corner to corner with her, rather than across the desk from her.

Being on a similar level was also achieved when physiotherapists were sensitive with their use of touch and used body communication from the patient to guide how they used touch in individual circumstances. For example, Robert described the importance of respectfully approaching patients and positioning before initiating touch: 'I am careful of approaching them, bit slowly…like I wouldn't go like whack face to face, so I step, I tend to be slightly off, offset, slightly below, slightly away not right bang there' (Physiotherapist Robert, VSR interview two). Being on a similar level also was symbolic of the physiotherapist's ability to work at a level that was matched to the physical capacity of the patient. This was evident when Simon moved slowly alongside Kate and helped her navigate an unfamiliar exercise and in Robert's careful physical demonstration which reflected Sharon's difficulty with a particular exercise. Patients seemed to respond to this balancing of power through engaging in therapy, reinforcing the earlier claim that shared space was achieved relationally.

In summary, *creating a shared space* has illustrated how, through body communication, physiotherapists could not only communicate their recognition of the power differential but were able to take steps to minimise this imbalance. This contributed to a space that was inviting and personal, creating a shared and collaborative atmosphere. This space reduced the physical and metaphorical barriers to communication and facilitated the patient's engagement in therapy. Alternatively, as the next section explores, physiotherapists could

construct space in a way that emphasised the professional nature of the interaction, which made it challenging for patients to engage in therapy.

Creating a professional space. The way physiotherapists worked within the space between themselves and patients could contribute to a more professional space. When physiotherapists worked in this way, there was a sense that although the patient and physiotherapist co-existed in physical space, there was no sense of mutuality or shared space. A professional space could, therefore, inadvertently function as an exclusionary space in which the patient's participation in therapy was restricted.

Close, highly vigilant observation of the patient's impairments during physical examination led to physiotherapists controlling the therapy space and how patients worked within this space, thereby limiting the patient's ability to participate in therapy. For example, when Robert observed Sharon's movements in front of the mirror, he often stood immediately behind her, leaning his body forward towards her. While leaning in, Robert commented on and corrected Sharon's performance using verbal instruction, physical demonstration, and precise physical guidance through touch. Although Robert's control of this process ensured he achieved his professional aims, his scrutiny of Sharon's performance prevented her from making mistakes and thus did not let her evaluate her performance and learn from her errors. It was partly in Sharon's response to Robert's actions that this control was evident. For instance, she was observed to remain silent, as though she was complying with his instruction (Observation two, Robert and Sharon). Physiotherapists' control of space was also apparent when they spoke to patients from an elevated position (i.e., looking down at the patient as they were reclined on their back), or in front of them. In these instances, space was not created reciprocally since physiotherapists determined the positioning. Because patients were unable to regulate the distance between themselves and physiotherapists, except to turn away, an asymmetrical interaction seemed to arise. Thus, although the physiotherapist

could be physically present and close to the patient, this proximity was not in itself sufficient for the patient and physiotherapist to truly share space and collaborate in therapy.

Body communication could also convey the value that physiotherapists placed on profession-specific knowledge rather than the patient's subjective experience. This accentuated the power differential between patient and physiotherapist, with physiotherapists as sole expert decision-makers, responsible for defining the patients' problems. This was evident in the extract below which shows how Simon used observation, body positioning, proximity and a goniometer (a technical instrument which measures joint angles of the body) to quantify Kate's movement problem:

> Kate is standing facing the treatment plinth with her hands placed on the side of the plinth. Simon moves close to place the goniometer against the right side of her body, axis at the hip. One hand holds one plastic arm against Kate's waist; the other holds the other arm against her upper thigh. Simon squats so that he is level with the axis of the goniometer. He asks her to bend forward as he closely follows the movement of her trunk with the goniometer arm and his gaze. He observes Kate stop abruptly and checks with her – "got pain there?" "Yep", she replies. Simon turns his back to make a note of the angle defined by the goniometer and compares this measurement with the previous session. He tells Kate: "You're about the same." Kate sound surprised and disappointed in her vocal intonation: "Oh, really?!" She slowly lowers her head and appears pensive and withdrawn from the interaction. (Observation two: Simon and Kate).

In this extract, Simon's close monitoring of Kate's movement communicated that his professional knowledge and expertise was more valuable than Kate's personal experience of movement as if the objective evidence superseded Kate's experience. The value Simon placed on his professional knowledge and expertise was also evident during interviews as he prioritized objective observations in his clinical reasoning but not Kate's body

communication. He was aware of this and discussed this in his VSR interview as he watched Kate's bodily response to testing:

> I could tell by her body language that she was a little bit disappointed…but for me clinically, I can't expect that after sticking some tape on her she would have been able to go that far forward so I've blocked that, I was happier that she could be a little bit straighter (Physiotherapist Simon, VSR interview one).

Thus, through body communication, physiotherapists could prioritise their professional knowledge over patients' knowledge and experience of their condition, reinforcing their dominant position within the clinical space while inadvertently positioning patients as objects of assessment. This could result in the patient's problem becoming decontextualized in that their impairments were considered in isolation from the rest of their bodies and their personal and social context.

The way physiotherapists used and arranged objects within the clinic space could function as a barrier to communication and reinforce the physiotherapist's control of space. For example, Robert sat behind a large business desk in front of and at a distance from Sharon. Robert's side of the desk was dominated with numerous items including a large business telephone, computer, files and stationery items, whereas Sharon's side of the desk was empty. The desk, items and spatial arrangement not only reinforced an impression of control but seemed to communicate a physical and metaphorical barrier to involving the patient in therapy. This was evident when Robert began the subjective interview by directing his gaze more toward the computer than Sharon. A physiotherapist's attention towards computers or clinical notes also bolstered their position of expert through their use and control of information about the patient. In some instances, objective information was seen to be valued over the patient's subjective experience. By way of example, by turning to face the computer while posing questions seemingly designed for Sharon, Robert's actions conveyed

the computer as the source of most valuable information, rather than Sharon's perspective. Later in the subjective interview, Robert interrupted Sharon mid-sentence and quickly returned his gaze towards the computer. Robert's swift orientation to the computer just as he sought to establish the facts of Sharon's case reinforced that he considered the computer as a more reliable and authoritative communicator than Sharon herself. Thus, the location of objects within the treatment space and how physiotherapists communicated with these objects (i.e., computers) could serve as both a physical and metaphorical barrier to involving the patient in therapy.

In summary, this section has examined how through body communication, physiotherapists could construct space as shared and collaborative, inviting communication and patient engagement in therapy or as a purely professional space where the physiotherapist conveyed control and dominance of space, thereby creating a barrier to the patient's involvement in therapy.

Summary of theme one: atmospheres matter

Theme one, *atmospheres matter*, identified that the clinical atmosphere was constituted by two interacting and interwoven dimensions: the physiotherapist's management of time and space. These dimensions markedly shaped and informed the atmosphere of care. Together, these dimensions contributed to producing either a slow tempo of care and shared space where patient and physiotherapist interacted on a more equitable, participatory basis or a fast tempo of care and more professional space, characterized by a one-way, unidirectional, unidimensional approach where the physiotherapist dominated the interaction and the patient was positioned passively. Therefore, atmospheres mattered because they created different opportunities for patients to participate in their own care and shaped the relationship between patient and physiotherapist. While this section focused on the overarching atmosphere

between patient and physiotherapist, in practice, not only could there be a blurring of atmospheres to some extent, but atmospheres were fluid and often shifted both within and between sessions. The intention with the analysis was not to promote one atmosphere as *good* or *bad*. Whether the atmosphere was good or bad appeared related to the patient's values, preferences, and expectations of care. This suggested that physiotherapists needed to tailor the clinic atmosphere and their use of time and space to meet specific patient needs and expectations. The role and impact of body communication in tailoring physiotherapy practices is explored in theme two.

Theme Two: Tailoring Physiotherapy Practices

Through body communication, physiotherapists tailored what they did and how they worked to fit patient's individual needs. Because patients' needs constantly shifted over time, tailoring was an on-going process which involved physiotherapists continuously adjusting their approach to the patient's needs in the moment and over time. Adjustments could be technical or relational in nature. This study identified that technical *and* relational aspects of care were important and valued forms of physiotherapy practice for patients and physiotherapists alike. The physiotherapists' skill at tailoring technical care is reflected in the first subtheme: *tailoring technical expertise to fit the individual*. The physiotherapists' skill at balancing the technical and relational aspects of care is explored in the second subtheme: *balancing technical and relational care*. This section will show how body communication was key to the process of tailoring physiotherapy practices.

Subtheme one: tailoring technical expertise to fit the individual

Technical care was prominent in the practice of both physiotherapists in this research and was viewed as an important and expected part of physiotherapy care by patients. Although patients expected and valued technical care, they also felt that it was essential that

physiotherapists demonstrated that they were tailoring their technical work to fit the patient's individual needs, as Sharon describes:

> There is an expectation that you are going in there, you are going to receive expert treatment, and it's going to resolve or at least help your problem. But I think there is also an expectation as a patient that when you come to physiotherapy that your physiotherapist is an expert in terms of their ability to read body language because their job is really to manipulate your body… (Patient Sharon, VSR interview two).

The value Sharon placed on technically tailored work was also evident during her final interview, where she emphasized the importance of Robert providing specifically tailored exercise that utilized technical touch:

> The biggest thing was demonstrating to me the exercises I should be doing, showing me physically how to do them, very hands-on… It was especially helpful him coming over and showing me exactly how I should move my mouth exactly and showing me exactly where I should be putting my hands to feel the jaw joint (Patient Sharon, VSR interview two).

As Sharon's comments suggest, while the physiotherapist's technical work was important, *how* they did it was critical.

Physiotherapists tailored their technical work in a number of ways. Providing individualized exercise prescription, physical demonstration, and making micro-adjustments during hands-on intervention were aspects of technically tailored care observed during interactions. One commonly observed aspect of tailoring technical care was the ability of the physiotherapist to work at the level of the patient by adjusting the pace of treatment, as introduced in theme one, managing time (refer to page 76). As an example, Simon changed the pace of his physical demonstration by slowing his movements to mirror Kate's painful and restricted movements and the difficulty she was having with this task. Similarly, Robert adjusted the complexity of exercise and his instructions to accommodate Kate's specific

learning needs. Robert's based his adjustments on the reaction he observed in Sharon's uneasy facial expression, as he explains: 'There's a moment there where there's a little nervous smile and she really wasn't getting it. This indicates to me that she's not quite sure if she's doing it correctly or not, so therefore the continuation of trials' (Physiotherapist Robert, VSR interview two).

Physiotherapists also tailored their technical care through fine-tuning therapeutic touch based on reading the patient's body communication. For example, Robert was often seen to adjust his touch during hands-on intervention by making small changes to the pressure and movement of his hands in terms of direction, speed and range. According to Robert, these adjustments occurred in response to sensing Sharon's muscular tension and changes to her breathing and observing facial expressions, saying: 'I look for the obvious markers like whether they're tense under my hands or what their breathing or facial expression is…' (Physiotherapist Robert, VSR interview two). In the example provided from the observation above, the communication between Sharon and Robert was through Sharon's bodily reactions to Robert's touch. Robert seemed to recognise this and alluded to the value of a patient's body as a medium of communication with the physiotherapist: 'Because I sensed she was twitching, but she didn't tell me, and that often happens with patient, it's not, I don't think it is their nature to tell me straight away, so I have to pick it up' (Physiotherapist Robert, VSR interview two). Based on this, the assessment and treatment process could be *more* than just technical skill and viewed as a 'physical conversation' between patient and physiotherapist in which the patient's body communication informed ongoing adjustments in care.

Technically tailored touch was also a medium through which physiotherapists demonstrated to patients that they understood their bodies. This responsive touch was vital for meeting patients' expectations of physiotherapy care and gaining patient's confidence and

trust. For example, Robert recognised that conveying sensitivity to Sharon's bodily responses through touch was an important part of communicating technical expertise, which he considered vital in gaining patient trust:

> There is a difference in the quality of touching and patients can sense that, that through touch, this therapist is in with me here, paying attention to what my body is doing. When the quality of the touching is more in tune with what the patient is feeling… What will the patient perceive as about that? Well… the physio knows what he is doing…and it's through the hands-on therapy that she gains trust in me and only when she gains confidence, will she be on the ball with what I am saying… (Physiotherapist Robert, VSR interview two).

Sharon agreed that tailoring treatment in response to her body communication was a critical part of a physiotherapist's ability to convey technical expertise:

> To feel what's wrong and with that comes the understanding that they understand physical responses … there is an expectation that they should be able to tell automatically from the way that you physically respond to something, what's going on … because that's their level of study or expertise (Patient Sharon, VSR interview two).

While physiotherapists communicated expertise through technically tailored care, patients were conscious that their own bodies communicated information to the physiotherapist. This was alluded to in Kate's reflection on Simon's hands-on treatment: 'He knew exactly where he pushed and what reaction that caused and instantly, he knew that wasn't right' (Patient Kate, VSR interview three). Kate's reflection reinforces that the body could be a valuable form of communication between patient and physiotherapist.

Physiotherapists saw the need to tailor technical work as constant and ongoing. For example, Simon highlighted the necessity of being there the 'whole time' to adjust to the patient's responses:

> She relaxed and then when I went over a few pain areas the whole paraspinal muscles got tight again, I could see it and then I could feel it, I could see out the corner of my eye it is happening a little higher up and then I could feel it... So, I'm looking at how she reacts to the treatment the whole time. I'm changing how I'm treating with my hands as to how I feel her muscles react (Physiotherapist Simon, VSR interview two).

Through constant attention, physiotherapists received a continuous flow of body communication from patients that allowed them to make immediate and continuous modifications to their therapeutic approach and to accommodate the patient's needs. Body communication ensured that therapy proceeded without 'interrupting the flow' (Physiotherapist Simon, VSR interview two) or relying on verbal communication, as Robert explains: '…The patient can't give me a running commentary every second on what's he or she is feeling and a lot of it depends on how I perceive what the patient is feeling…' (Physiotherapist Robert, VSR interview two). The physiotherapist's constant attention was thus a prerequisite to tailoring technical care and the efficient accomplishment of the session.

In summary, technical care was not merely about *what* physiotherapists did, but *how* they did it. How physiotherapists performed technical care was facilitated and conveyed through body communication. This nuanced, responsive technical care was necessary for gaining patient trust and confidence, engaging patients in physiotherapy, addressing the patient's needs and ensuring the therapeutic process stayed focused. In the next subtheme, how body communication enabled physiotherapists to balance the technical and relational aspects of care is explored.

Subtheme two: balancing technical and relational care

Body communication was crucial in providing technically tailored care that met the patient's immediate physical needs and helped engage them in therapy. However, it was evident from interviews and observations that technical care alone was not always sufficient

to meet the patient's needs and fully engage them in therapy. In these instances, physiotherapists needed to tailor their approach to provide technical *and* relational care. Through body communication, physiotherapists could not only integrate technical and relational care into their practices but provide the right *blend* of these components. During an interview, Robert recognised the importance of attending to the psychosocial and physical aspects of the patient's condition, rather than focusing on the physical elements in isolation:

> It's not just about impairment; it's about how they handle it, how they function as a human being and participate. So, being able to provide that care, nonverbal communication is an important aspect and an important skill to be able to cultivate (Physiotherapist Robert, VSR interview two).

Kate also felt that in her situation, physiotherapy needed to be tailored to respond to her needs as a person, including the emotional impact of her injury:

> For me, it's debilitating because every day I was working out and I changed my lifestyle so much. So, everything just came to a standstill, so there's been a lot of frustration about it... So, it's little things that he keeps in mind and he takes the time to fuss about them, you know? Otherwise, people don't care; doctors and professionals don't really care, do they? They do what needs to be done. (Patient Kate, VSR interview two)

Kate's quote highlights a distinction between being cared for in a technically competent manner and being cared for as a person and indicated Kate's expectation that Simon balanced between technical and relational care.

