Clinical Educators' Conceptualisations of Effective Communication in Final Year Physiotherapy Students in Aotearoa, New Zealand

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Abstract

Effective communication between a physiotherapist and a patient is considered essential for physiotherapy practice. Students are required to demonstrate 'effective communication' to become registered, yet it is not clear what actually constitutes effective communication. This study aimed to explore how clinical educators conceptualise effective communication in final year physiotherapy students in musculo-skeletal clinical settings in Aotearoa New Zealand.

Interpretive description informed by social constructionism was utilised as a methodology for this study. Seven physiotherapy clinical educators participated in the study. Data were gathered from two sources: written reflections from watching a student-patient interaction and semi-structured interviews. Reflexive thematic analysis was used to analyse the data.

Two themes were constructed from the data. Theme one is 'Communication is complex'. The findings conclude that communication is by nature complex because it is subjective and deeply personal, and requires students to adapt and respond to a diverse range of patients and clinical situations 'in the moment'. This suggests the task of making communication expectations visible to students, both in a practice setting and in assessment, is difficult. Theme two is named 'Competing priorities wrestle for a place'. This study demonstrates that communication practices are shaped and perpetuated by broader understandings of physiotherapy practice which currently appear to be held in tension with each another rather than integrated. These are positioned as competing priorities at play.

Going forward, a broader understanding of the construct of person-centred communication is needed with particular attention to practical strategies for understanding the holistic needs of patients and more focus on doing care *with* patients rather than for them. Further training of both students and educators is needed so they have the tools to enact these in practice. Educators need support to make visible expectations of adaptive and responsive communication to students both in practice and in assessment so education is transparent and students know what the expectations are.

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Attestation of Authorship

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 acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma by a university or other institution of higher learning.

28/4/23

Ethics Approval

Ethics approval for the study was given by Auckland University of Technology Ethics Committee on 31st May 2021 (Appendix A).

Transcription Guide

… Indicates some words from the participant quote have been removed at this point of the quote.

[ ] Indicates a word has been added to the quote to assist the reader to understand the context of the quote.

Chapter One: Introduction

Chapter Overview

This thesis explores how physiotherapy clinical educators conceptualise effective communication in final year physiotherapy students in musculo-skeletal clinical settings in Aotearoa New Zealand. In this study I focus specifically on interpersonal communication, between a physiotherapy student and a patient. Using an interpretive descriptive methodology, this research aims to develop a detailed and nuanced description of how effective communication is conceptualised by physiotherapy clinical educators. Clinical educators are key people in assisting students to become registered practitioners yet little is known about their expectations of student communication. Therefore, it is important we understand how clinical educators currently conceptualise effective communication, so in future we can better support the development of communication skills in students.

In this chapter, I first provide an overview of the context of physiotherapy training and registration in New Zealand. Effective communication in physiotherapy is then explored as a core professional competence and one in which a threshold must be reached to practice safely (Health and Disability Commissioner, 1996, Threshold competence 3.1D; Physiotherapy Board of Australia and New Zealand, 2015). Lastly, I will discuss my rationale and personal interest in undertaking this study and outline the research question.

Communication in Physiotherapy

The physiotherapy workforce in New Zealand provides a wide range of physiotherapy services to diverse population groups within inpatient, outpatient, community, public, and private health environments, yet the diversity of the populations that physiotherapists provide services to is not represented in the physiotherapy workforce. For instance, in 2022 only 5% of practicing physiotherapists were Māori (Physiotherapy Board of New Zealand, 2022), despite Māori making up 16.5% of the general population (External Data Quality Panel, 2019). Similarly, only 1% of practicing physiotherapists in 2022 identified as Pasifika (Physiotherapy Board of New Zealand, 2022), despite 8.1% of the general population identified as Pacific peoples (External

Data Quality Panel, 2019). This means that physiotherapists will often work with cultural groups who differ from their own, which will require adaptable and responsive communication skills (Physiotherapy Board of Australia and New Zealand, 2015). Physiotherapy services are also provided in a diverse range of settings which require them to adapt their practice to the requirements for each setting. For instance, in private practice 70-80% of treatment is funded by the Accident Compensation Corporation (Reid & Larmer, 2007). Physiotherapists are often renumerated by the number of patients they see in a limited time frame which means there is an incentive to see as many patients as possible (Glasgow, 2019). This may negatively influence their communication as time pressures and deadlines have been shown to hinder communication practices and particularly the sharing of information with patients (Blackburn et al., 2019).

Telehealth has recently emerged as an option for physiotherapy assessment and treatment, which requires physiotherapists to adapt their communication to an online environment. Working outside one's normal practice challenges clinicians to think about practices which have previously been taken for granted (Ceprnja et al., 2022). For example, Australian physiotherapists found it easier to build connections during telehealth consultations if they had previously met the patient face to face (Ceprnja et al., 2022). In addition, lack of physical touch was found to be a challenge for physiotherapists, who learn much about muscles and joints by touch and palpation (Ceprnja et al., 2022), and, need to utilise verbal and listening skills more in the telehealth environment. Telehealth is just one example of ways physiotherapists need to adapt their communication to the changing needs of service provision.

The Physiotherapy Board of Australia and New Zealand (PBANZ), which determines practice thresholds and competencies for professional physiotherapy registration, has identified effective communication as a core competence in physiotherapy practice and *communicator* as one of the roles of a physiotherapist (Physiotherapy Board of Australia and New Zealand, 2015). Effective communication is further broken down to include: interpersonal communication between a student and a patient, interprofessional communication (between other health professionals and physiotherapy colleagues), and written communication and documentation. This study intentionally focuses on interpersonal communication between a student and a

patient. The Board recognises that competencies can be described on a continuum, with threshold competence as the entry level required to practice as a registered physiotherapist in Australia and New Zealand (Physiotherapy Board of Australia and New Zealand, 2015). These threshold competencies detailed by the Board are related to the seven roles of a physiotherapist: physiotherapy practitioner, professional and ethical practitioner, communicator, reflective practitioner and self-directed learner, collaborative practitioner, educator, and manager/leader. Six of these roles involve some form of communication and four directly include interpersonal communication as part of the role (Appendix B). Table 1 details competencies related to communication under the role of "Communicator" which have been adapted from PBANZ (Physiotherapy Board of Australia and New Zealand, 2015).

Table 1

Competencies required by 'The communicator'

Role	**Competencies related to communication**
Communicator	• Listen competently to the client. • Respond to verbal and non-verbal communication. • Utilise communication technology where appropriate in practice. • Recognise what has shaped their own communication preferences. • Recognise the language, comprehension, and culture of the client, and adapt verbal and non-verbal communication so it is accessible. • Adapt communication to adequately resolve conflict with the client and others through negotiation and co-operations.

(Physiotherapy Board of Australia and New Zealand, 2015, p. 108)

When looking at the content of the threshold competencies (Physiotherapy Board of Australia and New Zealand, 2015), it is possible to see how these have been built on a foundation of the biopsychosocial model and person-centred care. There is an emphasis on using knowledge of pathology, anatomy and physiology and other biomedical sciences (Physiotherapy Board of Australia and New Zealand, 2015, Threshold competence 1.1B and 1.1C) consistent with the "bio" in the biopsychosocial model. There is also an emphasis on recognising the variety of determinants that may

impact on the patient and their needs within physiotherapy (Physiotherapy Board of Australia and New Zealand, 2015, Threshold 1.13A) and an emphasis on involving the patient in planning treatment (Physiotherapy Board of Australia and New Zealand, 2015, Threshold competence, 1.12C) which are also consistent with the patient-centred biopsychosocial model. Person-centred care takes its cue from what is important to the patient themselves (Hiller et al., 2015; Pinto et al., 2012). It has been described as "thinking and doing care *with* the person, rather than *for* patients" (Jesus et al., 2021, p.1626) and is closely related to the biopsychosocial model of care, which respects the dignity, rights, culture and goals of the client as well as their opinions and preferences.

Communication needs to be *adaptive* and *responsive*: adapting to the situation and the context, to the person and their culture, their language proficiency, impairments, age, and health literacy (Physiotherapy Board of Australia and New Zealand, 2015, Threshold competence 3.1F). This reflects the notion of improvisation (Haidet, 2007). The physiotherapist needs to recognise what the patient is signalling both verbally and non-verbally and respond "in the moment" (Jensen & Dwyer, 2000). Physiotherapists in Aotearoa New Zealand also need to adapt and respond to the different groups they work with, including patients from different cultures. (Physiotherapy Board of Australia and New Zealand, 2015). Physiotherapists need to recognise that their own preferences for communication may have arisen from and been influenced by their own cultural and environmental factors (Physiotherapy Board of Australia and New Zealand, 2015), and that their patients may not have the same communication needs and preferences. They will need to be adaptive and responsive to each unique patient and situation or risk failing communicate effectively.

Physiotherapists need to adopt a collaborative approach with patients to facilitate discussion, shared decision making, and self-management (Forbes et al., 2017; Physiotherapy Board of Australia and New Zealand, 2015). A collaborative approach is characterised by a more mutual relationship (Roter et al., 1987), reflecting a shift from the traditional models in which the therapist is positioned as the expert. At times there may be some benevolent manipulation, where the physiotherapist has to find a vantage point to help the patient understand about their condition (Davidhizar, 2005). Collaborative discussion with patients has been found to be a characteristic of

physiotherapists who have been identified as experts by their peers (Jensen & Dwyer, 2000), yet little is known about how physiotherapist develop these skills.

Health consumers in Aotearoa New Zealand have the legal right to effective communication, including the right to “be provided with services that take into account the needs, values, beliefs of different cultural, religious, social and ethnic groups” (Health and Disability Commissioner, 1996, Section Rights of Consumers and duties of Providers; Right 1:3), and the right to communication in a ”form, language and manner that enables the consumer to understand”(Health and Disability Commissioner, 1996, Section Rights of Consumers and duties of Providers; Right 5:1). This means communication training must prepare physiotherapy students to meet these rights, which will require skills for recognising and evaluating these needs in patients and adapting their communication accordingly.

Physiotherapy Training in New Zealand

Traditionally, New Zealand has had two physiotherapy training institutions: Auckland University of Technology, and the University of Otago. A third institution was recently established in Waikato under Te Pukenga/Wintec (Wintec, 2022). Although the two historical schools have some differences, each operates a four-year programme and physiotherapy students spend most of their final year on clinical placements supervised by clinical educators (Refer to Glossary for different titles/roles). Clinical educators are primarily clinicians who take on an extra role of education for students while they are on clinical placement. In addition to their clinical work, they have a dual role as both mentors and assessors (Meyer et al., 2019). The new Physiotherapy degree at Wintec (Te Pukenga/Wintec, n.d.) aims to increase the number of Māori and Pasifika physiotherapists in the workforce, and physiotherapists who are culturally responsive and equipped to work in rural and remote communities (Reid & Dixon, 2018). By doing so, they aim to develop the diversity of graduating physiotherapists who have the communication skills to be responsive to the populations they are likely to serve, which will in turn support the rights of consumers to receive communication in a form, language and manner that they can understand (Health and Disability Commissioner, 1996, Section Rights of Consumers and duties of Providers; Right 5:1).

The physiotherapy training institutions are responsible for training and preparing students to meet the threshold competencies. However, recent research suggests that students may not be meeting the threshold competencies for communication. A study by Bright et al. (2018) explored final year physiotherapy students' conceptualisations of communication at one university by analysing their written assignments and found that students did not see communication as collaborative and responsive but instead as "unidimensional and unidirectional" (Bright et al., 2018, p.4). Communication was seen as something done *to* patients rather than mutually co-constructed *with* them. Clinical educators have a critical role to play in facilitating and supporting communication skills in students while they are on placement, hence this study has particular significance in understanding how they currently understand effective student communication.

Communication skills training is integrated into physiotherapy lectures and programmes with the aim of producing graduates who meet the threshold competencies of the Physiotherapy Board. However, it is during the final year, when students are on placement most of the year, when they get to apply their knowledge in authentic settings under the supervision of university-approved clinical educators. These educators attend a training day run by the university to prepare them for this role. Educators have a key role to play in identifying communication gaps and giving students formal and informal feed forward, offering constructive guidance, so they can reach these threshold competencies and ultimately it is the educators who also assess their communication skills while on placement. The assessment and judgement of student communication while on placement is done by observational assessments and relies on the subjective judgements of the clinical educators. Attempts to reduce subjectivity have included the use of the Assessment of Physiotherapy Practice tool (APP) (Dalton et al., 2011).

Defining and Measuring 'Effective' Communication

While communication is deemed important in physiotherapy, clarity about what constitutes 'effective' communication is unclear (Bright et al., 2018). As such, it is unclear how something which is not clearly defined can be assessed. One author argues that effective communication occurs when "the sender and receiver connect

with each other, initially for the common purpose of exchanging information and achieving mutual understanding" (O'Toole, 2020, p 4). A significant limitation of this definition is that it may not be practically possible to know if mutual understanding has occurred and it would be extremely difficult to assess communication based on this definition. In New Zealand, communication is currently assessed on placement using the Assessment of Physiotherapy Practice tool (APP) (Dalton, 2011). This has one item pertaining to interpersonal communication which states communication is "effective and appropriate". This relates to both verbal and non-verbal communication and is rated on a Likert scale from 0 – 4 (Dalton, 2011) (see Table 2).

Table 2

APP Learning outcomes communication and key to scoring

Communicates effectively and appropriately-verbal and non-verbal	0	1	2	3	4
Demonstrates clear and accurate documentation	0	1	2	3	4

0	Infrequently demonstrates performance indicators
1	Demonstrates the performance indicator to an adequate standard some of the time
2	Demonstrates the performance indicator to an adequate standard for the placement
3	Demonstrates the performance indicator to a good standard for the placement
4	Demonstrates the performance indicator to an excellent standard for the placement

(Auckland University of Technology, n.d)

Each item includes a list of performance indicators, for example, "student questions effectively to gain appropriate information". Each indicator is then assigned a rating between zero and four as indicated in Table 2. The APP tool has been found to have high levels of inter-rater reliability (Dalton et al., 2011). However, a significant weakness of the study (Dalton et al., 2011) was that the researchers did not ensure that educators avoided speaking to each other before rating students. This may have falsely inflated the validity of the tool. It seems unlikely that a single score from 0-4 can

provide adequate nuanced feedback to students about such a complex skill as communication.

A person-centred approach to communication as espoused by the New Zealand Physiotherapy Board (2015), requires collaboration and connection between the physiotherapist and the patient to make sense of what is occurring for both parties (Bright et al., 2018). A recent study of Canadian physiotherapists found connection occurs when patients are "seen, heard and appreciated", and when both patients and physiotherapists make meaningful contributions to the treatment process (Miciak et al., 2018). For dynamic mutual interactions to occur, the agendas of each party need to be made clear and this is done via both verbal and body communication (Thornquist, 1997). Both the physiotherapist and the patient need to reach a shared understanding of the patient's problem and needs, as well as have agreed goals and an understanding of how the problem will be managed (Melin et al., 2021). Such communication requires a breaking down of traditional roles so that both the patient and the physiotherapist can bring their understanding, skills, and energy together. This contrasts with a typical physiotherapy interaction where physiotherapists using a predominantly biomedical model dominate and control the interactions (Thornquist, 1997).

Patients consistently rate communication with their physiotherapist as very important to them (Potter et al., 2003; Trede, 2000). A study in Scotland exploring person-centredness in 25 patients with chronic low back pain reported that *all* participants highlighted communication as extremely important during the semi-structured interviews, despite it not being a specific interview question. Features of communication rated as important to patients included clear explanations in language they could understand (Cooper et al., 2008; Kidd et al., 2011), the ability to inspire confidence (Kidd et al., 2011), empathy particularly in relation to pain (Kidd et al., 2011) and good listening skills (Cooper et al., 2008; Kidd et al., 2011). Of interest is that all features rated as important to patients were in the affective domain relating to patients' feelings, emotions and attitudes and were linked to patients feeling actively involved in the therapeutic process (Cooper et al., 2008).

Whilst effective communication is a core competency for physiotherapists, it is still not clear what constitutes effective communication. This has implications for the way clinical educators assess and evaluate clinical communication. If effective communication cannot be defined and made visible to students, it could potentially be challenging for them to understand what is expected and what they are being assessed on. This study aims to address a gap in the literature and physiotherapy practice by examining clinical educators' understanding of what effective communication is and how they support final year students to develop such communication.

Research Question

This study explores interpersonal communication practices in musculoskeletal physiotherapy settings, to address the following research question:

How do clinical educators conceptualise effective communication in final year physiotherapy students in Aotearoa New Zealand?

By exploring the complexities of interpersonal communication, new knowledge about what effective communication is in physiotherapy practice will contribute to the growing field of communication in healthcare, and specifically physiotherapy. The benefits of enhanced understanding will help inform future development of curricula and training programmes for clinical educators and also provide students with greater clarity about what constitutes 'effective communication' so they can adequately meet thresholds for practice required for professional registration (Physiotherapy Board of Australia and New Zealand, 2015).

My Rationale for and Interest in Undertaking this Study

My interest in the essential role of communication in healthcare grew from personal observations and reflections in clinical practice, and my own experience as a consumer of health services. As a consumer, I have accessed a number of health services with varying degrees of satisfaction, often coming away feeling I was not involved in decisions about my own health or that my concerns were not listened to. In the majority of cases, my personal satisfaction was related, in a large part, to the quality of the relationship and rapport between myself and the providers. I always prioritised and sought out providers with whom I felt at ease and felt I could communicate openly

with. I wanted professionals who were clinically competent, who would listen to my concerns, and whom I could talk to without judgement and discuss treatment options. In many instances such practitioners were hard to find.

In my own physiotherapy practice as an experienced physiotherapist, I have experienced first-hand how a 'good' relationship with my patients leads to improved mutual satisfaction for both the patients and myself as well as better treatment outcomes. To me, my role in building a therapeutic relationship means helping the patient to feel at ease, seeking to understand the patient's situation holistically, setting collaborative goals, and ultimately resulting in satisfaction both for the patient and myself throughout the process. Feedback from clients has affirmed that they have appreciated this working relationship. At other times I have felt it harder to build therapeutic relationships with clients and I wondered what is different and what were the missing components. Over the years I have worked with many physiotherapists and occupational therapists. Anecdotally I have noticed that those who utilised what I considered a patient-centred and holistic approach and developed a strong therapeutic relationship, had better patient outcomes and improved patient satisfaction. In contrast, I observed therapists with very good technical knowledge and skills but less well-developed communication skills experience more patient complaints and poor follow-up attendance.

I have also been aware of external factors which influence communication and make it more challenging to build a good relationship with my patients. This has included time pressures, especially when working in busy health systems that are short-staffed. Another external factor has been the tension between patient preferences and needs, and social and economic expectations that are enforced by our health system. For example, when patients are under the care of Accident Compensation Corporation (ACC) and have been off work with an injury, they are supported to either stay at work or gradually return to work. ACC sets a target date by which they expect the client to be fully returned to work. One key performance indicator (KPI) is the number of days' weekly compensation paid for a particular patient (Accident Compensation Corporation, July 2022). This then influences the communication between the patient and the physiotherapist because the focus cannot be solely on the patient preferences and must also consider the requirements of ACC, the service funder. This creates an

external influence on the relationship. All the above factors contribute to the complexity of providing patient-centred communication.

Lastly, drawing on my experience as a clinical educator, I am interested in understanding how to best teach and support my healthcare students to develop effective communication; this has led to an interest in this study. Communication is a complex subject to teach and assess because of the degree of individuality each party brings and that there is no one right way to communicate. Communication has to be constructed in the moment between parties, requiring it to be adaptive and responsive. There also remains a gap in the literature about the best ways to teach communication skills.

These experiences have all led to an interest in the significance of effective communication in healthcare and specifically physiotherapy and in trying to understand what effective communication looks like in practice.

Overview of the Thesis Structure

This chapter has outlined the topic of effective interpersonal communication between a physiotherapist and their patient and provided a background to this study. Chapter two, the literature review, critically examines the current body of literature related to effective communication in physiotherapy students and highlights the gaps, thereby providing a rationale for this study. Chapter three provides an introduction to interpretive description, the methodology used for this study. It also details the methods including sampling, recruitment, data collection, analysis, how quality was ensured, and ethical principles. In chapter four the findings from the study are presented with two themes which were constructed from the data. Chapter five, the final chapter, includes a discussion of key findings relevant to the research question in the context of current literature and considers the significance of these for practice. In this chapter both the strengths and limitations of the study and recommendations for future research are discussed. The conclusion summarises the study findings and the significance relative to future curricula development and training of both clinical educators and students.

Chapter Two: Literature Review

Chapter Overview

This chapter provides a critique of the existing literature about interpersonal communication in undergraduate physiotherapy students. While recognising there are many other important forms of communication, such as interprofessional communication and written communication, this review deliberately focuses on interpersonal communication between a physiotherapy student and their patient. First, I examine existing literature about why communication is important in healthcare more broadly. Second, current communication practices between physiotherapists and their patients are considered. Third, a presentation of the articles selected for the scoping review is presented.

The Importance of Communication in Healthcare

There is an increasing body of literature in healthcare across many disciplines which demonstrates the importance of communication in healthcare (Grenfell & Soundy, 2022; King & Hoppe, 2013; Ong et al., 1995; Umberfield et al., 2019). Effective communication has been found to support safe and high-quality patient care and reduce complaints and unintended consequences (Umberfield et al., 2019). Effective communication has also been shown to improve patient satisfaction with care and improve treatment outcomes (Ong et al., 1995; Stewart et al., 2000).

Communication Supports High quality and safe patient care

There is increasing recognition of the importance of interpersonal communication in healthcare to deliver high quality, safe and effective patient care (King & Hoppe, 2013). Ineffective communication is a leading cause of unintended patient harm and sentinel events (Krautscheid, 2008; Umberfield et al., 2019). In Aotearoa New Zealand, a 25% increase in healthcare complaints in 2021 and 2022 has arisen and complainants want to know that providers understand their concerns (Health Disability Commissioner, 2022, August). In contrast, effective communication has been associated with better health outcomes (Hall et al., 2010; Lang, 2012), adherence to treatment (Fuertes et al., 2017), better patient safety (Ong et al., 2000), and improved quality of health services (Hall et al., 2010; Kurtz et al., 1988). Communication also helps to facilitate a better

understanding of a patient's needs and concerns by contributing to higher-quality care and satisfaction amongst patients (Hall et al., 2010); there is evidence to suggest satisfied patients tend to have satisfied clinicians (Haas et al., 2000).

Communication Facilitates a Positive Patient Experience

Communication mediates a positive therapeutic alliance (See Glossary) and engagement in healthcare, both of which are associated with improved health outcomes (Bordin, 1979; Chichirez & Purcărea, 2018; Wampold, 2000). A positive therapeutic alliance is characterised by a sense of collaboration, warmth and support between the patient and the physiotherapist, and agreement on the goals of treatment (Bishop et al., 2021; Greenson, 2018; Martin & Garske, 2000) and communication is key in achieving this. For instance, when clinicians involved patients in treatment planning, improved adherence and satisfaction with treatment resulted (Fuertes et al., 2017). Furthermore empathetic, reciprocal and responsive relationships with healthcare professionals are valued by patients (Bishop et al., 2021). Such mutual and reciprocal relationships are facilitated by communication and foster engagement whereby both the therapist and the patient become "active, committed and invested" collaborators in the person's healthcare (Bright et al., 2015, p. 650). Communication has a central role to play in fostering engagement (Pollak et al., 2017) by ensuring patients are given time and space to express themselves, and feel listened to by practitioners who are present, responsive and able to "see the world through another's eyes" (Konrad, 2009, p.407).

Effective Communication Improves Patient Outcomes

There is an established association in healthcare between provider-patient communication and patient outcomes (Jackson, 2005; Stewart et al., 2000; Stewart, 1995). For example, listening may be therapeutic if when a provider shows empathy and understanding of a patient's concerns it improves the patient's psychological well-being (Ong et al., 2000). Additionally, communication may indirectly contribute to better outcomes for several reasons. Firstly, effective communication may lead to improved satisfaction with treatment by improving the patient's understanding of their condition which motivates them to adhere to treatment or improves their self-efficacy (Street et al., 2009). Another example of how communication directly influences outcomes is when a clinician takes time to better understand the patient's

needs, preferences and concerns, which can lead to better decisions about treatment options which suit that unique patient (Street et al., 2009). Lastly, communication can improve access to health services and by association provide holistic care. For example, a clinician may provide the patient with information about additional services they can access or direct a patient to a complementary service, thereby enhancing their health and ultimately leading to better outcomes (Street et al., 2009). To improve patient outcomes, a better understanding of how communication is currently being practiced in physiotherapy is needed.

Current Communicative Practices in Physiotherapy

This section explores how physiotherapists currently enact communication in practice. Examination of the literature highlighted the differences between what physiotherapists claim to value and what they actually value in practice, and the significance of this. The literature also emphasises that although physiotherapists espouse using a patient-centred approach, their enacted values only demonstrate some aspects of patient-centred care. As a profession, physiotherapy is yet to fully enact holistic patient-centred communication by attending to emotional, psychosocial and spiritual aspects of care (Bright et al., 2018; Reunanen et al., 2016). Physiotherapists have also been found to inconsistently involve patients in goal-setting and treatment planning in practice (Woodward-Kron et al., 2012). Current communication practices have implications for both clinicians and their patients.