A crucial part of responding to the patient's psychosocial needs was recognising the emotional component of a patient's body communication. This recognition was particularly crucial because patients seldom explicitly expressed their emotions verbally as Robert acknowledged during an interview:

> … some patients will not voice their concerns, right? They'll come and they're sore and they're unhappy, but they don't voice it, right? Either that

> or they don't turn up for the next appointment… It's our duty to, I mean if you're providing good care, it's our duty to be able to recognise that (Physiotherapist Robert, VSR interview three).

In VSR interviews one and two, Simon provided detailed examples of sensing and interpreting Kate's body communication including posture, facial expressions, vocal intonation and bodily tension to gain knowledge about her psychosocial needs and context:

> She seems quite rigid, and she has her hands braced. I don't know because of the epidural pain; she never wants to lean back against the chair. So, the whole time I get a vibe from her that she is always in this protection phase.
>
> There are a few facial expressions that I can sense that she is in pain, putting on a bit of a brave face as well, whether that's just the way she is. She does boot camp a lot, so, there'll be goals, she's a busy mum but she hasn't taken on that 'poor me' persona. She seems to be putting on that she's strong. I get that impression from looking at her. But she's guarded at the same time because of the physical pain, so I'm reading into that picture of just how she sits, how she talks to me.

In these examples, Kate's body communication not only provided valuable information about her physical impairment but also highlighted to Simon that her injury had an emotional impact. By using verbal *and* body communication, Simon developed a deeper and more nuanced understanding of her needs than verbal communication alone. Body communication, therefore, allowed Simon to obtain a broader understanding of Kate and the context and impact of her injury. A more holistic picture of the patient where their physical and psychosocial needs were recognised was facilitated by the physiotherapist creating time and space, as introduced in theme one, *atmospheres matter*.

When physiotherapists addressed the technical and relational aspects of care, they did this in an integrated way, addressing both together. Through body communication, Simon simultaneously performed both technical and relational care and provided the 'right' blend of

these elements. One example of this was seen when Simon demonstrated an exercise to Kate. In this example, technical care was evident in Simon's precise, efficient and confident physical instruction which emphasized to Kate the expected performance and 'correct' way of moving. However, by using a soft voice and warm facial expression to deliver his instruction, Simon integrated precise physical demonstration with a sense of caring and acknowledgement that moving the correct way was difficult. Simon was also sensitive to Kate's anxiety during this unfamiliar task from her facial expressions and empathized with her vulnerable situation by moving closer and putting his hands up to convey the message that she was safe. This empathetic action transformed a potentially insecure environment into a safe space where therapy could be effectively delivered. It served to put Kate at ease and therefore allowed Simon to engage her more fully in the therapeutic process. Simon's responsive actions not only attended to Kate's need for emotional security, but simultaneously ensured that treatment occurred proficiently, and thus also conveyed technical care. Therefore, technical and relational care as found in this study were interdependent.

The physiotherapist's ability to demonstrate an understanding of the patient's psychosocial needs rather than solely focusing on the physical aspects was perceived to bring the patient and physiotherapist affectively closer and fostered the sense of working collaboratively. This quote from Kate's final interview is illustrative of this sense of working collaboratively:

> So, it's just the little things that he incorporates that makes you feel that the care level's high and that's just important, important to me as a person as well to make me feel like he's feeling my pain, he wants to help me, you know get me back to where I was and things like that (Patient Kate, VSR interview three).

Simon used his technical expertise to address Kate's physical needs and his relational skills to engage her more actively in the therapeutic process enabling her to become a partner in her

rehabilitation. When there was a sense of collaboration, the physiotherapist seemed to take on the role of working *with* the patient on their journey to recovery, rather than doing therapy *to* the patient. This idea was in line with observations and a sense of shared space as discussed on page 84, where Simon worked alongside Kate, facilitating therapy through a process of observing, providing visual and physical feedback and constantly tailoring his approach. This sense of collaboration also empowered Kate to take more control of her situation, as she explains below:

> I feel like I'm serious about it for the first time in my life, and I've got someone who's just as serious about it to make sure I'm back on the right track…I would typically be that person that would be like, 'let's make this easy…' I want to make sure I learn, and I do it right and I work on my core and leave here with the right lessons and principles …for the first time in my life it's top of the list (Patient Kate, VSR interview two).

The examples provided in this section also illustrate that although technical care was prominent in physiotherapist's practice, body communication could mediate this technical work which could otherwise run the risk of being impersonal and mechanical. Kate's quote from interviews supports the mediating role of body communication:

> Like even things that we had in our first session, so he's going through it and making lots of notes, but at the same time I don't feel like he is, you know sometimes you feel some medical experts just carry on with their notes, but he is constantly, listening to what I am saying, picking up on that, jotting things down at the same time (Patient Kate, VSR interview two).

Observations confirmed Kate's comment. For example, as Simon wrote notes, he sat with his body turned towards her, leaned forward in his chair, and regularly confirmed her experience through eye contact, nodding and tone of voice. Simon also described explicitly attending to the relational aspects of care during this technical task: 'I learn not to be writing down the whole time, to face to observe how they're feeling, which way they're leaning, their facial

expression' (Physiotherapist Simon, VSR interview one). Thus, through body communication, the physiotherapist mediated what could otherwise be very impersonal technical work, making it more responsive to the person and the context.

The way physiotherapists integrated and balanced technical and relational care appeared to develop throughout therapy as the patient and physiotherapist got to know each other and their relationship developed. The following extract illustrates how both Kate and Simon seemed to be attuned to each other and were able to notice subtle changes in each other's body communication during the performance of an exercise. This attunement allowed them to regulate the pace of exercise by continually adjusting their movements to one another. In this excerpt, Simon performs an exercise together with Kate, skillfully controlling the speed of the physical demonstration by providing a slow tempo and rhythm to the movement as Kate follows. Kate, at first, carefully mirrors Simon's movement but quickly develops her own rhythm which Simon then synchronizes to. Simon's gaze and positioning were dynamic and responsive to the situation. For example, as Kate momentarily loses balance, Simon immediately slows his movements and conveys concern for her by gaining eye contact to check she is comfortable. As they continue together, Simon's movement hastens as he appears to sense Kate's growing confidence and eagerness to progress. This demonstrates a dynamic interplay involving highly-attuned, moment-to-moment sensory-guided adjustments involving both Simon and Kate. Although there was silence between them, they both highly engaged in therapy in terms of body communication. Although this 'physical conversation' occurred without words, it appeared that Kate felt understood by Simon. As she put it, there was 'no need to say much; he knew straight away' (Patient Kate, VSR interview three). Thus, through being attuned continuously to each other over time, the patient and physiotherapist were able to seamlessly integrate multiple, complex technical and

relational strategies into their interaction. This attunement created a smoothness or flow to therapy that was not as evident in earlier sessions.

In summary, balancing technical and relational care occurred through body communication. This balanced, integrated approach promoted a strong professional collaboration, where the patient felt empowered to take a more active role in their recovery. In this way, integrating technical and relational care allowed physiotherapists to engage patients in the therapeutic process more fully and was therefore seen as a core element of professional physiotherapy practice.

Summary of Findings

The purpose of this research was to explore the role and impact of body communication within a physiotherapy private practice setting in New Zealand. Two themes were constructed from data analysis. The first theme, *atmospheres matter*, described how the physiotherapist's body communication played a crucial role in creating different clinical atmospheres through the management of time and space. Together, these interacting and interwoven dimensions of time and space influenced and shaped the relationship between patient and physiotherapist. The second theme, *tailoring physiotherapy practices*, highlighted how body communication was the medium through which physiotherapists tailored physiotherapy practices. In the first subtheme, *tailoring technical expertise to fit the individual*, the physiotherapists' skill at adjusting technical care was essential for gaining and maintaining patient trust and confidence, meeting the patient's physical needs and engaging patients in physiotherapy. The second subtheme, *balancing technical and relational care*, illustrated how physiotherapists used body communication to provide a balanced approach that attended to the patient's physical *and* psychosocial needs. The physiotherapist's skill at balancing the technical and relational aspects of care led to a sense of collaboration between

patient and physiotherapist, empowering the patient to become more active in their recovery. Together, these themes highlighted the central role body communication played in patient-physiotherapist interactions and how body communication significantly influenced the therapeutic process. The next chapter explores several key ideas arising from these themes and interprets the relevance of these findings within the context of current literature and thinking.

Chapter Five: Discussion

This chapter discusses three key findings generated from the data and examines them in light of current theory and evidence. Both themes clearly showed that body communication mediated physiotherapy. That is, body communication could assist both the patient and physiotherapist to overcome challenging situations, or it could have potentiating effects, making conditions more positive (or negative). Three key aspects of physiotherapy mediated by body communication were: relationships, practices and the impact of time. Implications for clinical practice and research are considered in each discussion point and are summarised towards the end of the chapter. The final section presents the study's limitations, proposes future research and concludes.

Mediating Relationships

The therapeutic relationship has been defined as 'a trusting connection and rapport established between therapist and patient through collaboration, communication, therapist empathy, and mutual understanding and respect' (Cole and McLean, 2003, p. 44). In physiotherapy, the therapeutic relationship is central to successful treatment outcomes. For example, research demonstrates a positive association between stronger therapeutic relationships and patient satisfaction (Hush, Cameron, & Mackey, 2011), adherence to treatment (Schonberger, Humle, Zeeman, & Teasdale, 2006) and multiple clinical outcomes (Ferreira et al., 2013; Hall et al., 2010; Klaber Moffett & Richardson, 1997; Stenmar & Nordholm, 1994). From the perspective of physiotherapists working in private practice, developing a therapeutic relationship is crucial to recruit and keep a patient in their practice (Praestegaard, Gard, & Glasdam, 2013). Furthermore, with an increasing number of patients with chronic, complex and co-morbid musculoskeletal conditions now attending private

practices, the need for sustained rehabilitation and working closely with patients has increased (Reid & Larmer, 2007; Trede & Flowers, 2014).

However, a challenge facing physiotherapists in establishing the therapeutic relationship is that the very nature of their relationship with patients is imbalanced (Miciak et al., 2018b; Williams & Harrison, 1999). In a commentary exploring the power balance in physiotherapy interactions, Williams and Harrison (1999) identified that the imbalance within this relationship might come from the clinical environment, the patient's perception of the physiotherapist's professional status, and patients being reliant on the physiotherapist to provide care and services they need. Overcoming these barriers and establishing the therapeutic relationship is, therefore, crucial to ensure a good therapeutic outcome, a satisfied patient and consumer, repeat business and by extension, a stable income.

Transcending the clinical atmosphere

This study demonstrated that body communication mediated the power imbalance between physiotherapists and patients. This helped to develop more equitable interactions. Body communication was particularly salient when patients first attended physiotherapy, where their unfamiliarity with the clinical environment could be a barrier to building the therapeutic relationship. Harrison and Williams (2000) explained that patients attending physiotherapy for the first time are often confronted by a foreign clinical environment containing unfamiliar sights, sounds and smells and potentially intimidating clinical items. In private practice, this environment may include visible displays of exercise and physiotherapy equipment, use of images that privilege fit and able bodies, and open gym areas with other patients exercising (Praestegaard et al., 2013; Setchell, Watson, Jones, & Gard, 2015). Although familiar territory for the physiotherapist, patients might feel uncomfortable when first entering this environment (Setchell, Watson, Jones, and Gard, 2016) particularly if they

are injured or less able-bodied (Dahl-Michelsen, 2014; Setchell, 2017). It is also well established that the opening moments of a healthcare encounter contribute significantly to the outcome of the interaction and the relationship that develops between patient and therapist (Consedine, Standen, & Niven, 2016). According to Praestegaard and Gard (2011), the first encounter is when 'you either win or lose your patient' (p. 5) with some patients choosing to end their clinical relationship based on their initial impressions of the clinical environment (Lavik, Frøysa, Brattebø, McLeod, & Moltu, 2018). These studies stress the importance of physiotherapists being aware of the potential discomfort of patients and creating a positive therapeutic atmosphere from the very first meeting to facilitate the establishment of a therapeutic relationship.

The present study showed that body communication mediated the unfamiliarity of the foreign, clinical environment. To elaborate, in theme one, *atmospheres matter*, Simon through his actions almost instantly created a relaxed atmosphere which helped Kate to overcome her initial fears and concerns about the clinical environment and feel more comfortable within this environment. This intentional use of body communication was also described by Miciak et al. (2018a), whose study examined how physiotherapists established connections with patients in Canadian private practice settings. Participants in that study also described using body communication to connect with patients by making the patient feel more comfortable, such as when a physiotherapist described his way of greeting a patient: 'When you meet someone for the first time, typically you say hi. You offer a hand. You make eye contact. You might smile' (p. 6). This intentional way of communicating responds to the patient's needs of therapy, with patients emphasizing that getting to know the physiotherapist as an empathetic person from the very first meeting was vital to establishing the therapeutic relationship (Ekerholt & Bergland, 2004). Although my findings complement these studies, my research adds to this literature by identifying the almost immediate effect body

communication had on mediating the foreign, clinical environment. This knowledge is important for physiotherapists, particularly those working in private practice where time may be limited, and physiotherapists need to establish rapport with patients quickly.

Negotiating the 'dance' of therapy

This study showed that therapeutic touch was an important medium through which physiotherapists developed the therapeutic relationship. Numerous studies confirm the potential for touch to build the therapeutic relationship (Bjorbækmo & Mengshoel, 2016; Ekerholt & Bergland, 2006; Hiller et al., 2015; Roger et al., 2002; Rutberg et al., 2013). However, several authors note the importance of physiotherapists being aware of the risk of power imbalance during therapeutic touch (Ekerholt & Bergland, 2004; Eriksson et al., 2012; Hiller, 2017; Rutberg et al., 2013), highlighting the need for physiotherapists to use touch sensitively (Rutberg et al., 2013). The physiotherapists in the current study demonstrated awareness of the potential for power imbalance before initiating therapeutic touch. For example, Robert demonstrated his awareness of the power differential when he described his approach of moving slowly into the patient's personal space and positioning himself slightly offset rather than immediately above the patient. Robert based his approach on his sense of the patient's comfort level. These findings support several studies exploring physiotherapists' use of therapeutic touch in acute inpatient care and rehabilitation settings (Eriksson et al., 2012; Gyllensten et al., 2000; Helm et al., 1997; Roger et al., 2002) and private practice settings (Bjorbækmo & Mengshoel, 2016; Eriksson et al., 2012; Hiller et al., 2015; Rutberg et al., 2013), in which physiotherapists' perception of a patient's personal space and comfort was an important consideration before initiating touch.

During hands-on interventions, physiotherapists fine-tuned their therapeutic touch in response to the bodily reactions of patients. For example, Robert adjusted his touch by

making small changes to the pressure and movement of his hands in terms of direction, speed and range based on observing the patient's bodily tension and trouble with relaxing. This responsive touch resonates with social constructionist ideas, in particular, Anderson and Goolishian's (1992, p. 28) 'not-knowing' stance where the therapist does not dominate the patient with expert knowledge so much as he or she is led by and learns from the patient's own knowledge and experience of his or her own body and condition. Applying these findings to the current study, because the patient's body communication informed the physiotherapists' adjustments, therapy was co-created and negotiated through interaction with the patient: a coordinated 'dance' between patient and physiotherapist in the therapeutic relationship. Such a view depicts therapy as something that emerges from and is shaped by interaction: *doing with* the patient rather than *doing to* the patient. Body communication could, therefore, balance the power differential and help establish more equitable interactions by enabling physiotherapists to co-construct therapy with patients. This is congruent with one of the core components of person-centred care described as the co-creation of care between patients and their health professionals (Ekman et al., 2011).

Similar to this description of a sense of mutuality between patient and physiotherapist, other physiotherapy studies describe a form of partnership during therapeutic touch (Bjorbækmo & Mengshoel, 2016; Ekerholt & Bergland, 2006; Roger et al., 2002; Rutberg et al., 2013). For example, Bjorbækmo and Mengshoel's (2016) phenomenological study, which explored the significance and meaning of touch within a single treatment session in private practice in Norway, describes therapeutic touch as an essential medium through which responsive adjustments occur. During the hands-on intervention observed in the research, physiotherapists often adjusted their touch by changing the position or pressure of their hands. According to the authors, these responsive adjustments facilitated understanding between the patient and physiotherapist. Together with my research, these findings indicate

the critical role touch plays in developing the therapeutic relationship.