Physiotherapists Tend to Lead and Control Consultations

Predominantly physiotherapists have been found to lead consultations and set the agenda, with patients having less active involvement in the treatment process (Hiller et al., 2015; Woodward-Kron et al., 2012). Talvitie and Reunanen (2002), in a study of Finnish physiotherapists working with people with orthopaedic and neurological conditions, found physiotherapists dominated the conversations and patients only asked a few questions or made brief comments. Patients rarely initiated conversation and mostly focused on carrying out the physiotherapists exercise instructions. Hiller et al. (2015) in an Australian study observing private practice treatment sessions found many examples of physiotherapists interrupting patients to ask their next question. Some patients may be happy with letting the physiotherapists lead whilst others may

wish to have more involvement (Bishop et al., 2021)**,** which suggests physiotherapists need to create space and time to respond to patients and enable negotiation of how much involvement each patient prefers**.**

Dominant Focus on Physical Aspects of the Patient's Condition

A tendency to focus communication on the physical aspects of a patient's condition and place less emphasis on the social, emotional and psychological experiences associated with the condition was found in several studies (Bright et al., 2018; Reunanen et al., 2016). Physiotherapists place an emphasis on reaching a diagnosis and managing impairments (Hiller et al., 2015; McCollum & Pincus, 2009). In doing so, patients come to be positioned as having impaired bodies which need fixing and physiotherapists are positioned as the ones with expert knowledge who can fix them (Bright et al., 2018). The underlying practice philosophy shapes their communication practice. For instance, there is an emphasis on asking questions to understand a patient's pain experience (Hiller et al., 2015; Opsommer & Schoeb, 2014) and history of the symptoms (Synnott et al., 2015). There is a tendency towards less communication about psychological factors (Cowell et al., 2018) as physiotherapists report feeling less comfortable exploring psychological aspects, often avoiding sensitive topics as it feels intrusive and outside their experience and scope of practice (Cowell et al., 2018). Hiller et al. (2015) found physiotherapists were very comfortable asking about pain with very specific questions and had the language repertoire to do so. This differs from other allied health professionals. For example, a study which compared differences between health professionals on an interdisciplinary programme found physiotherapy students were less attuned to a patient's emotions than occupational therapy students (Reynolds, 1996), which may reflect the different training they receive (Synnott et al., 2015). For example, occupational therapy training prepares students specifically for working in the field of mental health in addition to other settings and therefore has more focus on psychosocial factors (Scanlan et al., 2017). Although physiotherapists, when asked, will commonly espouse a person centred, holistic model of communication (Wijma et al., 2016), in practice there remains a dominant focus on the physical aspects of the person's condition. This is associated with neglect of the social and psychological aspects of care (Foster, 2011),

suggesting certain aspects of a person-centred approach are utilised whilst others are not (Hiller et al., 2015).

Value of Responsiveness and Reciprocity

Another aspect of person centred care deemed important is responsiveness to the individual patient (Leplege et al., 2007). Responsiveness and reciprocity have more recently arisen in physiotherapy research and been described as important features of a 'good' physiotherapist (Kleiner et al., 2022) but accounts of how frequently these features are demonstrated in practice differ. Being responsive to a patient's expressed needs first requires attention to the patient's story which is an important factor for fostering engagement (Miciak et al., 2018). Reciprocity involves listening and building on what a patient says rather than continuing with pre-determined questions and agendas. A recent phenomenological study by Kleiner et al. (2022) exploring 12 physiotherapists' perceptions of responsiveness, found physiotherapists defined responsiveness as being attuned and giving attention to the unique needs of each patient and their situation, and individualising approaches to care for each patient. Patients express their needs both verbally and non-verbally, so identifying their needs by reading the person's verbal and non-verbal cues is a core component of responsive communication (Kleiner et al., 2022). Hiller et al. (2015) found physiotherapists used touch and casual conversation to respond to patients. For instance, if a patient was in pain, a physiotherapist may respond with a pat on the arm. However, in contrast they also found most physiotherapy consultations followed a consistent, repetitive, and structured approach which may constitute a lack of responsiveness as the physiotherapist follows well-established patterns rather than being open to what a patient may bring or raise. Findings by Hiller et al. (2015) emerged from an observational study and reflected what actually occurred in practice, thereby providing real-time information. In a hermeneutical study (Kleiner et al., 2022) amongst physiotherapists, one physiotherapist commented that she had been taught she needed to control and lead consultations (Kleiner et al., 2022). However, she had noticed with experience she was now learning to empower patients to take the lead and set the agenda. This suggests responsiveness may be a feature that develops with experience after trial and error and developing confidence and time to consider alternative approaches. It also suggests power and control is valued by the profession.

Bright et al. (2018) found that final year physiotherapy students lacked attention to the need for responsiveness and saw communication as something done *to* the patients (Bright et al., 2018) rather than reciprocal and mutually co-constructed (Gergen, 2015). This study by Bright et al. (2018) used student assignments as data and found when students reflected on communication with patients there was no sense of responsiveness, with minimal attention paid to the communication of the patient and their participation in the interaction. One limitation of this study is that students' written work may not accurately capture what they would do in practice and more likely reflects what students think is required to pass the assessment.

Body Communication Frequently Used

Body communication (also referred to as non-verbal communication), is also a large part of interactions between a physiotherapist and their patient (Roberts & Bucksey, 2007; Thornquist, 1991). Gestures, nodding and eye contact are used to demonstrate empathy and interest in the patient and maintain communicative flow (Hiller et al., 2015) although it is recognised that not everyone evaluates these in the same way. For instance, whilst eye contact is appreciated by many, an intense stare can be intimidating (Good, 2020) and for some cultures, can even be insulting (Akechi et al., 2013). Good (2020) in a New Zealand study in musculoskeletal settings, found physiotherapists used body communication to create a positive atmosphere in which therapy takes place. For example, physiotherapists used their actions to show patients they had time for them by creating a slower tempo. They used their bodies to demonstrate attentive listening by leaning forwards, nodding, and gazing (Good, 2020). These findings are similar to a Norwegian study by Thornquist (1991), who described how therapists conveyed attention by turning towards patients, sitting at similar level to patients, and leaning forward as they spoke. There is still only a small body of literature which explores body communication in physiotherapy (Bjorbækmo & Mengshoel, 2016; Good, 2020), so it remains unknown how typical this is in practice and how body communication is perceived by patients.

Challenges of Current Communication Practices

We know that in current communication practice physiotherapists lead and control conversations and heavily focus on the biological aspects of a patient's condition, with less emphasis on the psychological and social impacts (Bello, 2012; Hiller et al., 2015;

Woodward-Kron et al., 2012). Failing to enact holistic care can have negative consequences for physiotherapists and their patients. A dualistic approach where patients' physical well-being is seen as separate from their emotional and psychological well-being is reductionist (Nicholls & Gibson, 2010; Rosenbaum & Silverman, 2013) and risks not understanding what is important to patients. When psychosocial aspects of care are not given consideration, patients feel disengaged from treatment (Thing, 2005) and if therapists dominate treatment sessions, this can lead to a failure to understand the patients' concerns, values, and preferences (Judson et al., 2013). Juggling all these complex factors in a session is demanding for physiotherapists. However, it appears physiotherapists perceive that they lack the skills, confidence, and time to talk with patients about how their conditions impact on their social and psychological well-being (Cowell, 2019) and this has implications for training of both students and educators. Zangoni and Thomson (2017) in a study of Italian physiotherapists identified a lack of knowledge on how to manage psychosocial aspects of care and a fear of losing patients if they focused on these aspects. Study participants reported a lack of mentoring to guide them in a more psychosocial approach to treating patients with low back pain which left them feeling uncertain. It seems physiotherapists are confident addressing physical aspects of a patient's condition but currently lack both the skill and confidence to provide more holistic assessment and treatment.

This section has explored current communication practice in physiotherapy and found physiotherapists tend to lead and control clinical interactions (Talvitie, 1996; Woodward-Kron et al., 2012), and have a predominant focus on the physical aspects of the person's condition (Bright et al., 2018; Hiller et al., 2015; Opsommer & Schoeb, 2014; Reunanen et al., 2016; Synnott et al., 2015). Physiotherapists tend to take control of conversations and inconsistently involve patients in goal setting and treatment planning (Hiller et al., 2015; Talvitie & Reunanen, 2002; Woodward-Kron et al., 2012). Body communication is frequently used to convey empathy and attention (Good, 2020), and reciprocal and responsive interactions are valued (Kleiner et al., 2022). This study will further explore whether clinical educators have these same conceptualisations of communication as physiotherapists who are not working as educators.

A Scoping Review of Effective communication in Physiotherapy students

A scoping review of published research was undertaken on how clinical educators understand interpersonal communication between physiotherapy students and their patients, to determine the extent of the current research, ascertain the key components of communication the studies describe, and to analyse gaps in knowledge. Clinical educators greatly influence how physiotherapy students integrate theoretical and practical understandings of interpersonal communication in clinical practice, yet it is not yet known how clinical educators themselves understand communication. Understanding this will inform future training needs so educators are supported in providing optimal guidance for students. For this reason, a scoping review was conducted to systematically map the research published in the area and identify existing gaps in knowledge based on the Joanna Briggs Institute guidelines for scoping reviews(Peters et al., 2015).

Methods

The search strategy was formulated using the Modified PICO framework (Curtin University, n.d.) which includes a formulation of the population to be studied, the phenomenon of interest, and the context for the review.

Population: The population of interest is clinical educators. Other comparable terms for clinical educator include clinical supervisor, instructor, teacher, and mentor (See Glossary).

Interest: The phenomenon of interest is communication between a physiotherapy student and a patient. Interprofessional communication and written communication are not the phenomenon of interest.

Context: the context is the physiotherapy profession and more specifically, clinical education for physiotherapy students in musculoskeletal settings.

The following review question, framed by the research question and study aims, was formulated: How do physiotherapy clinical educators understand and evaluate effective communication in physiotherapy students?

Inclusion/Exclusion Criteria

The review protocol was framed using the Preferred Reporting items for Systematic Reviews and Meta analyses (PRISMA) for scoping reviews. To be eligible for the review, papers needed to:

- describe aspects of communication between a student and a patient from the perspective of the clinical educator or attend to how communication was evaluated in students
- be written in English, and utilise some quotes from the original data (Major & Savin-Baden, 2010) to ensure data represented participants' voices.
- used qualitative and/or mixed methods studies.

There was no restriction on date of publication and articles were not removed based on quality assessments completed by either peer reviewers or the researcher in keeping with scoping review protocols (Petticrew & Roberts, 2006). Articles were excluded if they;

- analysed forms of communication than other between a student and a patient such as interprofessional communication, written communication or communication between the educator and the student.
- if they represented patient perspectives on communication.
- if they referred to internationally trained physiotherapists seeking registration in another country because this often pertained to quality of training and language ability which was not the focus of this study.
- were quantitative studies with no analysis of elements of communication and systematic reviews.

Search Strategy

To identify potentially relevant sources, the following databases were searched with no date restriction: Scopus, Science Direct, ProQuest Nursing and Allied Health, Open source, and Pub Med. The search was also repeated in Google scholar. The search was completed in December 2022. A trial of different search terms and strategies were used and then search terms were refined in conjunction with my supervisors.

Final search terms used for the Scopus search were:

Physiotherap* OR physical therapy OR “Physiotherap* student”

AND clinical educator OR instructor OR supervisor OR mentor OR teacher

AND communication OR interaction OR interpersonal

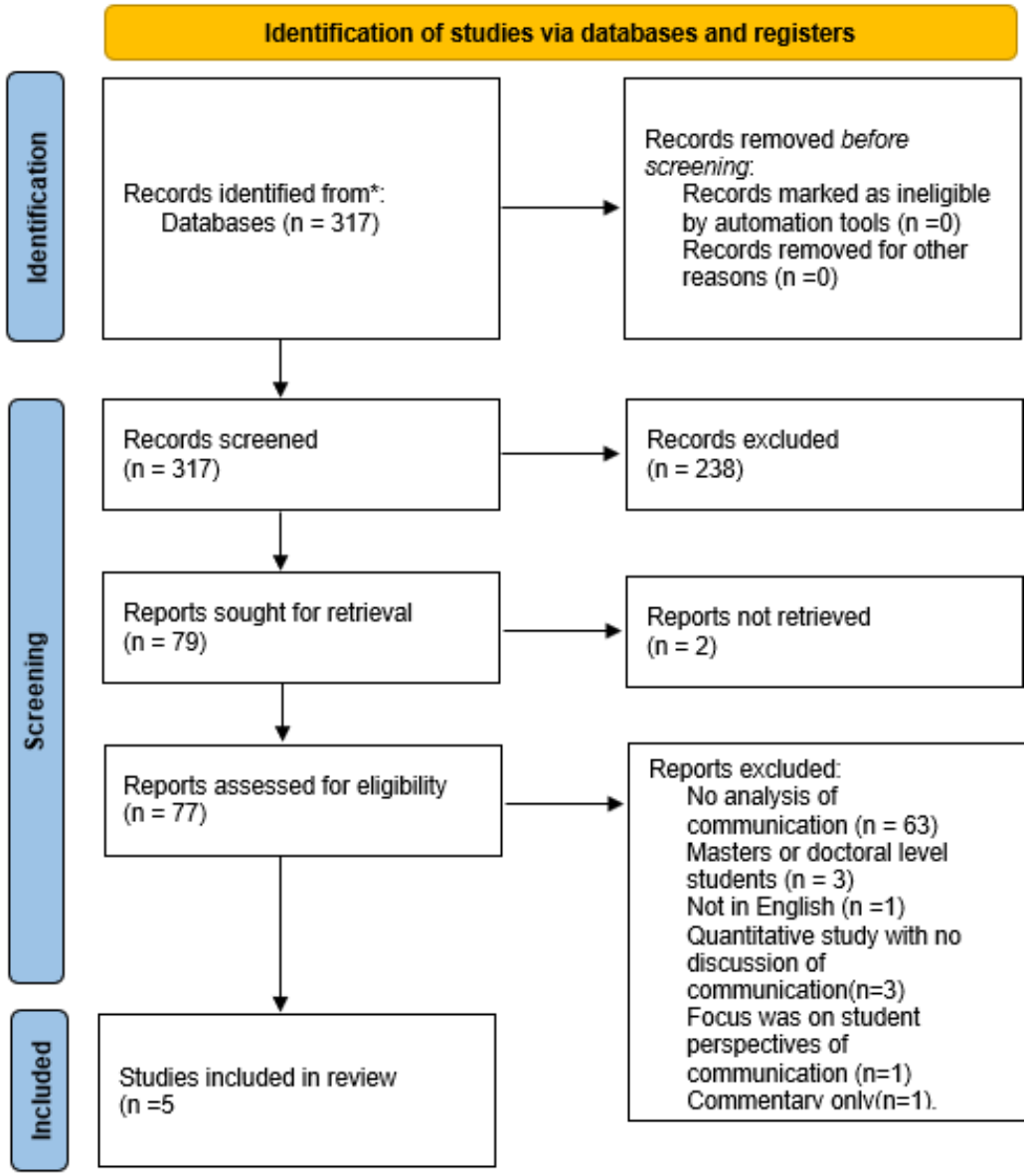
Data Extraction

The search strategy is defined in Figure 1. A total of 317 articles were found across all databases searched. Before screening any duplicates were removed automatically by software. Article titles and abstracts were scanned for relevance to the review question. Articles were excluded if they did not meet the review criteria. Articles which potentially met the inclusion criteria were located, except for two which could not be found. Five articles were eligible for inclusion in final review.

All included articles were saved and managed in EndNote reference manager. Once the studies were identified, charting of all the findings was completed (Aromataris & Munn, 2020). This included extracting data about the purpose of the studies, the methodology used, the setting, the methods, and key findings related to the research question. The quality of the literature was appraised using the Critical Appraisal Skills Checklist (CASP) (Critical Appraisal Skills Programme, 2022) which consisted of 10 specific questions (Appendix D). No scoring system is recommended with this checklist (Critical Appraisal Skills Programme, 2022); however, comments are provided based on the ten questions and included in Table 3 which guided the critical review of the studies. A Prisma flow chart detailing how selection of the studies as made is seen in Figure 1.

Figure 1

Prisma flow chart of selection of papers for the study



(Page et al., 2021)

Table 3

Summary of key information from each study

Reference	Methodology	Purpose	Setting	Methods	Participants	Key interpretations related to the primary research question	Quality assessment using CASP
(Elder & McNamara, 2016)	Qualitative Methodology not stated.	To capture the relative value of feedback about communication to students in different settings.	Melbourne, Australia. One metropolitan hospital and university.	12 educators or supervisors Sampling not stated. Focus groups.	Clinical educators and supervisors from three different sites- educators and academics. Two were in authentic workplace settings and one was in a workshop setting All participants had a minimum of five years' experience.	Feedback in the workshop setting provided rich insights about the students approach to the patient or their manner interacting with patient. Ample detail of language and communication issues given. Little mention of communication skill in hospital setting and feedback to students was more general about overall performance.	Ethics principles not clearly stated but may be because it was part of a larger study. Sampling processes lacked clarity.

Reference	Methodology	Purpose	Setting	Methods	Participants	Key interpretations related to the primary research question	Quality assessment using CASP
(Jette et al., 2007)	Grounded theory.	Explore clinical educators' perspectives of supporting students with fitness to practice issues.	Massachusetts, Rhode Island, USA Variety of clinical settings including paediatrics, inpatients, outpatients and acute care.	Convenience sampling Interviews.	31 physiotherapists who were also clinical instructors. Experience ranged from 1.5-25 years.	Clinical educators considered that an entry level student must be able to focus on the patient, demonstrate self-confidence and be able to speak to patients in a way that they will be able to understand. They should demonstrate respect and engender respect from patients and other staff.	Recognised bias inevitable in grounded theory and reported it. No details of ethical considerations.
(Lo et al., 2018)	Mixed methods.	Identify educators' perceptions of fitness to practice issues in students.	Victoria, Australia 34 sites and 8 health services.	Online survey which had both closed and open questions Closed questions summarised using descriptive stats Open text questions were analysed using thematic analysis.	79 Physiotherapy clinical educators	Fitness to practice (FTP) issues included professional behaviour and poor communication such as being overly laid back, poor attention to dress, neatness, looking tired, bored and disinterested, yawning frequently.	Details of recruitment process not made explicit. Ethical approval stated but ethical principles were not fully detailed.

Reference	Methodology	Purpose	Setting	Methods	Participants	Key interpretations related to the primary research question	Quality assessment using CASP
(Wolff-Burke, 2005)	Qualitative, methodology not stated.	Identify professional behaviours that clinical instructors expect, to describe appropriate and inappropriate behaviours and to compare these to literature.	Virginia. United States America 11 physiotherapy clinics.	Random selection of 167 physiotherapy sites were sent a letter of invitation. 23 clinical instructors responded, nine were excluded. Interviews.	11 clinical instructors.	Expected behaviours include competence in English, being able to verbalise appropriately and at the right time, active listening, demonstrating caring and understanding by the manner in which they spoke and interacted with the patient. Inappropriate behaviours included inappropriate language and gestures, inappropriate conversation such as arguing, complaining. Not being responsive to patients including ignoring signs of physical or emotional distress were also seen to be inappropriate behaviour. Educators valued students who could communicate with confidence.	Relationship between researcher and participants could have been made more explicit. Tool for analysis not named but adequate description of analytical process included.

Reference	Methodology	Purpose	Setting	Methods	Participants	Key interpretations related to the primary research question	Quality assessment using CASP
(Woodward-Kron et al., 2012)	Qualitative, methodology not stated.	Understand what educators and supervisors valued in terms of effective student communication with patients.	Melbourne, Australia. Workshop setting at university and a large teaching hospital associated with the university.	Two phases. Phase one workshop at University in Melbourne Phase two at hospital associated with the University.	12 clinical educators and supervisors with at least five years' experience.	In the hospital setting there was infrequent feedback given to students about communication. Little emphasis on involving patients in decision making Agreed aspects of communication they valued included nonverbal communication, manner, language, content and organisation and interactional tools. Supervisors valued students who interacted with confidence, maturity and respectfulness.	No examination of the researchers' influence on participants particularly being present for the videoing of feedback sessions.

Data Analysis and Synthesis

A total of five studies were selected for the qualitative synthesis. These studies were from two countries including Australia (n= 3) and United States of America (n= 2). The studies used a range of methodologies including grounded theory (n=1), and mixed methods (n=1). The other studies used qualitative methods but did not specify a methodology. Jette et al. (2007) and Wolff Burke (2005) both interviewed clinical educators to enquire about fitness and practice and professional behaviour respectively in physiotherapy students. Lo et al. (2018) used surveys which were analysed using both descriptive statistics and thematic analysis. Elder and McNamara (2016) and Woodward-Kron et al. (2012) recorded educators' feedback about students communication in both simulated workshop settings and in hospital settings as they occurred naturally. Only one of the studies set out primarily to analyse communication (Woodward-Kron et al., 2012), and one study aimed to capture feedback about communication in various settings such as a simulated workshop and in an authentic teaching hospital, to consider the differences (Elder & McNamara, 2016). In the remaining studies communication constituted a small aspect within a broader analysis of physiotherapy.

Functions of Communication in the Literature

In the reviewed literature, the function of communication was primarily to gather all the information from patients necessary for making a diagnosis and planning treatment (Elder & McNamara, 2016; Woodward-Kron et al., 2012). Jette et al. (2007) reported communication was needed to demonstrate that the student was in control. Skills to organise information and provide signposting, as well as skills to summarise, clarify and check information were highlighted by educators as functions of communication (Woodward-Kron et al., 2012). Educators described another function of communication, namely, to facilitate a well-structured assessment (Woodward-Kron et al., 2012); however, what consituted effective communication was not defined. Communication was perceived as important to demonstrate empathy and develop rapport with the patient. Factors which hindered and facilitated rapport and empathy were described. For instance, a student who was relaxed, friendly, and warm was positively regarded whilst other students who appeared to look down on the patient,

looked ill at ease, and were too casual were evaluated negatively (Woodward-Kron et al., 2012).

Feedback About Communication Skills Lacking in Hospital Settings

Two studies examined feedback educators gave students in two different settings: a hospital setting and a workshop. Audio-recordings of educators' feedback to students via a lapel microphone in hospital settings demonstrated that minimal feedback was given about communication practices (Elder & McNamara, 2016; Woodward-Kron et al., 2012). Most of the naturally-occurring feedback in the hospital was about clinical skills and knowledge. Both studies found although the setting was less authentic, feedback in the workshop settings provided more insights about the breadth of communication than data gathered in the hospital settings (Elder & McNamara, 2016; Woodward-Kron et al., 2012). Feedback in the workshop was about appropriate language choices where plain, simple language was regarded positively and technical language and slang were less well regarded. Educators often commented on a student's manner including their attitudes and behaviour, and how students interacted with patients. The greater breadth of feedback in the workshop setting may be because educators were primed to give more feedback to their peers and to researchers. Clinical educators were able to describe complex features of communication and drew on a diverse range of language features to do so. In contrast, feedback about communication occurring routinely and spontaneously in the hospital settings was found to be minimal (Elder & McNamara, 2016). For example one educator commented " I suppose the only thing I didn't hear you asking him was… " (Elder & McNamara, 2016, p 164). Communication was implied but the key focus was the missing information the student did not gather. Woodward-Kron et al. (2012) also found in the hospital setting educators rarely mentioned communication in their feedback except at the end of a placement at which point they were required to comment on communication on the assessment template. One possible explanation for the limited feedback about communication could be that educators did not see any difficulties with the students' communication and chose not to focus on it. Other possible explanations for the limited feedback on communication could be that in authentic hospital settings clinical educators have many other aspects of practice to focus on and communication is a lesser priority and they require prompts such as

those on the assessment form to be reminded to comment about communication. Elder and McNamara (2016) found in the hospital setting, however, that feedback to students focused on clinical skills, with an emphasis on gathering enough information to make an accurate assessment. This may suggest communication skills are considered less of a priority than the more clinical skills.

Communication Skills in Physiotherapy Students

Educators valued students who could communicate confidently (Elder & McNamara, 2016; Jette et al., 2007; Woodward-Kron et al., 2012), and with maturity and respect towards their patients (Elder & McNamara, 2016; Jette et al., 2007; Woodward-Kron et al., 2012). Only one study in the synthesis provided any analysis of behaviours seen to demonstrate confidence. These included use of the ”voice, words and body language”, (Jette et al., 2007, p. 838). Confidence was seen to be important to establish the trust of the patient and educators wanted students to demonstrate confidence even when they did not feel confident (Jette et al., 2007). Confident student communicators were positively evaluated (Elder & McNamara, 2016). In contrast, an educator commented that timid and shy communicators were likely to struggle to be heard and would have difficulty being heard by patients (Elder & McNamara, 2016). No descriptions were given of non-verbal features which portrayed timidity and shyness, which could potentially make it challenging for a student to identify behavioural changes (Elder & McNamara, 2016).

Non-verbal communication in students was suggested to contribute to building positive rapport with patients and demonstrate interest in them. Aspects of non-verbal communication mentioned were eye contact, facial expressions, posture and movement of the head, body and limbs (Woodward-Kron et al., 2012), and affect (Wolff Burke, 2005). Non-verbal communication was evaluated both positively and negatively by educators. For example, educators commented on ‘too much’ or ‘not enough’ of a certain behaviour. Features of non-verbal communication which were considered not appropriate were yawning, looking out of the window and not being present to the patient (Woodward-Kron et al., 2012). Having a flat affect was also thought to reflect poor communication (Wolff Burke, 2005). The context in which the behaviour was used determined whether it was appropriate or not and was dependent

on other behaviours and actions occurring. For example, one educator made the following comment about a student, “at times it was really not quite appropriate smiling” (Woodward-Kron et al., 2012, p. 170). This feedback is quite vague and without context is unlikely to provide insight to the student without more detail being given. Active listening was often portrayed by non-verbal behaviour such as nodding and leaning forwards, suggesting it is important for both educators and students to focus on behaviours that students may be unaware of.

The role of the patient in the interaction was less obvious in the literature (Woodward-Kron et al., 2012). Woodward-Kron et al. (2012) who, despite finding educators valued a patient centred approach, found little emphasis in educator feedback involving patients in shared decision making. Students may not have had the clinical experience to elicit this or it may be that mutual decision making and treatment planning are considered higher order skills (Woodward-Kron et al., 2012). Alternatively, the demonstration of a limited application of patient centredness could suggest a lack of full understanding about all the aspects of patient centred communication.

Verbal communication was seen as an important feature of communication so students could communicate in ways that patients can understand (Jette et al., 2007). This was, however, described more in the workshop than the hospital contexts (Elder & McNamara, 2016). Verbal skills were used to elicit, clarify information and paraphrase what the patient had said (Elder & McNamara, 2016; Woodward-Kron et al., 2012). Some educators disliked the use of slang and jargon. In contrast another educator could see past the slang if it helped the student build rapport (Elder & McNamara, 2016, p. 167). “Plain, clear language” was valued by educators (Woodward-Kron et al., 2012, p. 171) and they preferred limited use of fillers such as ‘so’ and ‘ok’ (Elder & McNamara, 2016). Wolff-Burke (2005) also reported educators considered the appropriate timing of verbal communication to be important although no examples were given as to what was meant by this. Educators valued two-way communication that was responsive to patients (Jette et al., 2007) and they negatively evaluated features of verbal communication such as failure to respond to patients or clarify what they were saying (Elder & McNamara, 2016). It is not clear in the literature

how educators made a judgement about these valued nuances of communication, nor how such information is made clear to students.