Touch is a crucial way in which physiotherapists demonstrate technical expertise. Several studies confirm that a physiotherapist's technical expertise is a vital element in establishing and maintaining an effective therapeutic relationship (Besley, Kayes, & McPherson, 2011; Ekerholt & Bergland, 2004; Hellem, Bruusgaard, & Bergland, 2012; Rutberg, Kostenius, & Öhrling, 2013). In the subtheme *managing time*, Robert used close positioning, precise touch and quick hand movements to swiftly diagnose Sharon's impairment with minimal verbal communication with Sharon, skilfully controlling the technical task and conveying efficiency, authority and expertise. The importance of technical expertise in helping to build the therapeutic relationship is similar to findings from both osteopathy and physiotherapy studies: patient trust in the therapist was related to how the therapist used touch to identify the painful location with little input from the patient (Lee-Treweek, 2002; Rutberg et al., 2013). For example, in an interview study exploring the patient's experience of physiotherapy for migraine, Rutberg et al (2013) quoted one participant explaining how the physiotherapist's skillful touch engendered their trust in the physiotherapist: '... it's quite amazing too, he [my physiotherapist] feels ... just by feeling, that there is the right spot … I could almost be unconscious and still be there, I totally trust him' (p 1617). Although these accounts convey a sense that treatment was an act done *to* the patient by the physiotherapist rather than something co-created and negotiated *with* the patient, *doing to* the patient may be an important part of the therapeutic process and is consistent with research showing that some patients' prefer clinicians to be the sole expert (Fadyl, McPherson, & Kayes, 2011; Slade et al., 2009). This suggests that physiotherapists need to adopt a flexible and responsive therapeutic touch that moves between *doing to* and *doing with* the patient in order to meet patients' diverse relational needs (Lawton, Conroy, Sage & Haddock, 2019).

Mediating the Impact of Time

Time, in particular how physiotherapists managed time, was closely entwined with body communication. This section first explores the importance of time within the context of private practices in New Zealand and the impact of time constraints on the communication between the patient and physiotherapist before discussing how body communication might be used to mediate time challenges.

Time restrictions are widely recognised as a barrier to optimal communication across many health care contexts (Thorne et al., 2010). For example, a survey of allied health professionals working in a variety of hospital settings in England, including 2,793 physiotherapists, showed that 60 percent felt that they did not have sufficient time to communicate well with patients (Jackson, Mannix, & Daly, 2001). In the subtheme *managing time*, Robert also recognized that time restrictions negatively influenced his communication with patients, viewing these constraints as unavoidable. Other physiotherapists working in private practice express similar concerns (Altamimi, 2015; Potter et al., 2003b; Praestegaard & Gard, 2011). For example, one physiotherapist working privately in Denmark said this about time pressures:

> I know this is bad for both the dialogue with the one patient and the treatment effect of the patient. But what can I do? I have to earn money. It is also a business, not just a beneficial charity (Praestegaard et al., 2013, p. 100).

In New Zealand, most physiotherapists working in private practice are paid as contractors based on how many patients they see daily (Reid & Larmer, 2007). As mentioned in the introduction in the first chapter, this funding structure provides a financial incentive to treat as many patients as possible in a short time (Glasgow, 2019). Thus, in the current private practice environment in New Zealand, physiotherapists may experience considerable

time pressures because they are trying to see more patients to ensure a sound profit. These considerations are likely to both challenge and impact on how physiotherapists communicate and engage patients in the therapeutic process (Praestegaard et al., 2013).

Patients are impacted by time constraints placed on physiotherapists. For example, an impression of a lack of time can be interpreted by patients as the physiotherapist's disinterest in them (Crepeau, 2016; Harrison & Williams, 2000; Potter et al., 2003b). Similarly, in the subtheme *managing time*, Sharon identified that she occasionally felt that the fast pace of therapy conveyed a message that Robert was focused on his own agenda. When patients perceive their physiotherapist rushing, it can also have a detrimental effect on patient satisfaction and whether they return for follow-up treatment (Crepeau, 2016; Miciak et al., 2018a). Communicating effectively within time constraints is congruent with the New Zealand physiotherapy practice thresholds (outlined in Chapter One), which state that physiotherapists should use appropriate strategies to manage their workload and resources to provide safe and effective physiotherapy (Physiotherapy Board of Australia & Physiotherapy Board of New Zealand, 2015).

A physiotherapist in the current study demonstrated several communicative strategies that could be used to mediate the impact of time pressures. For example, in theme one, *atmospheres matter*, *how* the physiotherapist managed time as opposed to the length of time in the consultation was crucial in communicating that they had time for the patient. Through body communication, the physiotherapist created the *impression* of time. Despite the clear importance of communicating effectively within time constraints, few researchers have attended to time explicitly, thereby providing little or no practical information for clinicians who are looking for guidance on how to communicate effectively within time constraints. Miciak et al. (2018b) found that patients attending private practices in America distinguished between ‘busy’ and ‘rushed’ physiotherapists based on whether or not they perceived that the

physiotherapist was present in their body communication. In other words, a physiotherapist could be busy but could still convey having time for patients by communicating that he or she was present. Similarly, in a study comparing the communication of expert and novice clinicians within private practices in America, Jensen, Shepard, Gwyer and Hack (1992) observed that expert physiotherapists with between 13 and 23 years' experience often supervised multiple patients simultaneously yet were still able to communicate their individualised attention to patients. This mirrors observations of a physiotherapist's nonverbal behaviour in the current study: Simon conveyed his presence and awareness to the patient through quickly gaining eye contact while simultaneously performing other tasks. The findings in my study are consistent with but also extend beyond the limited literature on communication in time-restricted contexts by providing explicit details of *how* physiotherapists communicated having time for patients despite time pressures (see managing time to create a slow tempo of care on page 78), which may support clinicians to reflect on their actions and identify strategies for conveying a sense of time.

In the current research, when physiotherapists remained attentive and continuously adjusted their therapeutic approach in response to patient body communication, treatment became a form of physical dialogue between the patient and physiotherapist. A physical dialogue during treatment is consistent with the findings of several phenomenological studies of psychiatric physiotherapy in Norway, where physiotherapists used the patient's breathing during massage and exercise to guide the intensity of therapy (Ekerholt & Bergland, 2004, 2006, 2008; Øien et al., 2011). In the current study, this physical dialogue enabled the physiotherapist to provide time efficient care that did not rely on verbal communication. The ability to communicate without relying on verbal communication is vital for private practice physiotherapists because therapy is fast paced and techniques and methods often change multiple times during a treatment session (Poulis, 2007). To stop and obtain verbal consent

for every change that may occur during therapy could increase time pressure on physiotherapists (Delany, Edwards, Jensen, & Skinner, 2010). In the current study, because body communication was not a separate part of communication and was seamlessly integrated into therapy, it enabled physiotherapists to continue treatment without interruptions and thereby ensured time efficiency. This finding is consistent with the process of embodied consent whereby physiotherapists use the patient's bodily responses to an intervention as a sign of on-going treatment consent (Fenety et al., 2009) and supports the thought expressed by Fenety et al. (2009) that body communication is critical in time restricted encounters where time for verbal communication may be compressed.

Mediating Practices

Physiotherapy practice involves technical and relational care (Mudge et al., 2014). Technical care includes objective, physical assessments, hands-on techniques, movement demonstrations and exercise prescription (Barradell, Peseta, & Barrie, 2018); it is thus crucial to clinical reasoning and contributes to a successful clinical outcome (Crepeau, 2016). Consequently, much of physiotherapy practice essentially involves technical care (Mudge et al., 2014). Relational care includes attending to the patient's broader social, personal and emotional needs (Dahl-Michelsen, 2015). A physiotherapist's ability to carry out technical care in a way that integrates relational care is a crucial skill towards making technical care responsive and relevant to the needs and values of the individual patient (Sim, Smith, & French, 2004). Despite the clear importance of an integrated approach that combines technical and relational care, technical care alone dominates physiotherapy practice (Nicholls & Holmes, 2012). This section discusses the role of body communication in mediating physiotherapy practices and how it is essential in supporting physiotherapists to integrate technical and relational care in their practices.

Although technical care can often be routine and impersonal, this study shows that it could also include dynamic, flexible and responsive aspects (i.e. relational care). While technical care was always a common element in the practices of physiotherapists, body communication had a subtle mediating effect. For example, in the subtheme, balancing technical and relational care on page 97, I described how technical care was strongly conveyed through Simon's precise, efficient and confident physical instruction, which communicated to Kate the expected performance and 'correct' way of moving. However, relational care was subtly present in Simon's soft voice and warm facial expression, which complemented his technical instructions and communicated a sense of caring and acknowledgement that moving the correct way was difficult. Thus, body communication mediated what could otherwise be routine and impersonal technical work, making it more responsive to the person and the context. These findings concur with 'expert' communication in physiotherapy, described as communication that is dynamic, sensitive and responsive to the patient's physical and psychosocial needs, rather than focusing on the physical aspects in isolation (Bright, Kayes, McPherson, & Worrall, 2018; Jensen et al., 1990). My findings are also consistent with available literature confirming that both technical and relational care shape patients' views of what constitutes a 'good' physiotherapist or 'good' physiotherapy practice (Ekerholt & Bergland, 2004; Potter et al., 2003b) and that some patients may consider relational care more important when evaluating successful treatment outcomes (Cooper et al., 2008; Kidd, Bond, & Bell, 2011). Critically, these studies indicate that optimal therapeutic outcomes might not occur without relational care, suggesting that physiotherapists need to integrate and flexibly apply both technical and relational care in their practices.

Somewhat similar to my findings that physiotherapists carried out both technical and relational care, researchers have noted physiotherapists utilising these aspects in their

practices (Ekerholt & Bergland, 2004; Hiller et al., 2015; Thornquist, 1992). For example, in a study of patient-physiotherapist interactions in Australian private practices, Hiller et al. (2015) observed that although physiotherapists' verbal communication was often technically-oriented, it was frequently tempered by body communication including touch, for example, a pat on the back or a rub on the shoulder to convey interest, care and attention. Hiller et al.'s (2015) findings concur with Thornquist's (1992) contention that physiotherapists adopt two different perspectives when interacting with patients: biomedical and holistic. Thornquist (1992) observed that although physiotherapists often ignored a patient's body communication in the professional context, choosing to prioritise their own technical, profession-specific knowledge over the patient's knowledge, they nevertheless, used body communication to convey care for the patient as a person in their general interaction. While these two studies show that physiotherapy practice includes technical and relational care, the descriptions suggest that physiotherapists carried out each separately. This unintegrated approach may reflect the dominant biomedical model of physiotherapy practice (Mudge et al., 2014; Nicholls & Gibson, 2010), which maintains a distinction between the technical and the relational skills of the physiotherapist (Dahl-Michelsen, 2015; Nicholls & Holmes, 2012; Trede & Flowers, 2014).

In contrast to the literature described above, my study demonstrated that physiotherapists integrated technical and relational care. This integrated approach was evident in the example provided above, where Simon's instruction delivered crucial technical information to Kate as well as communicating care and empathy. The differences between my findings and the current literature may reflect the dominant practice philosophy demonstrated more clearly by Simon which took a holistic approach, considering the broader psychosocial aspects of physiotherapy care. The idea that a broader view of health may be a prerequisite to integrating technical and relational care is supported by interviews with

'holistic' physiotherapists working in Scandinavia (Gyllensten et al., 1999; Stenmar & Nordholm, 1994). For example, Gyllensten et al. (1999) found that holistic physiotherapists in psychiatric care felt free to act intuitively in response to the actual situation and to patients as a whole rather than being restricted by a focus on treatment techniques. It may also reflect the experience of the physiotherapist. Greenfield et al. (2010) found that although physiotherapists in their first year of clinical practice recognised the need to include relational care in their technical practices, they struggled to carry out treatments in a way that expressed empathy and responsiveness to the patients' needs. This suggests that physiotherapists may lack the knowledge of how to integrate technical and relational care and indicates a need for this knowledge and related skills to be included in professional undergraduate training.

Physiotherapists are in a unique position to integrate technical and relational care. Technical care provides physiotherapists with the permission they need to be in close physical proximity with the patient (Nicholls & Holmes, 2012), which is a component of sensitive and responsive relational care. However, as mentioned above, current research suggests that physiotherapists lack the knowledge and skills to integrate technical and relational care. The literature on expert practice suggests that skilled physiotherapists can perform technical care in a way that also conveys relational care, using touch to communicate and provide therapeutic intervention (Jensen, Gwyer, Shepard, & Hack, 2000). My study extends current knowledge of this integration by providing detailed exemplars of *how* physiotherapists integrated technical care and relational care. The difficulty in making the details of this process explicit is compounded by the fact that many physiotherapist's actions are intuitive and are therefore hard to communicate (Ajjawi & Higgs, 2012). In my study, the use of observation methods, combined with in-depth VSR interviews, helped physiotherapists to be more aware of and reflect on their practices. This demonstrates how using different data

collection methods can provide new insights into practice that will support clinicians to integrate these two aspects of care.

As another way to help make this tacit, implicit knowledge more accessible to clinicians, here, I draw on the idea of a 'bridge' as a metaphor to illustrate how body communication could 'connect' technical and relational care. By way of illustration, during the subjective interview, *how* Simon listened to Kate's story with a steady and softly orientated gaze, comfortably leaning forward in his chair and nodding without interrupting not only allowed him to gather crucial clinical information (technical care) but also provided him with the opportunity to get to know Kate as a person (relational care). This metaphor offers a simple way for physiotherapists and in fact, any health professional to use body communication in a more intentional way to support the integration of technical and relational care in clinical practice. My research also demonstrated that the physical environment could influence the integration of technical and relational care. For instance, in theme one, *creating a professional space*, as Robert carried out the subjective interview, his attention to the computer acted as a physical and metaphorical barrier to gaining a more holistic understanding of Sharon. Clinicians should, therefore, be mindful of the physical environment, including how they arrange and use particular objects such as tables, chairs and computers when performing technical care as these objects can either facilitate or inhibit the ability to integrate technical and relational care.

Implications for Practice and Education

This research contributes to the literature on the integral role of body communication in physiotherapy practice and provides concrete indications of how physiotherapists may be able to implement a more person-centred approach to communication. Its findings should impact practice, leading to improved quality of care.

While researchers have highlighted the role of body communication in developing therapeutic relationships (Gard, 2005; Øien, Råheim, Iversen, & Steihaug, 2009; Skjaerven, Kristoffersen, & Gard, 2008; Thornquist, 1991), few have identified how body communication achieves these relationships. The current research not only demonstrated that body communication supports therapeutic relationships, but it also showed *how* body communication supports these relationships: it mediates the power balance between physiotherapists and patients. These findings suggest that physiotherapists may need to adopt a flexible approach to managing the power balance, moving between doing therapy *to* the patient and doing therapy *with* the patient, to meet the patient's diverse and changing relationship needs. A flexible approach may allow physiotherapists to form more effective and enduring therapeutic relationships with their patients.

In addition, this study illustrated the role that body communication plays in countering the negative impacts of time pressure. Studies highlight the detrimental effect of time pressure on the effectiveness of clinical encounters (Caldeira & Timmins, 2015; Dugdale et al., 1999; Thorne, Hislop, Stajduhar, & Oglov, 2009). The study's findings may have implications for physiotherapists and owners of private practices as creating the impression of time may allow clinicians to maximize short interactions with a sense of presence and ensure that patients do not feel rushed. This is an essential skill for physiotherapists as it ensures patient satisfaction, repeat business and more stable revenue for the clinic and, by extension, the therapist. Body communication also enabled physiotherapists to use time efficiently. For example, if they were able to adjust their therapeutic approach without stopping, physiotherapists maintained the pace of therapy, allowing them to keep shorter appointments, increase patient numbers/day and by association income, while still providing optimal patient care. Physiotherapists often struggle to meet their employers' expectation to make money whilst balancing optimal patient care, contributing to some

physiotherapists leaving the profession (Davies, Edgar, & Debenham, 2016). Being able to mediate the impacts of time pressure may increase physiotherapist's satisfaction with their work and professional longevity.