Both verbal and non-verbal communication were seen to portray professional behaviour. Professional behaviours were evaluated both positively and negatively by educators. Examples of communicative behaviours evaluated positively included demonstration of empathy, appropriate dress, maturity, and polite manners (Wolff Burke, 2005). Clinical educators valued learners who could show initiative, take responsibility for their actions and their learning, and be open to feedback (Wolff Burke, 2005). Lo et al. (2017) identifed a number of negative behaviours that they flagged as fitness to practice issues such as poor attention to personal apearance, looking tired or bored, being disinterested, and yawning frequently. Wolff Burke (2005) also highlighted inapproriate language, tasteless jokes, undesirable gestures, and arrogance as concerning behaviours. Wolff Burke (2005) reported that most of these behaviours are significant for their impact on others but are challenging to define. For instance, attitudes and values are harder to describe than cognitive skills, yet can have a significant impact on patients and therefore need to be considered.

Current Gaps in Knowledge

Firstly, there are very few studies which explore how clinical educators understand effective communication, and none in the context of Aotearoa New Zealand. Only one study purposely set out to explore what clinical educators value about communication in physiotherapy students (Woodward-Kron et al., 2012). Other studies explored the best way to gather feedback about student communication (Elder & McNamara, 2016), and behaviours of entry level physiotherapy students. Fitness to practice issues (Jette et al., 2007; Lo et al., 2018), and professional behaviours of physiotherapy students (Wolff Burke, 2005) were the focus of other studies. Communication was one aspect of these studies but not the prime focus. This demonstrates how little evidence there is to date on what constitutess effective communication amongst clinical educators and the need for further research, thereby highlighting the significance of the current study.

A further gap identified in the literature was the absence of a description about what it means to adapt communication and to be responsive to different patients and their

unique presentations and experiences of illness or injury. This knowledge gap has informed some of the interview questions in the current study aiming to explore the idea of adapatability and responsiveness further with educators. Studies which observe students in practice and how they adapt to different situations and build on what patients have said would add further insights in addition to the current study. Lastly, I was unable to find any qualitative studies which analysed the value of the Assessment of Physiotherapy Practice (APP)(Appendix C) tool to assess communication, only quantitative studies. Elder and McNamara (2016) and Woodward-Kron et al. (2012) found when educators were giving feedback in authentic hospital settings, more feedback was provided when an assessment template was used. This suggests if an assessment form which asked for nuanced and descriptive feedback about communication behaviours was available, and educators were trained in its use, it may guide educators to be attuned to communicative features such as responsive communication and enhance student practice and marks. This presents another area for future study.

To summarise, the scoping review highlighted that communication is used to gather information, make a diagnosis, plan treatment, build rapport and demonstrate empathy. Effective communication supports this by managing the interactions and enabling a cohesive assessment. In naturally-occuring practice, students receive scant feedback about communication skills unless it is required on the assessement form; this is despite educators demonstrating a good grasp of communicative features. Educators value confident communicators who can use both verbal and non-verbal communication skills to build positive rapport and demonstrate interest in the patient and communicate in a way the patient can understand. Although educators value students who are responsive to patients, little detail was provided about what they should respond to and and how they need to be responsive.

Chapter Summary

This chapter explored and critiqued current literature about why communication is important in healthcare and examined current communication practices in physiotherapy. A scoping review of current literature examined how clinical educators and students conceptualise effective communication and identified current knowledge

gaps in the field. Further studies which examine student responsiveness and also examine how students need to adapt their communication for different situations are needed. This gap has informed the development of interview questions, and provided a rationale for the current study.

The next chapter introduces interpretive description, the methodology used in this study and details the methods used, including recruitment, data collection, and analysis. Details of how quality was ensured and ethical principles adhered to are also described.

Chapter Three: Methodology and Methods

Chapter Overview

The focus of this research which was to generate useful and practical insights into how clinical educators conceptualise effective communication in undergraduate New Zealand physiotherapy students, and this focus informed the methodological decisions. In this study I aimed to develop a nuanced description of how educators understand effective communication. Currently only a small body of research examines educators' perspectives of student communication practice and there is an identified need for a more detailed and nuanced description of communication practice for academics, educators, and students alike. This focus has informed the methodological decisions which are explained and justified in this chapter. This chapter also examines how academic rigour and quality were maintained and the ethical considerations that were addressed within the context of this research.

Methodology

Humanising aspects of healthcare are often concealed and personal and hence difficult to observe and describe (Todres et al., 2009). If these humanistic aspects are not studied and interpreted they remain elusive and are not included in academic curricula and clinical education (Morse, 2012). In the review of the literature, I found this to be true regarding interpersonal communication in physiotherapy. Although effective communication is a requirement of the Physiotherapy Board of New Zealand, what constitutes effective communication remains elusive. This challenges educators to make visible the concepts of effective communication to students and to assess and evaluate whether communication is effective. A qualitative study was chosen to understand the phenomenon of interest – clinical educators' conceptions of effective communication in final year physiotherapy students, in its specific setting in clinical education and more specifically, musculo-skeletal settings.

Epistemology

For this study I have opted to use a social constructionist approach (Berger and Luckman, 1967). Social constructionism places the origin of all knowledge in the social

context, acknowledging there may be multiple realities in any one context (Gergen, 2001) and that the way we experience everything is shaped by cultural, historical, and personal influences (Burr, 2015). Social constructionism asserts that knowledge can be obtained, but it is all partial or situated (Braun & Clarke, 2022). For instance, the knowledge clinical educators have about communication is likely to have been shaped by their personal values, their professional training, what they have learnt from their patients and students, and how they have made sense of these experiences. Their knowledge is likely to be constantly shifting and changing as they have new experiences and develop new perspectives (Braun & Clarke, 2022). Social order also influences how things are understood and is influenced by those in positions of authority (Berger & Luckman, 1967) who set the norms and standards (Burr, 2015). In physiotherapy, norms and standards are set by regulatory authorities such as the Physiotherapy Board of New Zealand and further enforced by training institutions, educators, and researchers.

Methodology

This research uses an interpretive description methodology as described by Thorne et al., 1997). Interpretive description was originally developed to understand clinically relevant phenomena within the nursing profession to generate useful and practical knowledge (Hunt, 2009; Thorne, Reimer Kirkham, et al., 2004) but has since been used in many other health disciplines, including physiotherapy (Forbes, 2017; Good, 2020). Interpretive description is an inductive research methodology that commences with searching the data for patterns and developing an explanation or theory (Thorne et al., 1997) and results in useable knowledge that can be applied back to practice. Context is considered important: phenomena are shaped by social, political, and ideological complexities (Thorne, 2016a), hence they must be studied in context. The research process is shaped by the perspectives of the researcher, existing literature and current theory.

My study was informed by theoretical scaffolding consisting of the existing literature, the training and values of the physiotherapy profession, and my personal professional background that I bring to the study, but the ‘scaffold’ was also intended to be challenged as the study progressed (Thorne, 2016b). My own perspective of

communication in physiotherapy, values understanding patients as people whose 'whole' lives are impacted by their injuries or conditions, not just the physical aspect. I have seen my role as a physiotherapist as trying to understand what is important to patients in treatment. This understanding has been socially constructed, built through interactions with my patients and colleagues, and shaped and informed by the physiotherapy profession. It has developed and changed from when I was a new graduate when I focused very much on trying to get a diagnosis and paid less attention to broader impacts of the condition on people's lives. More recently my experience as an educator further shaped my understandings of communication and I found it a challenge to explain broad concepts such as patient-centred communication to students and what the application looks like in practice, when students are all so different and come with varying degrees of communicative skill. These personal and professional constructions about effective communication form part of the scaffold for this study. New understandings are constantly forming through these interactions. The literature review has also formed part of the theoretical scaffold for this study as I read other work which has explored how clinical educators understand effective communication, how they went about their research, and any challenges they faced. For instance, I understood that there is a tension in practice and physiotherapists espouse a person-centred approach to care but are still very focused on the physical aspects of a patient's condition (Hiller et al., 2015), which shapes their communication to focus heavily on understanding pain, strength, and physical symptoms, which historically has been considered a strength of the physiotherapy profession.

Unlike some qualitative methods which require the researcher to set aside pre-conceptions, interpretive description recognises that the researcher brings their own observations and understanding from practice to the study (Thorne, 2016b) and the researcher's experiences are seen as valid contributions to the study. Interpretive description recognises that both the inquirer and the object of inquiry interact and influence one another (Lincoln & Guba, 1985). As I progressed with the study my understanding of communication was further shaped by the literature which then informed the development of research questions and eventually analysis of the data.

Design and methods

Overview of the Methods

The study participants were clinical educators who were interviewed using semi-structured interviews. The study used a 10-minute stimulus video of a student working with a patient as a trigger for participants to help them think about students they may have worked with (Transcript of the video found in Appendix L). Prior to the interviews all participants watched the video. The data for this study was gathered from two sources. Firstly, educators made notes while they watched the stimulus video; these notes were the first source of data and aimed to capture participants' initial responses to the student's communication. Secondly, data were subsequently gathered from interviews with each educator. Interviews were video recorded and transcribed verbatim. The transcripts from each interview were the second source of study data.

Participant Sampling

Purposive sampling was used to select participants who had experience in the phenomena of interest (Carpenter & Suto, 2008). Study participants were clinical educators recruited from around New Zealand who were currently supervising or had recently supervised (within the last four years) final year physiotherapy students. Recruitment of participants with links to Wintec/Te Pukenga, the newest physiotherapy school, was not viable as they did not yet have a cohort of final year students.

Inclusion Criteria

- Clinical educators working in musculoskeletal settings within District Health Board (DHB) (more recently renamed Te Whatu Ora) or private settings.
- Clinical educators currently supervising or have recently (within the last four years) supervised final year New Zealand physiotherapy students.

Exclusion Criteria

- Educators who work solely for the university and do not have a clinical caseload.
- Educators who work in the same DHB area where the student recruited for the stimulus video was on placement.

Rationale for Inclusion/Exclusion Criteria

Clinical educators who work in musculo-skeletal settings were recruited, as the musculo-skeletal setting has its own particular context. For instance, in private practice musculo-skeletal settings, patients can self-refer, so often arrive to see the physiotherapist without a diagnosis. This may change the emphasis of the assessment and treatment compared with hospital in-patient settings, for example, where patients are likely to already have a diagnosis. Hiller et al. (2015) found physiotherapists in private practice tended to focus on the physical aspects of the patient's condition: the type of pain, the location of pain, pins and needles, and any functional limitations. Musculo-skeletal settings also encompass both public and private services and so may give insight into some of the differences in communication practices which can be shaped by funding, business influences, and time pressures. Furthermore, musculo-skeletal injuries have a significant social cost for employers and claimants (Statistics NZ, 2021, August) and the influence of stakeholders such as Accident Compensation Corporation (ACC) impacts on the practice of physiotherapy in this setting and potentially on communication practices. Renumeration for physiotherapists in private practice is often based on the number of patients seen, therefore creating a pressure to see more patients within a limited time, which may result in less time to communicate. Only clinical educators with existing or recent experience (within the last four years) were selected to ensure that their communication experience was relatively current. Only clinical educators with dual roles as both clinicians and educators, in either private practice or DHBs, were included to ensure consistency of context; those who solely work for the university were excluded. To negate potential for conflict of interest between clinical educators who assess the student in the stimulus video, educators from the DHB, where the student was on placement, were excluded.

Sampling and Recruitment

Purposive sampling with maximal variation was used (Carpenter & Suto, 2008) to allow for recruitment of participants with a broad range of characteristics (Etikan et al., 2016; Merriam & Tisdell, 2015). I sought a diversity of clinical educators in terms of their workplaces, ethnic backgrounds, gender, the populations they work with, and years of experience, because I wanted to look at the phenomenon of interest from a

diverse range of perspectives. For instance, educators who work in hospital settings may have different experiences than those who work in private practice. Eight educators responded to the advertisements and one was not included as they did not meet the inclusion criteria. Seven participants were interviewed

I used an iterative data collection and analytical approach (Sergeant, 2012) and initially recruited one participant from my professional network and that of my supervisors. After some initial reflection on the data gathered from this first participant and analysis of the process, I later recruited more widely throughout New Zealand. The rationale for this choice was to use the initial data analysis to inform the future recruitment (Tracy, 2018). Taking time to reflect on the process and the interview questions allowed me the opportunity to make any adjustments in the early stages (Newcomer et al., 2015). Later, an advertisement (Appendix J) was circulated to all the Clinical Centre Leaders to forward to clinical educators in their area. These were senior physiotherapists who led and coordinated student placements and clinical educator allocation in each geographical area. Educators who were interested were asked to contact me directly. I screened each educator that contacted me by telephone to check that they met the eligibility criteria. If they met the eligibility criteria, they were then emailed a copy of the participant information sheet (Appendix I). Of eight people who made contact only one potential participant was not recruited as they did not work in a musculo-skeletal setting. All participants had over five years of clinical experience and fifty percent of participants had over ten years of clinical experience. Participants had a range of experience supervising students from one year to nine years. Thirty-three percent of the participants stated they worked with Māori people, thirty-three percent worked with Samoan people, thirty-three percent worked with Chinese and sixty-seven percent worked with Indian populations.

Data Collection Tools and Procedures

First, I recruited a 4th year student from Auckland University of Technology (AUT) and a patient from the AUT Integrated Health Clinic for the stimulus video, after seeking permission from Head of the Physiotherapy School at AUT. A video was filmed and edited to a 10-minute clip.

Participants were asked to watch the stimulus video 24 – 48 hours before their interview and make notes on a sheet provided (Appendix G) of their observations of the student's communication. Participants' notes were collected as the first source of data. Second, semi-structured interviews via tele-conference were undertaken soon after the video viewing to ensure that participants could recall the video more easily. Interviews were recorded and transcribed verbatim. Interpretive description supports using several means to collect data (i.e., participant observational notes and interview scripts) to generate a rich account of the phenomenon of interest (Thorne, 2016). The participants' notes captured their initial impressions of the student's communication before our discussions in the interview. Both data sources provided similar information but the unique advantage of the notes based on the video showed how differently each participant viewed the communication in same 10-minute clip. Semi-structured interviews aim to elicit participants personal experiences, beliefs and perspectives about the phenomenon of interest (Carruthers, 1990; DeJonckheere & Vaughn, 2019). The context-rich data obtained from semi-structured interviews could not be obtained by surveys or observation.

Development of the Interview Guide

I developed an interview guide (Appendix H) shaped by my current knowledge of the phenomenon and based on my theoretical scaffold (McIntosh & Morse, 2015), which included current literature. Questions were open-ended to allow participants to respond in their own words and elaborate as they wished, but could be followed up with probing questions (Bartholomew et al., 2000; DeJonckheere & Vaughn, 2019). Literature was used to inform my interview guide (Appendix H). For example, in the literature I found that being responsive and adapting to individual patients' needs and preferences was an important feature of communication (Haidet, 2007), yet could not find any study which explored clinical educators' understandings of how students adapted their communication to different patients. One study highlighted this as a need for future research (Woodward-Kron et al., 2012), which led me to develop some possible questions about the ability of students to adapt their communication in response to individual patients including different ethnicities. Some samples of questions are found below:

Sample of Questions

- When you look for effective communication, what key features would you be looking for?
- Can you think of any non-verbal features of effective communication you might look for?
- Can you think of a student who displayed poor communication skills? What stood out about that student?
- Can you think of a student who displayed average communication skills? What would that look like?
- Can you think of a student who showed outstanding communication skills? What did that look like?

The Physiotherapy Board of NZ says a physiotherapist should be able to adapt communication appropriately (Physiotherapy Board of Australia and New Zealand, 2015, Thresholds: Role 2; Communicator: 3.1F).

- What does this mean to you when working with students? Anything else?
- Can you tell me about an average final year student? Were they able to adapt their communication to the needs of the patient? In what ways?
- Have you had a student with poor ability to adapt his/her communication? What behaviours did they show?
- What behaviours might you see in a student who was good at adapting communication?

Data Analysis

Interpretive description does not have a defined or required analytic strategy and researchers must utilise analytic tools which align with their research question (Thorne, 2016). I chose to use reflexive thematic analysis (Braun & Clark, 2006). Reflexive thematic analysis provides a robust and clear framework for analysis whilst offering flexibility (Terry et al., 2017) and is a useful method for examining the perspectives of each participant (Braun & Clark, 2006) to find patterns and themes. Reflexive thematic analysis can also highlight both the similarities and the differences between responses and uncover unexpected findings (King, 2004). It aligns with

interpretive description because it favours an inductive approach to research starting with the data. In addition finding shared patterns and realities is at the core of interpretive description (Thompson Burdine et al., 2021). Thematic analysis was used to identify and construct themes from the data (Braun & Clark, 2006). Reflexive thematic analysis and interpretive description both rely on the reflexivity of the researcher (Thompson Burdine et al., 2021) to interpret aspects of the research and go beyond merely summarising what participants say.

The six-step approach outlined by Braun and Clark was used to analyse the data (Braun & Clark, 2006): familiarising oneself with the data, generating codes, constructing themes, reviewing potential themes, defining and naming themes, and producing the report. The initial phase of analysis was to become familiar with the data by reading and re-reading transcripts of interviews and notes educators made while watching the videos. I transcribed most of the interviews myself which enabled immersion in and familiarity with the data. The next phase was generating initial codes. Codes identify a feature of data which is of interest to the analyst and relevant to the research question, and can be semantic (descriptive) or latent (interpretive) (Terry & Kayes, 2020a). For example, some examples of codes are given in the table below and a few labelled semantic or latent to illustrate:

Table 4

Examples of Coding

Participant data	Code allocated
The occasional use of close ended questions could have been helpful if she wanted to nut down on things (P1)	Adaptive(latent)
She created the perception of listening well through her body language (P1)	Features of effective communication(semantic)
There was definitely some empathy which came through some of her facial features and some of what she was saying verbally (P1)	Empathy conveyed verbally and non-verbally(semantic)
There was the risk the patient took over the consultation (P1)	Control (latent)
There could have been more of that close ended questions to kinda get the patient a little more on track (P1)	Control
Responsive to the specific context and the patient a big thing (P1)	Adaptive
It is like there is some hierarchy of belief that they need to have this good knowledge base and then they need to have some technical skills and then some they need to have some human skills. And I even said it like that, whereas the reality is they just need to have all three of those (P3)	Tensions about priorities
So, umm we have some students probably can get a sense of where a person is in their lives and what kind of support, they have without it being awkward. The majority of students are pretty awkward about that. Even that question of like who is at home with you can come out sounding like does anyone love you? Laughs. It often sounds awkward and aggressive somehow (P3)	Limited ability to elicit social information

After coding each transcript, preliminary themes were created to reflect the most significant elements of the data which were relevant to my research question (Braun & Clarke, 2022). Initial themes were constructed and reviewed with my supervisors. This was an iterative and recursive process and we went back and forth many times. When reviewing the themes, we found some overlap and took time to clarify the scope and boundary of each theme. Despite this, there remains some area of overlap between subthemes under Theme two. Another moment in analysis that demonstrates a changing perspective was when I was focused on all the individual elements of the student's communication discussed by participants. Suddenly I saw the broader picture

and the huge differences in how educators evaluated communication based their understandings of how a physiotherapy interview should be structured. This highlighted to me the subjectivity involved in describing and evaluating communication. This led to a change in candidate themes and eventually recognition that this subjectivity is one element which makes communication complex. Once my supervisors and I agreed on the themes, they were finalised, defined, and named (Braun & Clarke, 2022) and sub-themes were formed. Lastly, the themes were written up which formed Chapter Four: Findings

Ensuring Quality

Quality of this study has been assured using the steps outlined by Thorne (2016c) for qualitative research. First, epistemological integrity was maintained by checking with my supervisors that there was congruence between my research question, the nature of knowledge generation, and the methodological choices made in the research process. Second, representative credibility (Thorne, 2016a) was ensured by making sure that the findings are consistent with the manner in which the phenomenon was studied. For instance, the study findings are reported in a manner consistent with the way the study was undertaken, which was by interviews. Findings were not claimed to be generalisable across all contexts as the sample was small and taken from a specific context. Third, analytic logic has been outlined (Thorne, 2016a) and the reader is given examples of how data was coded. Although data was utilised in the findings to give colour and insight, the interpreter lens goes beyond what the participants say (Thorne, Kirkham, et al., 2004) and findings are not summaries of topics. The process of how initial themes were constructed and then reviewed in conjunction with my supervisors in an iterative and recursive process has been outlined. Lastly in considering my interpretive authority as a researcher I recognise my influence in interpreting and reporting on the findings. My supervisors were involved at each stage and asked questions about interpretations and proposed themes, which led me to reconsider what participants were saying and go back to the data.

Ethical Considerations

Research involving human beings is underpinned by a respect for human beings and their experiences (Munhall, 1988) and needs careful consideration. For the formation

of the stimulus video the clinical educator at the clinic assisted with recruitment of a suitable patient to avoid coercion. The educator gave both the patient and the student the study information sheet (Appendix I) to consider. Once the patient and student agreed to participate, they were contacted by the researcher and given the opportunity to ask questions. Informed written consent was then gained by both the patient and the student. The privacy of the student and the patient who participated in the stimulus video was considered carefully. Student and patient anonymity were maintained by not sharing any names or details with educators or in the written thesis. To protect the student's access to future employment opportunities a disclaimer at the end of the video stated that the video did not reflect the student's capability as a student. The video of the student was stored on a secure video portal at AUT so it could not be downloaded to protect the patient and the student; participants were sent a link to access the video. During the consent process, the student in the stimulus video expressed concern that participation in the research could put her at risk for future work opportunities. Her clinical educator advised that she was selected as a student to participate in the study because she was very able and the student was comfortable with this explanation. Consideration was given to ensure that the patient would not be seen on the video in a state of undress. This was discussed with the student's clinical educator and a patient with a peripheral injury was deliberately chosen.

The participants for the study were given written information which explained the purpose of the research, potential risks and benefits, and that their participation was voluntary (Appendix I). Participants were made aware they could withdraw from the study if they changed their minds but were also made aware that this would be more difficult to do after the data had been analysed. Each participant received a detailed participant information sheet and was provided with several opportunities to ask questions about the study. Written consent was obtained for all participants.

After ensuring that educators met the eligibility criteria, they were supplied detailed written information in the participant information sheet (Appendix J) and given the opportunities to ask questions. Those who agreed to participate were then sent a consent form by email (Appendix E). Participants' names, phone numbers and emails

were collected and stored on the researcher's password protected computer, in keeping with professional and ethical requirements. After signing the consent form, participants were sent a demographic survey to complete. This provided information about the clinical educator's age and ethnicity, their workplace, geographical location, years of clinical experience, years of experience supervising students, and the population groups they worked with (See Appendix F). This was collected partly to ensure that participants met the criteria but also to assist with sampling for maximal diversity.

Participants were given numbers and not referred to by name in the storage and reporting of data. Coded interview transcripts were stored on a password-protected computer. All identifiable information was removed from the transcripts to reduce potential for patient identification (Kaiser, 2009). To optimise anonymity, no identifiable details such as clinic or hospital names were included. The confidentiality and privacy of participants was also considered in the transcription process and no identifying data was supplied to the transcriptionist, who also signed a confidentiality form.

Reporting the words of others requires consideration as participants could be identified by others or by themselves (Kaiser, 2009) based on identifiable traits. Any quotes from data were intentionally not linked to any person or place and in one instance of reporting participant data some details were changed to protect the anonymity of the participant. Demographic data of participants was summarised for the group rather than reported for individuals to reduce the risk of deductive identification.

Consideration of power relations aimed to reduce the impact of this dynamic. The researcher does not work as an educator associated with any of the Physiotherapy Schools, their students, or clinical environments in which clinical educators work. The two research supervisors are staff at AUT and teach on the Physiotherapy programme, but they did not conduct any of the interviews, or work directly with educators, thereby ensuring there was no power dynamic at play. Participants could have potentially felt like they were being examined. To minimise this, participants were advised that the researcher's purpose was to understand a phenomenon from

participants who had a wealth of experience. They were also advised it is not their individual views but the collective views of educators across the country that was being sought. The researcher also tried to put participants at ease by creating a warm, friendly and comfortable space for discussion. Participants were told they did not need to answer questions they did not wish to and could withdraw from the study at any time. Three free counselling sessions were available if participants expressed any discomfort or distress by participating in the study. Ethics approval was obtained from Auckland University of Technology Ethics Committee (AUTEC) on 31st May 2021 with the reference number 21/1 (Appendix A).

Chapter Summary

Research rationale, methodology, and methods have been outlined in this chapter, as were quality assurance and adherence to ethical principles. The next chapter will discuss the research findings and outline the two themes constructed from the data and their associated subthemes.

Chapter Four: Findings

Chapter Overview

This chapter presents the study findings and provides a detailed account of how clinical educators conceptualise effective communication in student-patient interactions. Seven clinical educators were interviewed. Four worked in musculoskeletal outpatient settings within government funded hospitals and three worked in private practice clinics in which patients either fully pay for treatment, or treatment is part funded by ACC in addition to a co-payment by patients. The educators were recruited from both North and South Islands in New Zealand (Demographic data summarised in Appendix F).

Two themes are presented and their associated subthemes. The first theme constructed from the data is '*The complex nature of communication'*. This theme highlights the challenges to agree upon, define, and make visible to students what effective communication is. The reason for this complexity is examined in the four sub themes: communication is subjective and deeply personal, communication requires continuous adaption, communication lacks visibility, and communication is not a stand-alone skill but needs to be integrated with technical knowledge and skills.