In this study, body communication also helped physiotherapists integrate technical *and* relational care into their practices, enabling them to transform potentially routine and impersonal professional work into dynamic, flexible and responsive care. These findings may have significant implications for physiotherapists. There has been a call for physiotherapists to be 'able to use their skills for care, not only cure' (Nicholls & Holmes, 2012, p 462). This corresponds with a growing concern about the profession's capacity to respond to the needs and preferences of modern healthcare consumers, who have been moving away from traditional practices and report wanting something from *more* than just technically competent clinicians (Nicholls, 2017). In the current competitive health care market, patients have more opportunities to explore alternatives to orthodox physiotherapy practice (Gibson, Nicholls, Synne Groven, & Setchell, 2018). Using body communication to complete technical work in a way that conveys relational care may help physiotherapists address the changing needs and preferences of modern healthcare consumers, encouraging patients to continue to attend physiotherapy and, by extension, ensuring the profession remains a valued and viable healthcare provider in a competitive healthcare market.

Body communication is a crucial part of physiotherapy practice and therefore teachers of communication in both undergraduate and postgraduate physiotherapy education need to consider training physiotherapists in sensitive and responsive body communication. In the current study, the use of VSR interviews allowed physiotherapists to observe body communication and helped them become more aware of and critically reflect on the interactive behaviours that were used during patient encounters. Therefore, using VSR and reflection on a video recorded physiotherapist-patient interaction may be one way to teach

body communication. Furthermore, physiotherapists should reflect on and self-monitor their body communication, the information transmitted by their bodies, and the effects of this communication on the patient (Hall, Murphy, & Mast, 2006). This suggestion is in line with research recommending that clinicians should reflect on their communication and the way they use therapeutic touch (Gyllensten et al., 1999; Potter, Gordon, & Hamer, 2003a; Roberts & Bucksey, 2007). Critical self-reflection and awareness of body communication would be a valuable strategy for physiotherapists to facilitate more intentional use of body communication in practice.

Limitations of the Research

While this research significantly contributes to the literature on body communication in physiotherapy private practice, some limitations must be acknowledged. First, this study closely examined two physiotherapists, each of whom interacted with only one patient. Each physiotherapist had a different style. Therefore, the findings may be read as if two dichotomies – one of an engaged, relational clinician and one of a less engaged, impairment-focused clinician – were presented. This was not the target argument, but with only two clinicians working with one patient, the perception of this dichotomy was a risk.

Additionally, my communicative practice was more aligned with the interaction of one of the physiotherapists. Therefore, it was difficult not to foreground this and promote the communicative practice of one physiotherapist over the other. This increased the risk of presenting two dichotomies. However, the possibility of this bias was made explicit during a pre-assumptions interview and discussed with my supervisors to reduce its potential influence on the data collection and analysis processes. Keeping a research journal throughout the research process also encouraged my awareness of any pre-assumptions and prevented their imposition on the participants.

Furthermore, the research lacked representation from female physiotherapists and male patients despite attempts to recruit a mix of male and female physiotherapists and patients. Body communication has been shown to differ as a function of the gender of the clinician (Hall et al., 2006). For example, female physiotherapists engage in more affiliative body communication than male physiotherapists and male physiotherapists' body communication tends to be more directly related to task-orientated activities (Gallois et al., 1979). Although gender was not a focus in my study, gender may have influenced the physiotherapists' behaviours during the interaction and therefore, the patients' and vice versa. A larger sample with a different mix of patients and physiotherapists may have generated different data and themes and is worthy of future exploration.

The demands of my full-time work also influenced the data sought from the settings to a certain extent. For example, I was able to observe and video-record all six of the scheduled appointments between Simon and Kate, but only three of the scheduled four between Robert and Sharon. Thus, I may not have been able to fully capture how the relationship between Robert and Sharon evolved and how their body communication may have changed throughout therapy. Furthermore, the participants in my study originated from a geographically constricted area, which I considered a limitation to the transferability of these results to patients participating in different settings and particularly patients and physiotherapists from different cultures who may have very different body communication behaviours and be used to different patient-physiotherapist relationships (Silverman and Kinnersley, 2010).

The data analysis approach may have also influenced the findings. For example, as I struggled to make sense of the data and develop overarching themes, it became apparent that the use of PPA, which looks at communication from a micro-level perspective, was a barrier to seeing broad themes across the data set. During the data analysis, collaborative discussions

with my supervisors and a researcher experienced in the use of thematic analysis helped me to step back from the data and adopt a broader view. However, I recognise that a different approach to data analysis may have yielded different themes. Lastly, I am aware that a social constructionist perspective is only one perspective from which to make an interpretation and other interpretations are always possible. I recognise that viewing the data through a different lens may yield different interpretations, again worthy of future research consideration.

Future Research

During the development and refinement of findings, several questions arose which may provide directions for future research. For example, while my research described how physiotherapists were able to make instant and continuous adjustments to their approach by reading patient body communication, my study did not capture how physiotherapists learn to read and interpret body communication. In the literature, physiotherapists describe this ability as an intuitive or perceptive skill that evolves with training and clinical experience (Gardner & Williams, 2015; Helm et al., 1997; Hiller, 2017; Roger et al., 2002). However, these studies provide little guidance for students or novice clinicians who are looking to read and interpret body communication when first starting clinical practice. How do we teach students to read and interpret body communication? Moreover, how can a physiotherapist's skill at reading body communication be assessed? If this skill can be assessed, what is the best way to do so? This study also suggests that body communication can be an intentional form of communication that physiotherapists can use to create particular effects, for example, mediating a clinical environment or mediating time pressures. What needs to be present in a physiotherapist's thinking for them to use body communication intentionally? My study suggested a holistic approach that considered the broader personal, social and emotional aspects of physiotherapy care might be a prerequisite to using body communication intentionally, but much more work is needed to flesh out the specific elements.

To deepen understandings of the role of body communication, how this form of communication evolves could be investigated through a longitudinal multiple case study design with cross-case synthesis. Body communication could be compared within and over multiple treatment courses consisting of physiotherapists working with different patients to explore how they manage and adjust their ways of working. Given the crucial role of body communication in facilitating the therapeutic relationship, how this communicative medium might support clinicians to establish and maintain more enduring therapeutic relationships could also be explored in patients with more long-term needs.

Conclusion

This master's research started with a desire to learn more about body communication to improve my ability to interact with patients. To answer this question, I needed to gather in-depth and nuanced accounts of body communication during patient-physiotherapist interactions in a New Zealand private practice setting. A review of the literature (Chapter Two) and an empirical qualitative study involving patient-physiotherapist interactions in private practice (Chapter Four) concluded that body communication played a crucial role in physiotherapy and significantly shaped practice. Specifically, my findings concluded that through body communication, physiotherapists created the clinical atmosphere that shaped the relationship between themselves and their patients. Physiotherapists can draw on these findings to develop their awareness about the possible impact of body communication on their interaction and relationship with patients. Body communication also enabled physiotherapists to tailor what they did and how they worked to fit the patient's unique needs and preferences. This nuanced, responsive care was necessary for fully engaging patients in physiotherapy, building the therapeutic relationship, and ensuring consumer satisfaction. These findings clearly show that sensitive and responsive body communication can support

physiotherapists to implement a more person-centred approach to care and enhance the quality of treatment.

Furthermore, both themes demonstrated that body communication mediated physiotherapy. By increasing a physiotherapist's knowledge and awareness of body communication, they may be able to use body communication intentionally to create particular effects, for example, mediating a clinical environment, or mediating time-pressures. The ability to mediate physiotherapy may enable clinicians to manage the complexities and demands of professional practice more effectively and improve physiotherapists' own satisfaction with the care they provide.

References

Ajjawi, R., & Higgs, J. (2012). Core components of communication of clinical reasoning: A qualitative study with experienced Australian physiotherapists. *Advances in Health Sciences Education, 17*(1), 107-119. doi:10.1007/s10459-011-9302-7

Altamimi, A. (2015). *The nature of the female patient–physiotherapist relationship in Saudi Arabian musculoskeletal outpatient settings: a constructivist grounded theory* (Doctoral dissertation). University of Brighton, England. Retreived from https://research.brighton.ac.uk/en/studentTheses

Anderson, H., & Goolishian, H. (1992). The client is the expert: A not-knowing approach to therapy. In S. McNamee, & K. Gergen (Eds.), *Therapy as social construction,* (pp. 25-39). London, England: Sage.

Anderson, L., & Bowyer, L. (2012). Engaging the professional community: rewriting a code of ethics for NZ physiotherapists. *Physical Therapy Reviews, 17*(3), 190-196.

Arai, L., Britten, N., Popay, J., Roberts, H., Petticrew, M., Rodgers, M., & Sowden, A. (2007). Testing methodological developments in the conduct of narrative synthesis: a demonstration review of research on the implementation of smoke alarm interventions. *Evidence & Policy: A Journal of Research, Debate and Practice, 3*(3), 361-383.

Atkinson, J. M., & Heritage, J. (1984). *Structures of social action*. Cambridge: University Press.

Barradell, S., Peseta, T., & Barrie, S. (2018). ‘There’s so much to it’: the ways physiotherapy students and recent graduates experience practice. *Advances in Health Sciences Education*, *23*(2), 1-20.

Bazeley, P. (2009). Analysing qualitative data: More than 'identifying themes'. *Malaysian Journal of Qualitative Research, 2*(2), 6-22.

Bensing, J. M., Visser, A., & Saan, H. (2001). Patient education in The Netherlands. *Patient Education and Counseling, 44*(1), 15-22. doi:10.1016/s0738-3991(01)00097-0

Bergbom, S., Boersma, K., Overmeer, T., & Linton, S. J. (2011). Relationship among pain catastrophizing, depressed mood, and outcomes across physical therapy treatments. *Physical Therapy, 91*(5), 754-764. doi: https://dx.doi.org/10.2522/ptj.20100136

Berger, P. L., & Luckmann, T. (1967). *The social construction of reality: A treatise in the sociology of knowledge*. New York: Anchor Books.

Besley, J., Kayes, N. M., & McPherson, K. M. (2011). Assessing therapeutic relationships in physiotherapy: literature review. *New Zealand Journal of Physiotherapy, 39*(2), 81-91.

Bjorbækmo, W. S., & Mengshoel, A. M. (2016). "A touch of physiotherapy" — the significance and meaning of touch in the practice of physiotherapy. *Physiotherapy Theory & Practice, 32*(1), 10-19. doi:10.3109/09593985.2015.1071449

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.

Bright, F. A. S., Cummins, C., Waterworth, K., Gibson, B. E., & Larmer, P. (2019). Physiotherapy students' conceptualisations of clinical communication: A call to revisit communication in physiotherapy education. *The Open Physio Journal*, 1-10.

Bright, F. A. S., Kayes, N. M., McPherson, K. M., & Worrall, L. E. (2018). Engaging people experiencing communication disability in stroke rehabilitation: a qualitative study. *International Journal of Language & Communication Disorders, 53*(5), 981-994.

Bright, F. A. S., McCann, C. M., & Kayes, N. M. (2019). Recalibrating hope: A longitudinal study of the experiences of people with aphasia after stroke. *Scandinavian Journal of Caring Sciences*. doi.org/10.1111/scs.12745

Brinkmann, S., & Kvale, S. (2015). *Interviews: Learning the craft of qualitative research interviewing.* Thousand Oaks California: Sage Publications, Inc.

Buhl, I., & Pallesen, H. (2015). Early rehabilitation of patients with severe acquired brain injury: Strategies to promote participation. *Scandinavian Journal of Occupational Therapy*, *22*(3), 181-195.

Caldeira, S., & Timmins, F. (2015). Time as presence and opportunity: the key to spiritual care in contemporary nursing practice. *Journal of Clinical Nursing*. 24, 2355–2356. doi: 10.1111/jocn.12909

Carpenter, C., & Suto, M. (2008). *Qualitative research for occupational and physical therapists: A practical guide*. Oxford UK: Wiley.

Chowdhury, A., & Bjorbækmo, W. S. (2017). Clinical reasoning- embodied meaning-making in physiotherapy. *Physiotherapy Theory and Practice*. *(33)*7, 550-559. doi.org/10.1080/09593985.2017.1323360

Cole, M. B., & McLean, V. (2003). Therapeutic relationships re-defined. *Occupational Therapy in Mental Health*, *19*(2), 33-56.

Consedine, S., Standen, C., & Niven, E. (2016). Knowing hands converse with an expressive body - An experience of osteopathic touch. *International Journal of Osteopathic Medicine, 19,* 3-12. doi:10.1016/j.ijosm.2015.06.002

Cooper, K., Smith, B. H., & Hancock, E. (2008). Patient-centredness in physiotherapy from the perspective of the chronic low back pain patient. *Physiotherapy, 94*(3), 244-252. doi:10.1016/j.physio.2007.10.006

Corlett, S., & Mavin, S. (2017). Reflexivity and researcher positionality. In C. Cassell, A. Cunliffe, G. Grandy (Eds.), *The SAGE handbook of qualitative business and management research methods*, Thousand Oaks, California: Sage.

Corrigan, J. M. (2005). Crossing the quality chasm. In P. Reid, W. Compton, J. Grossman, & G. Fanjiang, (Eds.), *Building a Better Delivery System: A New Engineering/Health Care Partnership.* Washington, DC: The National Academic Press.

Crepeau, E. B. (2016). "I need someone to keep an eye on me:" the power of attention in patient-practitioner interactions. *Disability and Rehabilitation, 38*(24), 2419-2427. doi:10.3109/09638288.2015.1129443

Critical Skills Appraisal Programme. (2010). *Ten questions to help you make sense of qualitative research.* Retreived 10 June 2017, from http://www.casp-uk.net/wp-

Dahl-Michelsen, T. (2014). Sportiness and masculinities among female and male physiotherapy students. *Physiotherapy Theory and Practice, 30*(5), 329-337.

Dahl-Michelsen, T. (2015). Curing and caring competences in the skills training of physiotherapy students. *Physiotherapy Theory and Practice, 31*(1), 8-16.

Davidson, B., Howe, T., Worrall, L., Hickson, L., & Togher, L. (2008). Social participation for older people with aphasia: The impact of communication disability on friendships. *Topics in Stroke Rehabilitation, 15*(4), 325-340.

Davies, J., Edgar, S., & Debenham, J. (2016). A qualitative exploration of the factors influencing the job satisfaction and career development of physiotherapists in private practice. *Manual Therapy, 25*, 56-61.

Deber, R., Kraetschmer, N., Urowitz, S., & Sharpe, N. (2005). Patient, consumer, client, or customer: what do people want to be called? *Health expectations: an international journal of public participation in health care and health policy, 8*(4), 345-351.

Delany, C. M. (2007). In private practice, informed consent is interpreted as providing explanations rather than offering choices: a qualitative study. *Australian Journal of Physiotherapy, 53*(3), 171-177.

Delany, C. M., Edwards, I., Jensen, G. M., & Skinner, E. (2010). Closing the gap between ethics knowledge and practice through active engagement: An applied model of physical therapy ethics [Review]. *Physical Therapy, 90*(7), 1068-1078. doi:10.2522/ptj.20090379

Dugdale, D. C., Epstein, R., & Pantilat, S. Z. (1999). Time and the patient–physician relationship. *Journal of General Internal Medicine, 14*(Suppl 1), S34.

Gibson, B.E., Nicholls, D.A., Synne Groven, K., & Setchell, J. (2018). *Manipulating practices: A critical physiotherapy reader*: Cappelen Damm Akademisk: Nordic Open Access Scholarly Publishing.

Edwards, I., Jones, M., Carr, J., Braunack-Mayer, A., & Jensen, G. M. (2004). Clinical reasoning strategies in physical therapy. *Physical Therapy, 84*(4), 312-330.