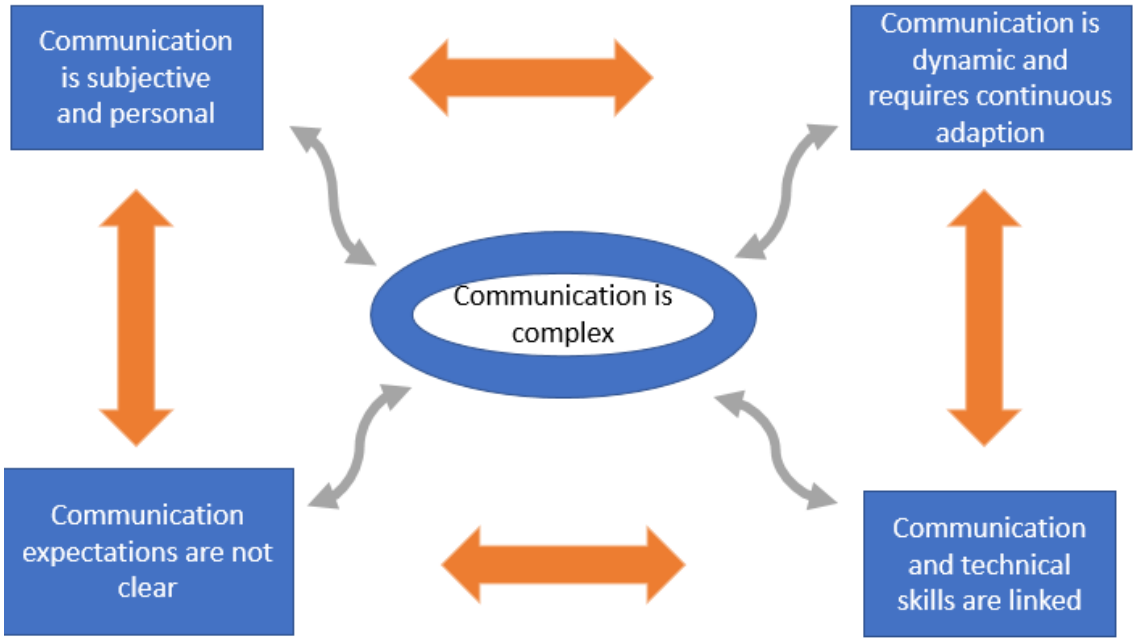
The second theme '*Competing priorities wrestle for a place'* in physiotherapy practice highlights the way underlying practice approaches hugely shape and influence the way communication is practiced. These priorities are shaped by the profession itself as well as the individual values of clinical educators. Tensions in practice approaches and tension over what skills are prioritised are further examined as the two subthemes: tensions between practice approaches and a hierarchy of skills.

Theme One: The Complex Nature of Communication

The following diagram illustrates an overview of this first theme.

Figure 2

Theme one: The complex nature of communication



The first theme '*The complex nature of communication'* illuminates the highly complex nature of effective communication in physiotherapy practice and the associated challenge for clinical educators to agree upon, define, and make visible key concepts of communication to students both in clinical interactions and in assessments. What is clear is that there is no universal agreement on what constitutes effective communication. Clinical educators have differing perspectives on what constitutes effective communication and place varying priorities on particular aspects of communication, based on what they personally consider important in practice. As a result, individual clinical educators appeared to have their own expectations of students. Educators also described the need for students to be able to continuously adapt their communication approach to the needs of the patient and the variety of clinical situations they find. Educators had little understanding of what students had already learnt about communication in their university programmes, which makes continuity of skill development unlikely. Lastly participants also suggested that communication cannot be segregated from technical skills and knowledge if

communication is to be effective, and analysis indicated that communication requires higher order skills from students for integrating both technical knowledge and communication in practice simultaneously. All the above indicate that communication appears to be highly complex.

Four subthemes were constructed within theme one from the data:

1. communication is subjective and deeply personal.
2. communication is dynamic and requires continuous adaption.
3. communication expectations are not clear.
4. communication and technical skills are linked.

Sub-Theme One: Communication is Subjective and Deeply Personal

Clinical educators provide varying descriptions of student communication and appeared to interpret the quality of communication differently based on what they consider important in physiotherapy practice and their own personal values, which will be further discussed under theme two. The diversity of understanding about communication was evident when each participant reflected on the same ten-minute stimulus video (Transcript found in Appendix L): one point of agreement amongst educators arose and three points of differing opinions became evident. Educators had consistent views on the student's non-verbal communication they observed. For instance, all participants commented positively on the student's non-verbal communication which she used to demonstrate attentive listening. They observed and commented on the student's "good eye contact" (P1, P5, P6, P7), the way she "leaned forwards" (P1); she "mirrored the patient's body posture" (P2, P5) and "nodded to clarify understanding" (P1); her "empathy was demonstrated by her facial expression" (P1; and that "she didn't wiggle too much…so looked really attentive" (P3) and "the way she let the patient tell her story without interruption" (P3), and was "engaged" throughout (P6). However, there were also many inconsistencies and contradictions in what educators noticed. The first contradiction was regarding the notion of control of the session. Several participants felt that the student needed to "take control" (P1, P2, P5, P6) and "get back to the agenda" (P6) and was "at risk of not getting enough information" (P6). One educator commented that the student "allowed herself to be spoken over the top of" (P5) and "missed opportunities to signpost and recap and get

back to the questions she wanted answered" (P5). This view contradicted the views of another educator who commented that the student "never lost control of the interview" (P3) but was able to "let the patient talk and keep up with it" (P3). This suggests that the student knew exactly what she was looking for and was not dependent on following a template. A second contradiction was in relation to what educators described as the student's patient-centred approach. Some educators appreciated the student's patient-centred approach (P2, P3) whereas others felt that it was "too patient-centred" (P1), needed to be more "balanced" (P1) or more "therapist-centred" (P1). Educators wanted students to "get back to the agenda" (P6) and find out some more information (P2, P6, P5, P7). Lastly, there were points of contradiction in relation to the structure the student used in the video session. One educator was impressed that the student didn't impose a structure on the patient (P3), "used really open-ended questions" (P5), and "gathered information as she listened" (P3), whereas another educator wanted to scaffold the student's learning and provide feedback by helping her use a more structured approach to information gathering (P2, P6). Three educators felt that open ended questions were appropriate at the start but that the student should have returned to the questions she wanted answered (P1, P5, P6) and "nut down on things" (P1). These responses suggest that a balanced approached is valued; balancing understanding the patient story with also ensuring that the information the therapist needs is gathered. These three contradictions in response to a single 10-minute student video highlights the absence of shared understandings of what constitutes effective communication in physiotherapy practice amongst the participant educators.

Instead, there is a very real element of subjectivity involved in evaluating the student's communication skills. One educator talked about her own personal values and preferences which shape her understanding of communication. For example, she explained she has a personal preference to "err on the side of letting the patient talk" (P3) but "if you watch an orthopaedic surgeon they tend to "err on the side of cutting people off" (P3). Another educator acknowledged there are many different ways to do things "Otago has a framework, AUT has a framework" (P6) and they "are all a bit different" (P6). Both of these educators had an awareness of trying not to "impress my [the educator's] framework" (P6) on the students but letting them operate within a

range because “who is to say my way is the right way and just because I think you could have shut that patient up a while ago, doesn’t mean it is the only way and doesn’t mean I am right” (P3). These different perspectives on what constitutes effective communication highlight there is not one shared understanding amongst educators and even suggest that a range of approaches may all constitute effective communication.

Educators suggested that becoming an effective communicator takes time, exposure to a wide variety of people (P2, P7), and years of clinical experience for responsive communication to evolve (P7). Educators did not, however, expect advanced communicative skills to be fully developed in undergraduate students. Participants described communication skills in students on a continuum from rudimentary to more advanced. They indicated that students arrive on placement with a wide range of communicative skill levels (P2, P3, P6, P7). Less able communicators were described as “nervous” (P2), “shy” (P5), “struggle[ing] to get past yes/no questions”(P5), “lacking in rapport” (P2), “not paying attention” (P6), “awkward” (P1), robotic” (P3), and having a “lack of awareness of their environment” (P1). Less effective communicators were also described as “over-communicators who just talk, and talk and talk and talk” (P7) who “would ask a question and then offer all the information they knew about the answer” (P7), or whose communication was “casual and often too buddy-buddy” (P3). Further comments indicated that less able communicators “are too busy in their minds” (P4) and forget to explain to the patient what they are doing. In contrast, communicators further along the continuum were described by educators as “good at listening” (P7), “set[ting] expectations from the start” (P1), responsive to patients (P1, P2, P6), “relaxed and friendly” (P1, P2), and using a “conversational tone” (P1). Commonly students described as having more advanced skills at the start of a placement had been exposed to a wide variety of people and a variety of life experiences (P2, P6, P7). One educator described a student with advanced communication skills as someone who:

> played a lot of high-level sport so she was playing with a lot of adults as a teenager. She was also from a family of nurses who were good at talking … She had also spent the last three university holidays working on reception at a

> medical clinic where I think you do just hear those conversations and you have to have conversations with people, so yeah, I think it is just that contact with a wide variety of the population (P7).
>
> *Some details changed to protect student identity*

Educators described other similar students with broad life experiences who presented with what they considered were more advanced communication skills. Yet, educators themselves who had worked for five to twenty years in clinical practice considered themselves to still be developing communication skills (See Appendix F for demographic data). This suggests that the development of effective communication continues well after graduation. One educator who had over twenty years of physiotherapy practice described the following experience:

> Twenty years in and it still happened to me and this kid sat down, well he is not a kid he is 29 years old, and he came in with his interpreter, his mother and his carer, and I said 'How can I help?' I don't know. What's wrong? 'I don't know. Nothing. Do you have any pain anywhere? Nope, and I was sitting there going ok, what do I do next? So, it was really hard and I can't imagine how hard that would be for a student because it threw me, and I am twenty years in and I like to think communication is one of my skills (P7).

Educators describe variable levels of communicative skill amongst final year students. Data suggests that educators observed a student's communication skills at the start of a placement and then decided how to scaffold the student as a unique individual with their own style and personality so they can develop the next steps to becoming effective communicators (P3, P7). For example, one educator expressed that she felt the student in the video disclosed too much about herself and while she may not "have necessarily called her up the first time, I might see if this is a common trend" (P3). Another educator described students who were struggling to build rapport and she would try and "get a sense of why they haven't got the rapport" (P2) and if it was because of nerves, she would step out of the room to give them space. This wide range of communication skill described by clinical educators suggests that facilitating learning in clinical practice is likely to be very individual and variable depending on the

students' starting skills, and the educator's skills in identifying student need and facilitating learning.

Sub-Theme Two: Communication is Dynamic and Requires Continuous Adaption

Participants discussed one important element of effective communication as the need to be dynamic, flexible, and able to "shift gears seamlessly" (P1) in response to how patients present and their communication needs. However, expectations of adaptability and responsiveness seemed ill defined, and somewhat nebulous. Students work in diverse clinical situations and have to make in the moment decisions about *what* and *how* to adapt. For instance, this could simply involve adapting language from the use of "clavicle" (P4) to a lay person's term "collar bone" (P4) or adapting instructions when a person doesn't understand. For example, "I want you to relax" (P6) could then be expressed as "let go" (P6) or "let the weight go and let it go loose and heavy in my arm" (P6). Adaptation might mean having "cognitive flexibility" (P3) to adapt the treatment plan when needed or noticing the need to adapt the physical environment (P1, P3). Adaptation was considered important for responding to what a patient expressed, to manage interactions, and to control the sessions (P2, P3, P5, P6).

Participants perceived that the ability of the average student to adapt was not very "natural" (P3) and often seemed "forced" (P1), "a little bit contrived" (P1) or "abrupt" (P1), and was not a "seamless sort of shifting" (P1). Despite participants valuing students being dynamic and adaptable, they did not give any examples of how they talked about this aspect of communication with their students. For instance, working with an interpreter is one situation where students need to adapt their communication approach. One participant said that she often sees "communication fall apart quite quickly when students just start to talk to the interpreter" (P3) and not the patient. She instructs her students after the session: "Talk to the patient. Don't just talk to the interpreter. The patient is who you look at and make eye contact with even if they don't understand your language" (P3). An example of an educator's reaction to a student's lack of appropriate responsiveness to a patient and their story is highlighted below. In this instance the participant stopped and modelled how she expected the student to respond.

> I can think of one example of a student I was with in a session. She was doing the subjective. The patient said my husband just died last week. The student said 'Oh, ok, so your hip pain is??' … So, I *modelled* it at that moment, I just reached out and put my hand on the patients knee really probably more to stop the student from talking, oh God stop, please stop, without saying anything to the student, so, I put my hand on the patient's knee and I put my own hand on my chest innately and said I am so sorry to hear that. This is obviously a really tough time. Do you want to keep going with this session or would you like to just reschedule for a few weeks out and come back at a time when it matters more to you? And the patient immediately started crying (P 3).

This quote indicates that educators can recognise when a student fails to respond appropriately and model what they would expect. However, there was little evidence in the data of how participants prepared students in advance for a wide variety of clinical scenarios they may encounter but this was not explored further in the interviews.

Adaption was also seen as important for controlling and managing the interactions, and appeared to be valued by educators as integral to effective communication. Control was considered necessary to keep the patient "on the right track" (P1) or to "drive the agenda" (P6). The agenda seemed to be something that was set by the students and therapists, and not the patients. Listening to the patient story was valued to a point, but participants expected students to have enough control to "navigate back to the agenda" (P6), which was to have "clarification of our provisional diagnosis" (P6). Participants described ways students could take back control. For instance, students could "set the expectations from the outset" (P1) or "politely cut the patient off" (P3) and "curb someone in" (P3) with "closed ended questions" (P1, P2). They could "recap" (P2) to show the person they had heard and understood and then move on. One educator described coaching students "to be able to use the right amount of force so as not to break rapport" (P3) and with "enough kindness" (P3). Participants expected students to make judgements about controlling the session in the moment within an interaction, highlighting their expectation that students can be adaptable in their communication.