Ek, K. M. (1991). *Physical therapy as communication: Microanalysis of treatment situations.* (Doctoral Dissertation). Michigan State University, Michigan, United States of America. Retreived from https://ci.nii.ac.jp/ncid/BB23167232?l=en

Ekerholt, K. (2011). Awareness of breathing as a way to enhance the sense of coherence: Patients experiences in psychomotor physiotherapy. *Body, Movement and Dance in Psychotherapy, 6*(2), 103-115. doi:10.1080/17432979.2011.568762

Ekerholt, K., & Bergland, A. (2004). The first encounter with Norwegian psychomotor physiotherapy: patients' experiences, a basis for knowledge. *Scandinavian Journal of Public Health, 32*(6), 403-410.

Ekerholt, K., & Bergland, A. (2006). Massage as interaction and a source of information. *Advances in Physiotherapy, 8*(3), 137-144. doi:10.1080/14038190600836809

Ekerholt, K., & Bergland, A. (2008). Breathing: A sign of life and a unique area for reflection and action. *Physical Therapy, 88*(7), 832-840. doi:10.2522/ptj.20070316

Ekman, I., Swedberg, K., Taft, C., Lindseth, A., Norberg, A., Brink, E., . . . Kjellgren, K. (2011). Person-centered care—Ready for prime time. *European Journal of Cardiovascular Nursing*, *10*(4), 248-251.

Engelsrud, G., Nordtug, B., & Øien, I. (2018). Being present with the patient—A critical investigation of bodily sensitivity and presence in the field of physiotherapy. *Physiotherapy Theory and Practice. 35*(10), 908-918. doi.org/10.1080/09593985.2018.1460431

Epstein, R. M., Fiscella, K., Lesser, C. S., & Stange, K. C. (2010). Why the nation needs a policy push on patient-centered health care. *Health affairs*, *29*(8), 1489-1495.

Epstein, R. M., Franks, P., Fiscella, K., Shields, C. G., Meldrum, S. C., Kravitz, R. L., & Duberstein, P. R. (2005). Measuring patient-centered communication in patient–physician consultations: theoretical and practical issues. *Social Science & Medicine, 61*(7), 1516-1528.

Epstein, R. M., & Street, R. L. (2011). The values and value of patient-centered care: *Annals Family Med. 9*(1), 100-103. doi: 10.1370/afm.1239

Eriksson, L., Ekenberg, L., & Melander-Wikman, A. (2012). The concept of palpation of the shoulder - A basic element of physiotherapy practice: A focus group study with

physiotherapists. *Advances in Physiotherapy, 14*(4), 183-193. doi:10.3109/14038196.2012.738244

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics, 5*(1), 1-4.

Fadyl, J. K., McPherson, K. M., & Kayes, N. M. (2011). Perspectives on quality of care for people who experience disability. *BMJ quality & safety, 20*(1), 87-95.

Fenety, A., Harman, K., Hoens, A., & Bassett, R. (2009). Informed consent practices of physiotherapists in the treatment of low back pain. *Manual Therapy, 14*(6), 654-660. doi:10.1016/j.math.2009.02.007

Ferreira, P. H., Ferreira, M. L., Maher, C. G., Refshauge, K. M., Latimer, J., & Adams, R. D. (2013). The therapeutic alliance between clinicians and patients predicts outcome in chronic low back pain. *Physical Therapy, 93*(4), 470-478. doi:10.2522/ptj.20120137

Finlay, L. (2003). The reflexive journey: mapping multiple routes. In L. Finlay, & B. Gough, (Eds.), *Reflexivity: A practical guide for researchers in health and social sciences* (pp. 3-20.). Oxford, United Kingdom: Blackwell Science Ltd.

Gallois, C., Bent, A., Best, M., Dwyer, J., Fitch, S., Jack, M., & Kalman, R. (1979). Non-verbal behaviour in same-sex and mixed-sex physiotherapist-patient interactions(1.). *The Australian Journal Of Physiotherapy, 25*(1), 5-9. doi:10.1016/S0004-9514(14)61221-6

Gard, G. (2005). Body awareness therapy for patients with fibromyalgia and chronic pain. *Disability and Rehabilitation, 27*(12), 725-728. doi:10.1080/09638280400009071

Gard, G., Gyllensten, A. L., Salford, E., & Ekdahl, C. (2000). Physical therapists' emotional expressions in interviews about factors important for interaction with patients. *Physiotherapy, 86*(5), 229-240.

Gardner, J., & Williams, C. (2015). Corporal diagnostic work and diagnostic spaces: clinicians' use of space and bodies during diagnosis. *Sociology of Health & Illness, 37*(5), 765-781.

Gass, S. M., & Mackey, A. (2000). *Stimulated recall methodology in second language research*. London, United Kingdom: Routledge.

Gergen, K. J. (1985). The social constructionist movement in modern psychology. *American Psychologist, 40*(3), 266-270.

Gergen, K. J. (1999). *An invitation to social construction*. London, United Kingdom: Sage.

Gergen, K. J. (2006). *Therapeutic realities: Collaboration, oppression, and relational flow.* Lima, OH, United States: CSS Publishing Company.

Glasgow, K. (2019). *Re-negotiating the Boundaries: A Grounded Theory Study*. (Masters thesis). AUT University, Auckland, New Zealand. Retrieved from http://156.62.60.45/bitstream/handle/10292/12225/GlasgowK.pdf?sequence=3&isAllowed=y

Greenfield, B., Keough, E., Lynn, S., Little, D., & Portela, C. (2010). The meaning of caring from the perspectives of patients undergoing physical therapy. *Journal of Allied Health, 39*(2), e43-47.

Grzybowski, S. C., Stewart, M. A., & Weston, W. W. (1992). Nonverbal communication and the therapeutic relationship: Leading to a better understanding of healing. *Canadian Family Physician, 38*, 1994.

Gyllensten, A. L., Gard, G., Hansson, L., & Ekdahl, C. (2000). Interaction Between Patient and Physiotherapist in Psychiatric Care – the Physiotherapist's Perspective. *Advances in Physiotherapy, 2*(4), 157-167.

Gyllensten, A. L., Gard, G., Salford, E., & Ekdahl, C. (1999). Interaction between patient and physiotherapist: a qualitative study reflecting the physiotherapist's perspective. *Physiotherapy research international: the journal for researchers and clinicians in physical therapy, 4*(2), 89-109.

Ha, J. F., & Longnecker, N. (2010). Doctor-patient communication: a review. *Ochsner Journal, 10*(1), 38-43.

Hall, A. M., Ferreira, P. H., Maher, C. G., Latimer, J., & Ferreira, M. L. (2010). The influence of the therapist-patient relationship on treatment outcome in physical rehabilitation: A systematic review. *Physical Therapy, 90*(8), 1099-1110. doi:10.2522/ptj.20090245

Hall, J. A., Murphy, N. A., & Mast, M. S. (2006). Recall of nonverbal cues: Exploring a new definition of interpersonal sensitivity. *Journal of Nonverbal Behavior, 30*(4), 141-155.

Hargreaves, S. (1982). The relevance of non-verbal skills in physiotherapy. *The Australian Journal Of Physiotherapy, 28*(4), 19-22. doi:10.1016/S0004-9514(14)60774-1

Harman, K., Bassett, R., Fenety, A., & Hoens, A. M. (2011). Client education: Communicative interaction between physiotherapists and clients with subacute low back pain in private practice. *Physiotherapy Canada, 63*(2), 212-223. doi:10.3138/ptc.2009-52P

Harrison, K., & Williams, S. (2000). Exploring the power balance in physiotherapy [Article]. *International Journal of Therapy and Rehabilitation, 7*(8), 355-361. doi:10.12968/bjtr.2000.7.8.13862

Heaney, C. A., Green, A. J., Rostron, C. L., & Walker, N. C. (2012). A qualitative and quantitative investigation of the psychology content of UK physiotherapy education programs. *Journal of Physical Therapy Education, 26*(3), 48-56.

Heath, C., Hindmarsh, J., & Luff, P. (2010). *Video in qualitative research*. Chippeham, Wiltshire, England: Sage.

Hellem, E., Bruusgaard, K. A., & Bergland, A. (2012). Exercise maintenance: COPD patients' perception and perspectives on elements of success in sustaining long-term exercise. *Physiotherapy Theory & Practice, 28*(3), 206-220. doi:https://dx.doi.org/10.3109/09593985.2011.587502

Helm, J. S., Kinfu, D., Kline, D., & Zappile, M. (1997). Acquisition of a touching style and the clinician's use of touch in physical therapy. *Journal of Physical Therapy Education, 11*(1), 17-25.

Herbert, R., Jamtvedt, G., Hagen, K. B., Mead, J., & Chalmers, I. (2011). *Practical Evidence-Based Physiotherapy* (2nd ed.). London, United Kingdom: Elsevier Health Sciences.

Hiller, A. (2017). Toward relationship-centred care: patient-physiotherapist interaction in private practice (Doctoral Dissertation). The University Of Melbourne, Melbourne, Australia. Retreived from http://hdl.handle.net/11343/129510

Hiller, A., & Delany, C. M. (2018). Communication in physiotherapy: challenging established theoretical approaches. In B. E. Gibson, D. A. Nicholls, J. Setchell, & K. S. Groven (Eds.), *Manipulating Practices: A Critical Physiotherapy Reader* (pp. 308-333.). Oslo, Norway: Cappelen Damm Forlag.

Hiller, A., Guillemin, M., & Delany, C. (2015). Exploring healthcare communication models in private physiotherapy practice. *Patient education and counseling, 98*(10), 1222-1228.

Houston-McMillan, J. E. (1988). Physiotherapy from a patient's point of view. *Fisioterapia, 44*(2), 38-44.

Hunt, M. R. (2009). Strengths and challenges in the use of interpretive description: reflections arising from a study of the moral experience of health professionals in humanitarian work. *Qualitative Health Research, 19*(9), 1284-1292.

Hush, J. M., Cameron, K., & Mackey, M. (2011). Patient satisfaction with musculoskeletal physical therapy care: a systematic review. *Physical Therapy, 91*(1), 25-36.

Hydén, L.-C., & Peolsson, M. (2002). Pain gestures: the orchestration of speech and body gestures. *Health, 6*(3), 325-345.

Jackson, D., Mannix, J., & Daly, J. (2001). Retaining a viable workforce: A critical challenge for nursing. *Contemporary Nurse, 11*(2-3), 163-172.

Jamarim, M. F. M., da Silva, C. Z., de Abreu Lima, G. M. P., Siqueira, C. L., & Campos, C. J. G. (2019). Nonverbal Communication through Touch: Meanings for Physical Therapists Working in a Hospital Environment. *Aquichan, 19*(4), 1-11.

Jensen, G. M., Gwyer, J., Shepard, K. F., & Hack, L. M. (2000). Expert practice in physical therapy. *Physical Therapy, 80*(1), 28-43.

Jensen, G. M., Shepard, K. F., Gwyer, J., & Hack, L. M. (1992). Attribute dimensions that distinguish master and novice physical therapy clinicians in orthopedic settings. *Physical Therapy, 72*(10), 711-722.

Jensen, G. M., Shepard, K. F., & Hack, L. M. (1990). The novice versus the experienced clinician: Insights into the work of the physical therapist. *Physical Therapy, 70*(5), 314-323.

Jordan, B., & Henderson, A. (1995). Interaction analysis: Foundations and practice. *The journal of the learning sciences, 4*(1), 39-103.

Josephson, I., Woodward-Kron, R., Delany, C., & Hiller, A. (2015). Evaluative language in physiotherapy practice: How does it contribute to the therapeutic relationship? *Social Science and Medicine, 143*, 128-136. doi:10.1016/j.socscimed.2015.08.038

Judson, T. J., Detsky, A. S., & Press, M. J. (2013). Encouraging patients to ask questions: how to overcome "white-coat silence". *Jama, 309*(22), 2325-2326.

Jull, G., Moore, A., Falla, D., Lewis, J., McCarthy, C., & Sterling, M. (2015). *Grieve's modern musculoskeletal physiotherapy*. (4th ed.). London, United Kingdom: Elsevier.

Kaiser, K. (2009). Protecting respondent confidentiality in qualitative research. *Qualitative Health Research, 19*(11), 1632-1641.

Kessels, R. P. (2003). Patients' memory for medical information. *Journal of the Royal Society of Medicine, 96*(5), 219-222.

Kidd, M. O., Bond, C. H., & Bell, M. L. (2011). Patients' perspectives of patient-centredness as important in musculoskeletal physiotherapy interactions: A qualitative study. *Physiotherapy, 97*(2), 154-162. doi:10.1016/j.physio.2010.08.002

Klaber Moffett, J. A., & Richardson, P. H. (1997). The influence of the physiotherapist-patient relationship on pain and disability. *Physiotherapy Theory and Practice, 13*(1), 89-96.

Larsson, I., & Gard, G. (2006). Conceptions of physiotherapy knowledge among Swedish physiotherapists: a phenomenographic study. *Physiotherapy, 92*(2), 110-115. doi:10.1016/j.physio.2005.12.001

Laslett, M. (2009). Physiotherapy Crisis. *New Zealand Journal of Physiotherapy 37*(1), 36-38.

Latvala, E., Vuokila-Oikkonen, P., & Janhonen, S. (2000). Videotaped recording as a method of participant observation in psychiatric nursing research. *Journal of Advanced Nursing, 31*(5), 1252-1257.

Laurendeau, J. (2018). 'You don't need any of that stuff': (Re)stor(y)ing my(nd/) body. *Qualitative Research in Sport, Exercise and Health*, 1-12. doi:10.1080/2159676X.2018.1433227

Lavik, K. O., Frøysa, H., Brattebø, K. F., McLeod, J., & Moltu, C. (2018). The first sessions of psychotherapy: A qualitative meta-analysis of alliance formation processes. *Journal of Psychotherapy Integration, 28*(3), 348-366.

Lawton, M., Conroy, P., Sage, K., & Haddock, G. (2019). Aphasia and stroke therapeutic alliance measure (A-STAM): Development and preliminary psychometric evaluation. *International Journal of Speech-Language Pathology, 21*(5), 459-469.

Leach, M. J. (2005). Rapport: A key to treatment success. *Complementary Therapies in Clinical Practice, 11*(4), 262-265.

Leder, D., & Krucoff, M. W. (2008). The touch that heals: the uses and meanings of touch in the clinical encounter. *The Journal of Alternative and Complementary Medicine, 14*(3), 321-327.

Lee-Treweek, G. (2002). Trust in complementary medicine: the case of cranial osteopathy. *The Sociological Review, 50*(1), 48-68.

Liamputtong, P. (2009). Qualitative data analysis: conceptual and practical considerations. *Health Promotion Journal of Australia, 20*(2), 133-139.

Linton, S. J. (2000). A review of psychological risk factors in back and neck pain. *Spine, 25*(9), 1148-1156.

Lövlie, A.-L. (1981). Part process analysis: Toward a new method for studying interaction. *Journal of Phenomenological Psychology, 12*(2), 261.

Lyle, J. (2003). Stimulated recall: A report on its use in naturalistic research. *British educational research journal, 29*(6), 861-878.

Mackey, A., & Gass, S. M. (2015). *Second language research: Methodology and design*. London, United Kingdom: Routledge.

Magee, D. J., Zachazewski, J. E., & Quillen, W. S. (2007). *Scientific foundations and principles of practice in musculoskeletal rehabilitation.* London, United Kingdom: Elsevier.

Major, C. H., & Savin-Baden, M. (2010). *An introduction to qualitative research synthesis: Managing the information explosion in social science research*. London, United Kingdom: Routledge.

Martin, C., & Sahlström, F. (2010). Learning as longitudinal interactional change: From other-repair to self-repair in physiotherapy treatment. *Discourse Processes, 47*(8), 668-697. doi:10.1080/01638531003628965

Mattsson, M., Wikman, M., Dahlgren, L., & Mattsson, B. (2000). Physiotherapy as empowerment-treating women with chronic pelvic pain. *Advances in Physiotherapy, 2*(3), 125-143.

Mauksch, L. B., Dugdale, D. C., Dodson, S., & Epstein, R. (2008). Relationship, communication, and efficiency in the medical encounter: creating a clinical model from a literature review. *Archives of Internal Medicine, 168*(13), 1387-1395.

Mayan, M. J. (2016). *Essentials of qualitative inquiry*. New York, NY: Left Coast Press, Inc.

McCambridge, J., Witton, J., & Elbourne, D. R. (2014). Systematic review of the Hawthorne effect: new concepts are needed to study research participation effects. *Journal of Clinical Epidemiology, 67*(3), 267-277.

McCollum, L., & Pincus, T. (2009). A biopsychosocial model to complement a biomedical model: patient questionnaire data and socioeconomic status usually are more significant than laboratory tests and imaging studies in prognosis of rheumatoid arthritis. *Rheumatic Disease Clinics, 35*(4), 699-712.

Mead, N., & Bower, P. (2000). Patient-centredness: a conceptual framework and review of the empirical literature. *Social Science & Medicine, 51*(7), 1087-1110.

Mengshoel, A. M. (2012). Mixed methods research–so far easier said than done? *Manual Therapy, 17*(4), 373-375.

Miciak, M., Mayan, M., Brown, C., Joyce, A. S., & Gross, D. P. (2018a). A framework for establishing connections in physiotherapy practice. *Physiotherapy Theory and Practice*, 1-17.

Miciak, M., Mayan, M., Brown, C., Joyce, A. S., & Gross, D. P. (2018b). The necessary conditions of engagement for the therapeutic relationship in physiotherapy: an interpretive description study. *Archives of Physiotherapy, 8*(1), 3.

Millenson, M. L. (2006). The Promise Of Personalized Medicine: A Conversation With Michael Svinte: An IBM vice president explains the company's information-based medicine initiative and its implications for all patients. *Health affairs*, *25*(Suppl1), W54-W60.

Minichiello, V., Aroni, R., Timewell, E., & Alexander, L. (1990). In-depth interviewing: Researching people: Melbourne: Longman Cheshire.

Mudge, S., Stretton, C., & Kayes, N. (2014). Are physiotherapists comfortable with person-centred practice? An autoethnographic insight. *Disability and Rehabilitation, 36*(6), 457-463. doi:10.3109/09638288.2013.797515

Murad, M. S., Chatterley, T., & Guirguis, L. M. (2014). A meta-narrative review of recorded patient–pharmacist interactions: Exploring biomedical or patient-centered communication? *Research in Social and Administrative Pharmacy, 10*(1), 1-20.

Nicholas, M. K., Linton, S. J., Watson, P. J., Main, C. J., & Group, D. (2011). Early identification and management of psychological risk factors ("yellow flags") in patients with low back pain: a reappraisal. *Physical Therapy, 91*(5), 737-753.

Nicholls, D. A. (2017). *The end of physiotherapy*. Brixham, UK: Sunrise Setting Ltd.

Nicholls, D. A., & Gibson, B. E. (2010). The body and physiotherapy. *Physiotherapy Theory and Practice, 26*(8), 497-509. doi:10.3109/09593981003710316

Nicholls, D. A., & Holmes, D. (2012). Discipline, desire, and transgression in physiotherapy practice. *Physiotherapy Theory and Practice, 28*(6), 454-465. doi:10.3109/09593985.2012.676940

Normann, B., Sorgaard, K. W., Salvesen, R., & Moe, S. (2013). Contextualized perceptions of movement as a source of expanded insight: People with multiple sclerosis' experience with physiotherapy. *Physiotherapy Theory & Practice, 29*(1), 19-30. doi:10.3109/09593985.2012.698717

O'Keeffe, M., Cullinane, P., Hurley, J., Leahy, I., Bunzli, S., O'Sullivan, P. B., & O'Sullivan, K. (2016). What influences patient-therapist interactions in musculoskeletal physical therapy? Qualitative systematic review and meta-synthesis [Review]. *Physical Therapy, 96*(5), 609-622. doi:10.2522/ptj.20150240

O'Sullivan, P., Caneiro, J. P., O'Keeffe, M., & O'Sullivan, K. (2016). Unraveling the complexity of low back pain [Review]. *Journal of Orthopaedic and Sports Physical Therapy, 46*(11), 932-937. doi:10.2519/jospt.2016.0609

Øien, A. M., Råheim, M., Iversen, S., & Steihaug, S. (2009). Self-perception as embodied knowledge–changing processes for patients with chronic pain. *Advances in Physiotherapy, 11*(3), 121-129.

Øien, A. M., Steihaug, S., Iversen, S., & Råheim, M. (2011). Communication as negotiation processes in long-term physiotherapy: A qualitative study. *Scandinavian Journal of Caring Sciences, 25*(1), 53-61. doi:10.1111/j.1471-6712.2010.00790.x

Oliveira, V. C., Refshauge, K. M., Ferreira, M. L., Pinto, R. Z., Beckenkamp, P. R., Negrao Filho, R. F., & Ferreira, P. H. (2012). Communication that values patient autonomy is associated with satisfaction with care: a systematic review. *Journal of Physiotherapy, 58*(4), 215-229. doi:https://dx.doi.org/10.1016/S1836-9553(12)70123-6

Pallesen, H., & Buhl, I. (2017). Interdisciplinary facilitation of the minimal participation of patients with severe brain injury in early rehabilitation. *European Journal of Physiotherapy, 19*(1), 13-23.

Pallesen, H., Lund, L. B., Jensen, M., & Roenn-Smidt, H. (2017). The body participating: a qualitative study of early rehabilitation participation for patients with severe brain injury and low level of consciousness. *European Journal of Physiotherapy*, 1-10.

Paradis, E., & Sutkin, G. (2017). Beyond a good story: from Hawthorne Effect to reactivity in health professions education research. *Medical Education, 51*(1), 31-39.

Parry, R. H. (2004). The interactional management of patients' physical incompetence: A conversation analytic study of physiotherapy interactions. *Sociology of Health and Illness, 26*(7), 976-1007. doi:10.1111/j.0141-9889.2004.00425.x

Parry, R. H. (2005). A video analysis of how physiotherapists communicate with patients about errors of performance: insights for practice and policy. *Physiotherapy, 91*(4), 204-214. doi:10.1016/j.physio.2005.05.004

Parry, R. H., & Land, V. (2013). Systematically reviewing and synthesizing evidence from conversation analytic and related discursive research to inform healthcare communication practice and policy: an illustrated guide. *BMC Medical Research Methodology, 13*(1), 69.

Paskins, Z., Sanders, T., Croft, P. R., & Hassell, A. B. (2017). Exploring the Added Value of Video-Stimulated Recall in Researching the Primary Care Doctor–Patient Consultation: A Process Evaluation. *International Journal of Qualitative Methods, 16*(1), 1609406917719623.

Patton, M. Q. (2002). Qualitative interviewing. *Qualitative research and evaluation methods, 3*, 344-347.

Perry, J. F. (1975). Nonverbal communication during physical therapy [Article]. *Physical Therapy, 55*(6), 593-600.

Petitpas, A., & Cornelius, A. (2004). Practitioner-client relationships: Building working alliances. In *Psychology in the Physical and Manual Therapies* (pp. 57-70). Retrieved from https://www.scopus.com/inward/record.uri?eid=2-s2.0-33646238345&doi=10.1016%2fB978-0-443-07352-6.50010-5&partnerID=40&md5=b602f9075e86fffcd0cb7296f187ae93. doi:10.1016/B978-0-443-07352-6.50010-5.

Physiotherapy Board of Australia and Physiotherapy Board of New Zealand. (2015). *Physiotherapy practice thresholds in Australia and Aotearoa New Zealand.* Retreived from https://www.physioboard.org.nz/sites/default/files/PhysiotherapyPractice

Physiotherapy Board of New Zealand. (2018). *Physiotherapy Board Annual Report 2018.* Retreived from https://www.physioboard.org.nz/sites/default/files/PhysiotherapyBoardAnnualReport2018.pdf

Physiotherapy Board of New Zealand. (2018). *Physiotherapy Standards framework*. Retreived from https://www.physioboard.org.nz/wp-content/uploads/2018/03/Physiotherapy-Board-Code-Standards-Thresholds.pdf

Pinto, R. Z., Ferreira, M. L., Oliveira, V. C., Franco, M. R., Adams, R., Maher, C. G., & Ferreira, P. H. (2012). Patient-centred communication is associated with positive therapeutic alliance: A systematic review. *Journal of Physiotherapy, 58*(2), 77-87. doi:10.1016/S1836-9553(12)70087-5

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., Britten, N., & Duffy, S. (2006). *Guidance on the conduct of narrative synthesis in systematic reviews.* Swindon: ESRC.

Potter, M., Gordon, S., & Hamer, P. (2003a). The difficult patient in private practice physiotherapy: A qualitative study. *Australian Journal of Physiotherapy, 49*(1), 53-61.

Potter, M., Gordon, S., & Hamer, P. (2003b). The physiotherapy experience in private practice: The patients' perspective. *Australian Journal of Physiotherapy, 49*(3), 195-202.

Poulis, I. (2007). Bioethics and physiotherapy [Editorial]. *Journal of Medical Ethics*, *33*(8), 435-436. doi:10.1136/jme.2007.021139

Praestegaard, J., & Gard, G. (2011). The perceptions of danish physiotherapists on the ethical issues related to the physiotherapist-patient relationship during the first session: A

phenomenological approach. *BMC Medical Ethics, 12*(1), 1-11. doi:10.1186/1472-6939-12-21

Praestegaard, J., Gard, G., & Glasdam, S. (2013). Practicing physiotherapy in Danish private practice: an ethical perspective. *Medicine, health care and philosophy, 16*(3), 555-564.

Ramsden, E. L. (1968). Interpersonal communication in physical therapy. *Physical Therapy, 48*(10), 1130-1132.

Reid, D. A. & Larmer, P. (2007). The New Zealand Health Priorities: Where do New Zealand Private Practice Physiotherapists fit? *New Zealand Journal of Physiotherapy, 35*(2), 42.

Reid, D. A. (2013). Reflections on the growth of musculoskeletal physiotherapy in New Zealand over the last 100 years and the contribution of New Zealand Physiotherapists on the world stage. *New Zealand Journal of Physiotherapy, 41*(1), 11-14.

Reunanen, M. A. T., Talvitie, U., Järvikoski, A., Pyöriä, O., & Härkäpää, K. (2016). Client's role and participation in stroke physiotherapy encounters: an observational study. *European Journal of Physiotherapy, 18*(4), 210-217. doi:10.1080/21679169.2016.1181207

Reynolds, F. A. (1996). Evaluating the impact of an interprofessional communication course through essay content analysis: Do physiotherapy and occupational therapy students' essays place similar emphasis on responding skills? *Journal of Interprofessional Care, 10*(3), 285-295.

Roberts, L., & Bucksey, S. J. (2007). Communicating with patients: What happens in practice? *Physical Therapy, 87*(5), 586-594. doi:10.2522/ptj.20060077

Roger, J., Darfour, D., Dham, A., Hickman, O., Shaubach, L., & Shepard, K. (2002). Physiotherapists' use of touch in inpatient settings. *Physiotherapy research international : the journal for researchers and clinicians in physical therapy, 7*(3), 170-186.

Roter, D. L., Stewart, M., Putnam, S. M., Lipkin, M., Stiles, W., & Inui, T. S. (1997). Communication patterns of primary care physicians. *JAMA, 277*(4), 350-356.

Rutberg, S., Kostenius, C., & Öhrling, K. (2013). Professional tools and a personal touch - Experiences of physical therapy of persons with migraine. *Disability and Rehabilitation, 35*(19), 1614-1621. doi:10.3109/09638288.2012.748838

Sanders, T., Foster, N. E., Bishop, A., & Ong, B. N. (2013). Biopsychosocial care and the physiotherapy encounter: physiotherapists' accounts of back pain consultations. *BMC Musculoskeletal Disorders, 14*, 65. doi:https://dx.doi.org/10.1186/1471-2474-14-65

Schepens, A., Aelterman, A., & Van Keer, H. (2007). Studying learning processes of student teachers with stimulated recall interviews through changes in interactive cognitions. *Teaching and teacher education, 23*(4), 457-472.

Schoeb, V., & Hiller, A. (2018). The impact of documentation on communication during patient-physiotherapist interactions: A qualitative observational study. *Physiotherapy Theory and Practice*, 1-11. doi:10.1080/09593985.2018.1429036

Schonberger, M., Humle, F., Zeeman, P., & Teasdale, T. W. (2006). Working alliance and patient compliance in brain injury rehabilitation and their relation to psychosocial outcome. *Neuropsychological Rehabilitation, 16*(3), 298-314. doi:https://dx.doi.org/10.1080/09602010500176476

Sedgley, C. (2013). The Responsibilities of being a physiotherapist. In S. Porter (Ed.), *Tidy's Physiotherapy*, (15th ed.), London, England: Churchill Livingstone.

Setchell, J. (2017). What has stigma got to do with physiotherapy? [Editorial]. *Physiotherapy Canada, 69*(1), 1-3. doi:10.3138/ptc.69.1.

Setchell, J., Watson, B., Jones, L., & Gard, M. (2015). Weight stigma in physiotherapy practice: Patient perceptions of interactions with physiotherapists [Article]. *Manual Therapy, 20*(6), 835-841. doi:10.1016/j.math.2015.04.001

Shaw, W. S., Campbell, P., Nelson, C. C., Main, C. J., & Linton, S. J. (2013). Effects of workplace, family and cultural influences on low back pain: What opportunities exist to address social factors in general consultations? *Best Practice & Research in Clinical Rheumatology, 27*(5), 637-648. doi:10.1016/j.berh.2013.09.012

Silverman, J., & Kinnersley, P. (2010). Doctors' non-verbal behaviour in consultations: look at the patient before you look at the computer. *British Journal of General Practice, 60*(571), 76-78. DOI: 10.3399/bjgp10X482293

Silverman, J., Kurtz, S., & Draper, J. (2016). *Skills for communicating with patients* (3rd ed.). London, United Kingdom: Taylor & Francis Ltd.

Sim, J., Smith, M., & French, S. (2004). *Physiotherapy: A psychosocial approach*. London, England: Oxford: Butterworth.

Skjaerven, L. H., Kristoffersen, K., & Gard, G. (2008). An eye for movement quality: a phenomenological study of movement quality reflecting a group of physiotherapists' understanding of the phenomenon. *Physiotherapy Theory & Practice, 24*(1), 13-27. doi:https://dx.doi.org/10.1080/01460860701378042

Slade, S. C., Molloy, E., & Keating, J. L. (2009). Listen to me, tell me': a qualitative study of partnership in care for people with non-specific chronic low back pain. *Clinical Rehabilitation, 23*(3), 270-280.

Spradley, J. P. (2016). *Participant observation*. Orlando, Florida: Harcourt Brace College Publishers.

Steihaug, S., & Malterud, K. (2003). Part process analysis: a qualitative method for studying provider-patient interaction. *Scandinavian Journal of Public Health, 31*(2), 107-112.

Stenmar, L., & Nordholm, L. A. (1994). Swedish physical therapists' beliefs on what makes therapy work. *Physical Therapy, 74*(11), 1034-1039.

Stenner, R., Palmer, S., & Hammond, R. (2019). What matters most to people in musculoskeletal physiotherapy consultations? A qualitative study. *Physiotherapy*, *105*, e57-58.

Street Jr, R. L., Makoul, G., Arora, N. K., & Epstein, R. M. (2009). How does communication heal? Pathways linking clinician–patient communication to health outcomes. *Patient Education and Counseling, 74*(3), 295-301.

Sze-Mun Lee, T., Sullivan, G., & Lansbury, G. (2006). Physiotherapists' communication strategies with clients from culturally diverse backgrounds. *Advances in Physiotherapy, 8*(4), 168-174.

Talvitie, U., & Reunanen, M. (2002). Interaction between physiotherapists and patients in stroke treatment. *Physiotherapy, 88*(2), 77-88.

Taylor, L. (2008). An audit of physiotherapy vacancies over 2006: Analysis of current workforce needs. *New Zealand Journal of Physiotherapy, 36*(1), 1.

Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. In C. Willig, & C Stainton-Rogers (Eds.), *The Sage handbook of qualitative research in psychology,* (2nd ed.). (pp. 17-37). London, England: Sage.

Thing, L. F. (2005). Risk bodies: rehabilitation of sports patients in the physiotherapy clinic. *Nursing Inquiry, 12*(3), 184-191. doi:https://dx.doi.org/10.1111/j.1440-1800.2005.00274.x

Thomson, O. P., Petty, N., & Moore, A. (2014). A qualitative grounded theory study of the conceptions of clinical practice in osteopathy-a continuum from technical rationality to professional artistry. *Manual Therapy, 19*(1), 37-43.

Thorne, S. (2016). *Interpretive description: Qualitative research for applied practice* (2nd ed.), Walnut Creek, United States: Left Coast Press Inc.

Thorne, S., Hislop, T. G., Stajduhar, K., & Oglov, V. (2009). Time-related communication skills from the cancer patient perspective. *Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer, 18*(5), 500-507.

Thorne, S., Kirkham, S. R., & MacDonald-Emes, J. (1997). Focus on qualitative methods. Interpretive description: a noncategorical qualitative alternative for developing nursing knowledge. *Research in nursing & health, 20*(2), 169-177.

Thorne, S., Kirkham, S. R., & O'Flynn-Magee, K. (2004). The analytic challenge in interpretive description. *International Journal of Qualitative Methods, 3*(1), 1-11.

Thorne, S., Oliffe, J., Kim-Sing, C., Hislop, T., Stajduhar, K., Harris, S., . . . Oglov, V. (2010). Helpful communications during the diagnostic period: an interpretive description of patient preferences. *European Journal of Cancer Care, 19*(6), 746-754.

Thorne, S., Stephens, J., & Truant, T. (2016). Building qualitative study design using nursing's disciplinary epistemology. *Journal of Advanced Nursing, 72*(2), 451-460.

Thornquist, E. (1991). Body communication is a continuous process. The first encounter between patient and physiotherapist. *Scandinavian Journal of Primary Health Care, 9*(3), 191-196.

Thornquist, E. (1992). Examination and communication: A study of first encounters between patients and physiotherapists. *Family Practice, 9*(2), 195-202. doi:10.1093/fampra/9.2.195

Thornquist, E. (2006). Face-to-face and hands-on: assumptions and assessments in the physiotherapy clinic. *Medical Anthropology, 25*(1), 65-97.

Thornquist, E. (2012). *Movement and interaction: The Sherborne approach and documentation*. Norway: Universitetsforlaget.

Trede, F., & Flowers, R. (2014). Patient-centred context of health practice relationships. In N. Patton, J. Higgs, C. Croker, D. Tasker, & J. Hummell (Eds.), *Health practice relationships*.(pp. 37-46). Rotterdam, The Netherlands: Sense Publishings.

Vaughan-Graham, J., & Cott, C. (2016). Phronesis: practical wisdom the role of professional practice knowledge in the clinical reasoning of Bobath instructors. *Journal of Evaluation in Clinical Practice*.

Vermeir, P., Vandijck, D., Degroote, S., Peleman, R., Verhaeghe, R., Mortier, E., . . . Vogelaers, D. (2015). Communication in healthcare: a narrative review of the literature and practical recommendations. *International Journal of Clinical Practice, 69*(11), 1257-1267.

Wade, D. T., & Halligan, P. W. (2004). Do biomedical models of illness make for good healthcare systems? *British Medical Journal, 329*(7479), 1398-1401.

Wade, D. T., & Halligan, P. W. (2017). The biopsychosocial model of illness: a model whose time has come: SAGE Publications Sage UK: London, England.

Wijma, A. J., van Wilgen, C. P., Meeus, M., & Nijs, J. (2016). Clinical biopsychosocial physiotherapy assessment of patients with chronic pain: The first step in pain

neuroscience education [Review]. *Physiotherapy Theory & Practice, 32*(5), 368-384. doi:https://dx.doi.org/10.1080/09593985.2016.1194651

Williams, S., & Harrison, K. (1999). Physiotherapeutic interactions: a review of the power dynamic. *Physical Therapy Reviews, 4*(1), 37-50.

Zoffmann, V., Harder, I., & Kirkevold, M. (2008). A person-centered communication and reflection model: sharing decision-making in chronic care. *Qualitative Health Research, 18*(5), 670-685.

Appendix A

Indicative questions for stimulated recall sessions

After viewing a video-recorded excerpt, I will stop the video and start with open-ended questions like:

- What are your reactions to what you just saw?
- What are your thoughts when you look at this?
- What was happening there?

For the physiotherapist participant:

- Can you describe the role and significance of nonverbal communication in your work with patients? (For example: touch)
- Does nonverbal communication play a part in your understanding about the patient? If yes, in what ways does it inform your understanding of the patient?
- Are there specific aspects of nonverbal communication between yourself and your patient that are particularly useful in informing your understanding of the patient? (i.e. movement signs: the way the patient moves-muscle tension, restlessness, unease; eye contact/gaze: restlessness, degree of contact, far-away look, breathing signs: deep breath, shallow breath, sighing; facial expressions: smiling, sadness, yawning; touch: feeling movement, joint mobility.
- What role and significance does nonverbal communication play in your relationship with the patient? Do you think that nonverbal communication plays a role in the trust between patient and physiotherapist?
- Can you think of an example where you did not "read" the patients nonverbal communication (body language) well? What was the impact of this, in terms of the therapeutic relationship?

For the patient participant:

- Can you describe the role and significance of nonverbal communication (both your own and the physiotherapists) in your physiotherapy care?
- Do you think that the physiotherapist's ability to "read" your body language was an important aspect of the interaction/treatment?

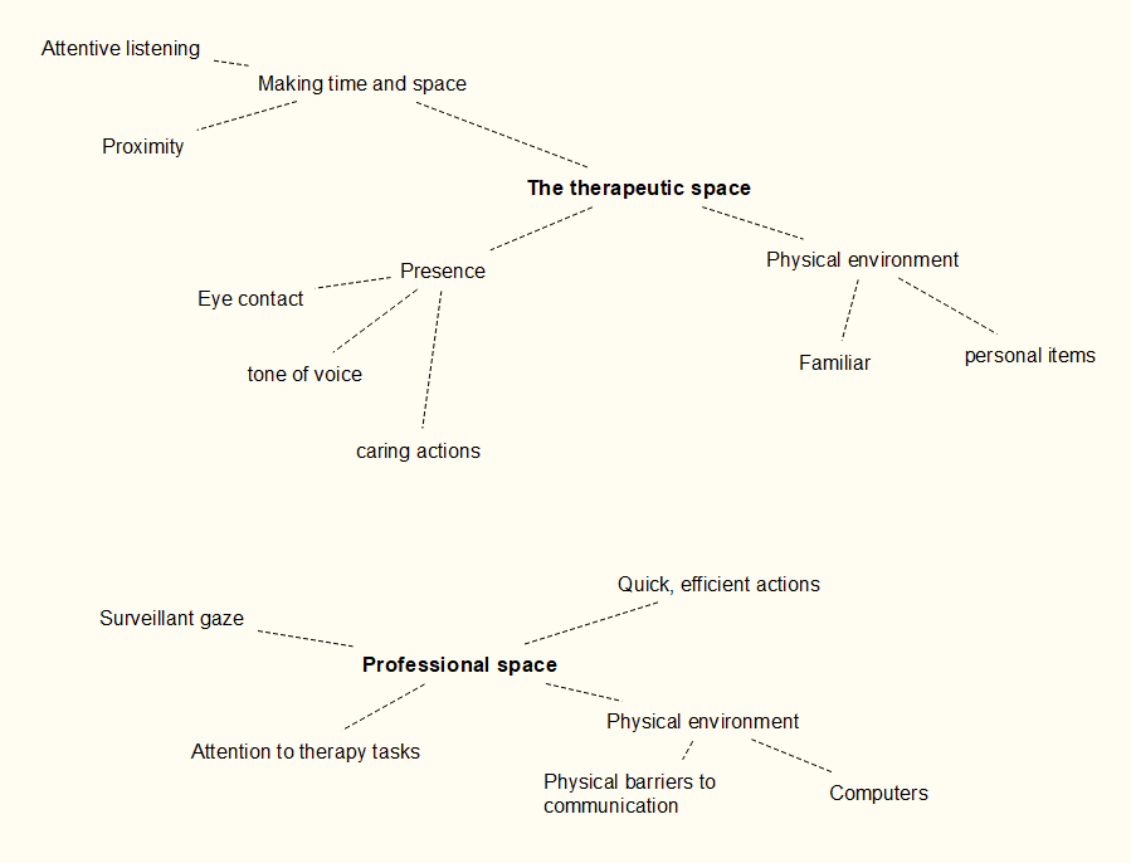
- Were there aspects of the physiotherapist's nonverbal communication you deemed particularly important for the interaction/treatment? (i.e. touch)
- In what ways did the physiotherapist's nonverbal communication influence the trust you had in your physiotherapist? Did this trust take time to build? Were there examples where the physiotherapist's nonverbal communication increased and/or decreased your trust in the physiotherapist?
- Can you describe any examples of when the physiotherapist's nonverbal communication contributed to your understanding of your problem? How did it contribute to your understanding?
- Can you describe any examples of when the physiotherapist did not "read" your nonverbal communication during the treatment? What were the implications of this?

To prompt further reflection:

- Do you remember anything else about what you were thinking at that moment?

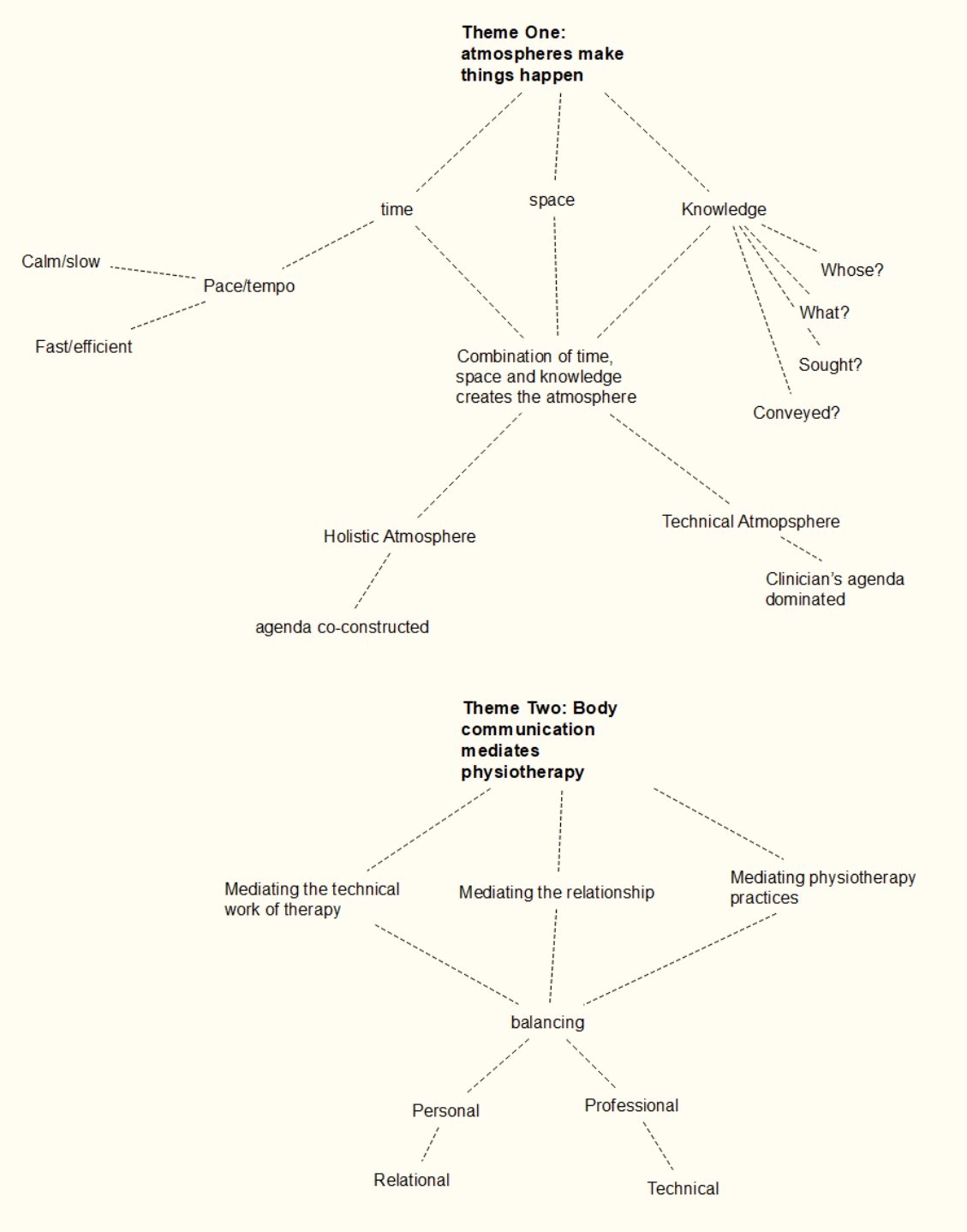
Appendix B

Thematic development- early mind map and analytic memo



Appendix C

Thematic development- late mind map and analytic memo



Appendix D

Ethical approval: Auckland University of Technology Ethics Committee

AUTEC Secretariat

Auckland University of Technology
D-88, WU406 Level 4 WU Building City Campus
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

6 December 2017

Felicity Bright
Faculty of Health and Environmental Sciences

Dear Felicity

Ethics Application: **17/417 Meaning beyond words - Exploring body communication in private practice physiotherapy**

Thank you for submitting your application for ethical review. I am pleased to advise that the Auckland University of Technology Ethics Committee (AUTEC) approved your ethics application at their meeting on 4 December 2017, subject to the following conditions:

1. Clarification of how gender specific issues are being managed in the research protocols and whether there will be gender appropriate research assistants available;
2. Clarification of the following in relation to the recruitment of participants:
    a. Better management of the conflicts of interest around the researcher's professional roles and differentiation of these roles in relation to their role as a researcher. As part of this, AUTEC recommends the use of an independent third party to manage the recruitment and consent processes;
    b. Assurance that patients with whom the researcher has had a professional relationship are being excluded from the study;
    c. How the power imbalances within the clinic setting are being managed and inclusion of a guarantee in the Information Sheet that patients' access to professional care will not be advantaged or disadvantaged by whether or not they participate;
3. Provision of an assurance that both the data and the Consent Forms will be stored separately on AUT premises for six years before destruction;
4. Revision of the Information Sheets as follows:
    a. Simplification of the language and removal of the duplication of information, e.g. the contact details;
    b. Inclusion of the advice provided in the response to section I.1.1. of the application;
    c. Removal of the information about AUT Counselling; d. Inclusion of advice about the ability to have a support person present.

Please provide me with a response to the points raised in these conditions, indicating either how you have satisfied these points or proposing an alternative approach. AUTEC also requires copies of any altered documents, such as Information Sheets, surveys etc. You are not required to resubmit the application form again. Any changes to responses in the form required by the committee in their conditions may be included in a supporting memorandum.

Please note that the Committee is always willing to discuss with applicants the points that have been made. There may be information that has not been made available to the Committee, or aspects of the research may not have been fully understood.

Once your response is received and confirmed as satisfying the Committee's points, you will be notified of the full approval of your ethics application. Full approval is not effective until all the conditions have been met. Data collection may not commence until full approval has been confirmed. If these conditions are not met within six months, your application may be closed and a new application will be required if you wish to continue with this research.

To enable us to provide you with efficient service, we ask that you use the application number and study title in all correspondence with us. If you have any enquiries about this application, or anything else, please do contact us at ethics@aut.ac.nz.

I look forward to hearing from you,

Yours sincerely

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

Cc: clintonphysio@gmail.com; sarahmooney@freenet.co.nz

Appendix E

Patient participant information sheet

Patient participant information sheet

Date information Sheet Produced:
14/11/2017

Study Title: Non-verbal communication in private practice physiotherapy.

An invitation
Tēnā koe and hello

- My name is Clinton Good, and I am a physiotherapist and student researcher. I am interested in how physiotherapists and patients use non-verbal communication during their interaction together. This research will contribute to my qualification of Master of Philosophy.

- You are invited to be part of this research study. Your participation in this research is entirely voluntary (your choice) and whether or not you choose to participate will not affect your access to physiotherapy care.

- This information sheet will explain the research. I appreciate your time reading this material. Please tell me if it is difficult to understand or if you have any questions.

What is the purpose of this research?
I am interested in how physiotherapists and their patients use different aspects of non-verbal communication, such as eye contact, gaze, gesture, posture, and touch. One of my aims is to help physiotherapists to be more aware of the impact of non-verbal communication in clinical practice. I hope that the research findings will allow physiotherapists to use non-verbal communication more effectively with patients, which may in turn, improve their practice.

How will this study help?
Your views and experience will contribute to knowledge of non-verbal communication in physiotherapy practice.

How was I identified and why am I being invited to participate in this research?
You are being invited to take part in this research because have an appointment scheduled with one of the physiotherapists who are taking part in this research.

How do I agree to participate in this research?
You will need to sign and submit a consent form that I will provide for you. You are welcome to contact myself or any member of the research team listed below to find out more about this study.

Researcher:
Clinton Good
Email: clintonphysio@gmail.com
Phone: (09) 307 4949 ext 27706

15-11-17-Auckland University of Technology Ethics Committee 12112017 FB *This version was last edited in October 2017*

Project Supervisors:
Dr. Felicity Bright
Email: felicity.bright@aut.ac.nz
Phone: 09 921 9999 ext 7097

Dr. Sarah Mooney
Email: sarah.mooney@aut.ac.nz
Phone: (09) 921 9999 ext. 6208

Please consider:

- You can withdraw from the study at any time without adverse consequences.
- 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 the findings have been produced, removal of your data may not be possible.

Who can take part?

You are eligible to take part in this research if you:

- are 18-years or older
- have an appointment scheduled with one of the physiotherapists who are taking part in this research

You will be unable to take part in this research if you:

- are unable to communicate in English
- are less than 18-years old

What will happen in this research?

- If you agree to take part in this research, you will be asked to sign a consent form.
- This research will take place over your episode of care (i.e., over most if not all of the treatment sessions you have for your injury).
- The research will involve me observing and videoing your treatment sessions and completing two interviews with you.

Observations of patient-physiotherapist interaction

- Your interaction with your physiotherapist will be video-recorded. You don't need to do anything different to usual- I am interested in the non-verbal communication that occurs between yourself and your physiotherapist.
- The video-recording will require no additional time on your behalf as it will be part of your normal physiotherapy treatment.

Interviews

- Within three days of completing your second and final treatment sessions, you will be asked to take part in an interview. The interview will involve using "video-stimulated recall." This involves showing you a 10-minute video of your interaction with your physiotherapist to help you recall what happened. I will ask questions about the interaction between you and the physiotherapist.
- Each interview should take between 60 and 90 minutes of your time (no more than three hours in total for the two interviews)
- I would like to tape record the interviews to ensure I don't miss important details.

- The interview can take place where you choose. It may be at your home, at AUT or somewhere else. If it costs you to travel to the interview, you will be reimbursed.

What are the discomforts and risks?

- I do not expect there to be any risks to you from participating in this study. However, sometimes it can be uncomfortable being observed and answering questions about your behaviour. It is also possible that during your treatment you will be recorded in a state of undress (if this is necessary for your treatment of your injury).

How will these discomforts and risks be alleviated?

- You may respond to questions as you choose. You do not have to respond to questions that make you feel uncomfortable. Any information you share will remain confidential and your privacy will be respected.
- If you would like, I will pause the recording while you are undressing.
- You are free to invite a support person of your choice (i.e. friend or family member) to be present at any stage during the research process.

What are the benefits of taking part?

Benefits to you: You may not benefit from this study. However, you may find it helpful talking about your interaction with the physiotherapist.

Benefits to others: Your views and experience will help me learn more about non-verbal communication. The findings of this research may help physiotherapists to become more aware of non-verbal communication in their clinical practice. Future patients may benefit from this by receiving treatment more tailored to their needs as the findings may support physiotherapists to be more responsive to their patient's non-verbal communication.

How will my privacy be protected?

- The data collected will remain confidential and the only people with access to the data will be myself, Clinton Good the researcher and my research supervisors; Dr. Felicity Bright and Dr. Sarah Mooney. Transcriptionists who have signed confidentiality agreements may also view the data collected.
- There will be no means of identifying you or your place of work in the research findings.
- You will be asked to choose a pseudonym that will mask your identity, and this will be used for all reporting about the study.
- Video-recordings will be transcribed as a written record of findings but will not be used in any report of the findings.
- Your consent form and the collected data will be stored securely for six years and then the data will be destroyed.
- Your consent form will be kept separate from the collected data.

What is the cost of taking part?

There will be no direct costs to you except your time, which will be approximately 2 to 3 hours. If it costs you to travel to the interview, you will be reimbursed.

Will I receive feedback on the results of this research?

Yes. A summary of the research study will be available to you. This is likely to be in 2019.

What opportunity do I have to consider this invitation?
You do not have to decide today whether or not you will participate in this study. You are welcome to talk to other people before making your decision. You can contact the researcher within three-days if you are interested in participating.

What do I do if I have concerns about this research?
Any concerns regarding the nature of this research should be notified in the first instance to the Project Supervisor, Dr. Felicity Bright, felicity.bright@aut.ac.nz, 09 921 9999 ext. 7097 or 021 724 057

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, Kate O'Connor, ethics@aut.ac.nz, 921 9999 ext. 6038.

Whom do I contact for further information about this research?
Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact any member of the research team as listed above.

This study has received ethical approval from Auckland University of Technology Ethics Committee (AUTEC), ethics reference number 17/417

Appendix F

Physiotherapist participant information sheet

Physiotherapist participant information sheet

Date information Sheet Produced:
14/11/2017

Project Title:
Non-verbal communication in private practice physiotherapy.

An invitation

Tēnā koe and hello

- My name is Clinton Good, and I am a physiotherapist and student researcher. I am interested in how physiotherapists and patients use non-verbal communication during their interaction together. This research will contribute to my qualification of Master of Philosophy.

- You are invited to be part of this research study. Your participation in this research is entirely voluntary (your choice) and whether or not you choose to participate will neither advantage nor disadvantage you.

- This information sheet will explain the research. I appreciate your time reading this material. Please tell me if it is difficult to understand or if you have any questions.

What is the purpose of this research?
I am interested in how physiotherapists and their patients use different aspects of non-verbal communication, such as eye contact, gaze, gesture, posture, and touch. One of my aims is to help physiotherapists to be more aware of the impact of non-verbal communication in clinical practice. I hope that the research findings will allow physiotherapists to use non-verbal communication more effectively with patients, which may in turn, improve their practice.

How will this study help?
Your views and experience will contribute to knowledge of non-verbal communication in physiotherapy practice.

How was I identified and why am I being invited to participate in this research?
You have been invited because you are a registered physiotherapist with at least five years' experience working in a private physiotherapy clinic. The clinic you work at has also registered interest in taking part in this research.

Who can take part?
You are eligible to take part in this research if you:

- currently work in private musculoskeletal clinic in the Auckland area
- have a minimum of five years post-qualifying clinical experience

How do I agree to participate in this research?
You will need to sign and submit a consent form that I will provide for you. You are welcome to contact myself or any member of the research team listed below to find out more about this study.

Researcher Contact Details:
Clinton Good
Email: clintonphysio@gmail.com
Phone: (09) 307 4949 ext. 27706

Project Supervisors Contact Details:
Dr Felicity Bright
Email: felicity.bright@aut.ac.nz
Phone: (09) 921 9999 x 7097

Dr Sarah Mooney
Email: sarah.mooney@aut.ac.nz
Phone: (09) 921 9999 ext. 6208

Please consider:

- You can withdraw from the study at any time with adverse consequences.
- 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 the findings have been produced, removal of your data may not be possible.

What will happen in this research?

- If you agree to take part in this research, you will be asked to sign a consent form.
- This research will take place over your patient's episode of care (i.e., over most if not all of the treatment sessions with your patient).
- The research will involve myself observing and video-recording your treatment sessions, and completing two interviews with you.

Observations of patient-physiotherapist interaction

- Your interaction with your patient will be video-recorded. You don't need to do anything different from usual- I am interested in the non-verbal communication that occurs between yourself and your patient.
- The video-recording will require no additional time on your behalf as it will be part of your normal workday.

Interviews

- Within three days of completing your second and final treatment sessions, you will be asked to take part in an interview. The interview will involve using "video-stimulated recall." This involves showing you a 10-minute video of your interaction with your patient to help you recall what happened. I will ask questions about the interaction between you and your patient.
- Each interview should take between 60 and 90 minutes of your time (three hours in total for the two interviews)
- I would like to tape record the interviews to ensure I don't miss important details.
- The interview can take place where you choose. It may be at your home, at AUT or somewhere else. If it costs you to travel to the interview, I will reimburse you.

What are the discomforts and risks?

I do not expect there to be any risks to you from participating in this study. However, sometimes it can be uncomfortable reflecting on your clinical practice and being observed.

How will these discomforts and risks be alleviated?

- The focus of this study is about learning from your experience and views rather than critiquing your practice.
- You may respond to questions as you choose. You do not have to respond to questions that make you feel uncomfortable. Any information you share will remain confidential and your privacy will be respected.
- You are free to invite a support person of your choice (i.e. a friend or family member) to be present during the interview process.

What are the benefits of taking part?

Benefits to you: You will have the opportunity to reflect on your clinical practice and build awareness of your own and your patients non-verbal communication. This may allow you to use non-verbal communication more effectively with patients, which may lead to improving treatment outcomes. Your involvement in this research can count towards your continuing professional development.

Benefits to others: Patients may benefit by receiving treatment more tailored to their needs as the findings may support physiotherapists to be more responsive to their patient's non-verbal communication.

How will my privacy be protected?

- The data collected will remain confidential and the only people with access to the data will be myself, Clinton Good the researcher and my research supervisors, Dr Felicity Bright and Dr Sarah Mooney. Transcriptionists who have signed confidentiality agreements may also view the data collected.
- There will be no means of identifying you or your place of work in the research findings.
- You will be asked to choose a pseudonym that will mask your identity, and this will be used for all reporting about the study.

- Video-recordings will be transcribed as a written record of findings but will not be used in any report of the findings.
- Your consent form and the collected data will be stored securely for six years and then the data will be destroyed.
- Your consent form will be kept separate from the collected data.

What is the cost of taking part?
There will be no direct costs to you except your time, which will be approximately 2 to 3 hours. If you travel to take part in interviews, your travel costs will be reimbursed.

What opportunity do I have to consider this invitation?
You do not have to decide today whether or not you will participate in this study. You are welcome to talk to other people before making your decision. You can contact the researcher within the next week if you are interested in participating.

Will I receive feedback on the results of this research?
Yes. A summary of the research study will be available to you. This will be in 2019.

What do I do if I have concerns about this research?
Any concerns regarding the nature of this research should be notified in the first instance to the Project Supervisor, Dr. Felicity Bright, felicity.bright@aut.ac.nz, (09) 921 9999 ext. 7097.

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.

Whom do I contact for further information about this research?
Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact any member of the research team as listed above.

This study has received ethical approval from Auckland University of Technology Ethics Committee (AUTEC), ethics reference number 17/417

Appendix G

Patient consent form

Patient consent form

Project Title: Non-verbal communication in private practice physiotherapy.

Project Supervisors Contact Details:
Dr. Felicity Bright
Email: felicity.bright@aut.ac.nz
Phone: (09) 921 9999 ext 7097

Dr. Sarah Mooney
Email: sarah.mooney@aut.ac.nz
Phone: (09) 921 9999 ext 6208

Researcher Contact Details:
Clinton Good
Email: clintonphysio@gmail.com
Phone: (09) 307 4949 ext 27706

- ○ I have read and understood the information provided about this research project in the Participant Information Sheet dated 14/11/2017.
- ○ I have had an opportunity to ask questions, and I am happy with the answers given.
- ○ I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- ○ I understand I can choose not to answer questions
- ○ I understand that the video-recordings will be transcribed but they will not be used in any report of the findings and will not be published in any form outside of this project.
- ○ I understand that the video-recordings may capture me in a state of undress.
- ○ I understand that I will not be identified in the research findings.
- ○ 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 the findings have been produced, removal of my data may not be possible.

- ❖ I wish to receive a summary of findings Yes ○ No ○
- ❖ I agree to take part in this research Yes ○ No ○

Participants signature:

.....

Participant name:

.....

Participant contact details:

.....

Date:

.....

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:
Clinton Good
Email: clintonphysio@gmail.com
Phone: (09) 307 4949 ext 27706

Project Supervisors Contact Details:
Dr. Felicity Bright
Email: felicity.bright@aut.ac.nz
Phone: 09 921 9999 ext 7097

Dr. Sarah Mooney
Email: sarah.mooney@aut.ac.nz
Phone: (09) 921 9999 ext 6208

This study has received ethical approval from Auckland University of Technology Ethics Committee (AUTEC), ethics reference number 17/417

Appendix H

Physiotherapist consent form

Physiotherapist consent form

Project Title: Non-verbal communication in private practice physiotherapy.

Researcher Contact Details:
Clinton Good
Email: clintonphysio@gmail.com
Phone: (09) 307 4949 ext 27706

Project Supervisors Contact Details:
Dr. Felicity Bright
Email: felicity.bright@aut.ac.nz
Phone: (09) 921 9999 ext 7097

Dr. Sarah Mooney
Email: sarah.mooney@aut.ac.nz
Phone: (09) 921 9999 ext 6208

- ○ I have read and understood the information provided about this research project in the Participant Information Sheet dated 14/11/2017.
- ○ I have had an opportunity to ask questions, and I am happy with the answers given.
- ○ I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- ○ I understand I can choose not to answer questions
- ○ I understand that the video-recordings will be transcribed but they will not be used in any report of the findings and will not be published in any form outside of this project.
- ○ I understand that I will not be identified in the research findings
- ○ 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 the findings have been produced, removal of my data may not be possible.

- ❖ I wish to receive a summary of findings Yes ○ No ○
- ❖ I agree to take part in this research Yes ○ No ○

Participants signature:

.....

Participant name: .

.....

Participant contact details:

.....

Date:

.....

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:
Clinton Good
Email: clintonphysio@gmail.com
Phone: (09) 307 4949 ext 27706

Project Supervisors Contact Details:
Dr. Felicity Bright
Email: felicity.bright@aut.ac.nz
Phone: 09 921 9999 ext 7097

Dr. Sarah Mooney
Email: sarah.mooney@aut.ac.nz
Phone: (09) 921 9999 ext 6208

This study has received ethical approval from Auckland University of Technology Ethics Committee (AUTEC), ethics reference number 17/417

Appendix I

Confidentiality agreement

Confidentiality Agreement

Project title:	Body communication in private practice physiotherapy
Project Supervisor:	Dr. Felicity Bright
Researcher:	Clinton Good

- ○ 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.

Transcriber's signature :

.....

Transcriber's name:

.....

Transcriber's Contact Details:

.....

.....

.....

.....

Date:

.....

Project Supervisor's Contact Details:

Dr. Felicity Bright: felicity.bright@aut.ac.nz,
09 921 9999 x 7097 or 021 724 057

This study has received ethical approval from Auckland University of Technology Ethics Committee (AUTEC), ethics reference number 17/417

Appendix J

Physiotherapist characteristics

Characteristic	Simon	Robert
Years of experience in private practice	20	17
Post-graduate qualification (field of physiotherapy)	Master of Health Practice-Musculoskeletal	N/A
Number of sessions observed with the patient	6/6	3/4

Characteristic	Kate	Sharon
Age in years	39	20
Reason for seeking treatment	Lower back pain	Temporomandibular joint pain
Funding source for treatment	Accident Compensation Corporation (ACC)	Self-funded
Number of sessions observed with the physiotherapist	6/6 (Simon)	3/4 (Robert)