Participants also expected students to adapt and be responsive to the physical environment in which physiotherapy takes place. The context and environment in which physiotherapy takes place was described by educators as contributing to effective communication and the development of a therapeutic relationship. For instance, one educator (P1) stated that the environment itself conveys messages to patients. He described physiotherapy uniforms as being "quite sporty attire" (P1) and the patient gym having "posters of fit able-bodied people on the walls" (P1). He reported that many of the patients haven't been in a gym ever or for many years and this type of environment can be quite intimidating. Interestingly, these above-mentioned environmental aspects deemed important to educators are ones that students have no control over such as their uniform or posters on the wall. Educators also expected students to adapt their physical position in the clinical room to minimise power dynamics. For instance, "if a student is sitting on a plinth higher than the patient it conveys messages" (P1) or if students "sit directly across from the person it can be a bit confrontational" (P2). One educator argued it was the responsibility of students to organise the set-up of the room and arrange chairs to optimise communication. She explained a conversation she had with a student:

> Look you lost control of that session the moment it happened because you did not put the interpreter in the right chair and then the interpreter and the patient are facing each other and the patient never looked at you the entire session and that was your fault because you put the interpreter in the wrong place. You know it's about controlling the initial environment. Similarly, when family members come in, like if the child is going to be wiggly, they need a chair of their own and if there are not enough chairs you need to go and get them one otherwise the child is rolling around on the table or rolling around on the floor (P3).

When students lost control, educators reacted to this loss of control after it occurred and provided feedback to the student. Education about control appeared to be more reactive then proactive.

Beyond adaptability to the client and what comes up in the moment, participants also described the need to adapt and shift between communication approaches. One

educator (P1) talked of “patient-centred” and ”therapist-centred” communication. “Patient-centred” communication was described as letting the patient tell their story (P1, P2) whilst “therapist- centred” communication was described as using closed questions to “nut down on things” (P1) and “get the information you need” (P2, P6). Several participants (P1, P2, P5,) viewed both patient-centred and therapist centred communication as important in interactions but considered that neither should be exclusively used. What is highlighted in this analysis is that educators value the ability to move between models of communication.

Participants also highlighted the importance of students adapting their communication from the style of a student to that of a health professional, including demonstrating professional body communication (P1, P6), and appropriate language (P3) and behaviours (P3, P6). Educators described professional communication in terms of both verbal and non-verbal communication. They described a need for students to have an awareness of their body communication and what that conveyed to patients. For instance, one educator described some female students as “tucking their legs up under them while interviewing a patient as if they were at home watching a movie” (P1). This educator felt that the position adopted by the student suggested that they did not have an awareness of the impression portrayed to the patient or that it was not appropriate in the clinical environment. Being on their phones rather than giving the patient attention was also frowned upon by another educator (P6). A further example of verbal communication that was considered unprofessional was, for example, male students using friendship or “mate ship” (P3) as a means to build rapport with clients (P3). One participant provided the following example;

> I can think of a male student that we had calling people in their seventies you know mate and bro and you know making jokes with them about their wives. They might enjoy this interaction but it doesn’t make it appropriate, I think. But he (the student) was like the patient is laughing, the patient is joking back, so (he thought) what I am doing is working. I am like but how are you establishing yourself? What is your role here? (P3).

To summarise, clinical educators emphasised the need for communication to be adaptive and responsive not only to the unique and individual preferences and

presentations of patients, but to move between approaches to communication seamlessly. In addition, they need to adapt from being students to demonstrating professional communication and behaviour, and be able to use communication to control sessions and control the environment in which physiotherapy takes place. There was no evidence that participants proactively discussed communication adaptions with students; instead, these appeared to occur in response to what participants considered communication breakdowns or a breach of unspoken communication expectations.

Sub-Theme Three: Communication Expectations are not Explicitly Clear to Educators or Students.

Expectations are not made explicitly clear in two ways: expectations between universities and clinical educators did not appear to be passed down, and between educators and students there was little evidence of expectations being made clear in advance of consultations. Participants expressed a disconnect between the universities and themselves which results in educators not being clear about what students have already learnt about communication and what students should be achieving. One educator reported "not knowing what sort of communication training they [students] get as undergrads" (P1). This suggests it may be hard for educators to build on foundations laid in lectures about communication when they don't know what these foundations are. Communication about communication appeared to be lacking. One participant expressed how helpful it was to have the support of a clinical tutor on one placement who could "put things in an integrated context and say this is what the expectations are" (P6). Expectations about what communication skills students were expected to display by the end of placements was not explicit in assessment criteria either. The Advanced Physiotherapy Practice (APP) assessment tool is used to assess students on placement, and interfaces between the universities and the educators. One participant described the APP as providing minimal direction and clarity;

> I generally find with those 0-4 marking systems you lose a lot in that nuance especially when you only have two points. *Effective* and *appropriate* and that is basically it, and the other one is writing good notes. They even include verbal and non-verbal in the same category (P5).

Some participants considered the APP tool to contain insufficient detail about communication practice to guide educators or students about expectations regarding communication skills, whilst others felt it was adequate if they used the accompanying guide (see Appendix C for APP form and guide). In relation to the perceived lack of communication from the universities about what students have already learnt regarding communication and somewhat unclear criteria on which to mark students in the APP tool, one educator reported "there is no educational support" for them as educators (P6). One educator struggling with university and assessment expectations, valued the support of a clinical tutor from the university stating;

> That last placement where we had a clinical tutor was good for both the student and myself and I think that alone made a big difference. I think it is just the clarity, because the clinical tutor had an understanding about the expectations of the university and was able to put things into an integrated context, and this is what the expectations are. They were able to remove themselves from the clinical pressure that I feel under (P6).

This disconnect and lack of communication about what students' have already learnt about communication and what they are expected to do, in addition to the lack of detail on the APP tool and guidance regarding assessment criteria, contribute to the lack of explicitly clear expectations regarding communication which could potentially leave students feeling uninformed about expectations.

Sub-Theme Four: Communication and Technical Skills are Linked

Educators highlighted the interrelationship between communication skills and technical knowledge and skills, including an understanding of anatomy, physiology and pathology and common conditions. This appeared to be because they saw the function of communication as gathering information needed to make a diagnosis. Participants expressed students need to be able to adapt their questions and responses to patients accordingly to gather the "right" and "relevant**"** (P1, P2, P4, P6**)** information. Information appeared to be right and relevant if it helped to formulate a diagnosis. One educator suggested that students do not always know "what the information will tell them" (P3). Educators suggest that participants expect students to use their technical knowledge and skills to guide their formation of questions so they gather the

right and relevant information. When students were unable to use knowledge and technical skills to select appropriate questions, they ran through a list of questions instead, using a linear, non-responsive “tick box approach” (P1) to gathering information, which was evaluated as less effective communication. One educator described it as follows;

> Some of the things I see in particular with students is they tend to be very …. therapist dominant so they sort of ask very closed ended questions and they kinda extract all that technical information …. but it’s very much like a tick box exercise and I think the patient senses that they’re just asking questions that don’t really have any relevance or meaning (P1).

In addition, clinical educators perceived that there was a tendency to silo information and “box off other learning from all the information” (P3) rather than integrate all they know. Not being able to combine both technical skills and appropriate questioning skill to reach a diagnosis was considered a risk by one educator (P1).

Theme Two: Competing Priorities Wrestle for Their Place

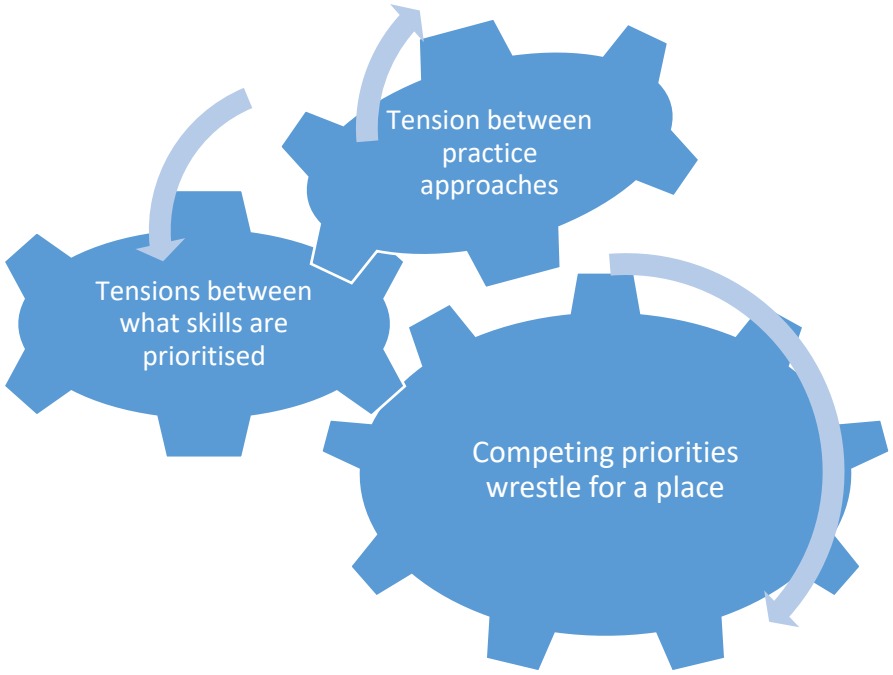
The second theme examines two practice priorities identified in the data which relate to broader practice issues but which shape student communication. The first tension identified in the data was between two approaches to practice: one approach that prioritised understanding the person and their story, which appeared to be in tension with an approach that prioritised information the physiotherapy student needed to make a diagnosis.

The second tension, closely related to the tension described above was between the communication skills required to enact each of the contrasting approaches. The data suggests a vertical hierarchy of skills required by students, whereby getting a diagnosis, and the associated skills to do so, appeared to be valued more highly, compared to the relational skills for eliciting the patient’s perspective, which were positioned lower down on the hierarchy. Although there is some overlap in these two tensions, they have been discussed separately for clarity. Each of these tensions shapes how communication is enacted in practice in some way. For instance, if reaching a diagnosis is the priority, questions are about pain intensity and what aggravates and eases the

pain will be more prevalent. Figure 3 illustrates the second theme *Competing priorities wrestle for a place*.

Figure 3

Theme 2: Competing Priorities Wrestle for a Place



Sub-Theme One: Tensions between practice approaches

Participants *all* valued what one educator described as a person-centred approach (P1). However, this approach appears to have different meanings for different participants. All participants valued students who could listen to the person and let them tell their story without interruption. This was described differently by educators. One educator described it as “person-centred care” (P1). Another talked about “immersing yourself in the patient and their story” (P6), whilst another talked about “creating and holding the space” (P3) for the person, which to them meant “creating a safe envelope around the patient sharing what they needed to share so they are not stopped or hemmed in” (P3). Data highlights that this approach of listening to a patient without interruption could be enacted by “not bombarding a person with a list of closed questions that may indicate that you are rushing them through a process” (P3), but rather considering “pace” (P3) and “frequency” (P2) of questions. It could also be enacted by “sitting still and not jiggling which conveys to patients, I have time for you” (P3), or through “leaning forwards” (P1), making eye contact (P1, P4, P5, P6.P7) and

"nodding" (P1), not being too focused on their notes (P4, P5), and "being focused on the person and not their devices" (P6). Letting a person feel listened to was described as therapeutic and was said to be "just as important as techniques done to them" (P5). Consistent across all participants was a shared value of giving attention to the patient and their story.

This approach which valued a commitment to the patient's story resembles aspects of person-centred communication. However, other aspects of person-centred communication described in the literature (Jesus et al., 2021), such as a holistic approach to understanding the patient, were less well represented in the data. The Physiotherapy Board of Australia and New Zealand (2015) describes a holistic approach to physiotherapy in the Practice Thresholds (Physiotherapy Board of Australia and New Zealand, 2015). There appeared to be varying amounts of focus on facilitating a more holistic approach to patients with students. In the data, only two educators described facilitating such a holistic approach to patient care with their students. One educator considered it important that students understood the "biopsychosocial stuff" (P7) and expressed that it needed to be tied in with every aspect of their undergraduate degree: it "makes the biggest difference in communication and is the biggest weakness of students" (P7). This participant deemed it important that students could "recognise that biomedical conditions exist within the context of a person" (P7) because the "biomedical condition doesn't necessarily have the same effects if it was happening to another person" (P7). This suggests that if a holistic approach is not used, assumptions could be made about the person's experiences. Another educator (P3) explained how "awkward the social questions" (P3) appear to be for students and that they often just leave them out, perhaps not appreciating what the information will tell them or not seeing them as relevant. However, considering the data as a whole, educators placed little emphasis on using questions to understand the biopsychosocial aspects with students, tending to focus more on the physical aspects of a person's condition, which is more aligned with a biomedical approach (Engel, 1980), and on supporting students to prioritise reaching a diagnosis. Educators suggested that students are more comfortable focusing on the physical aspects of a person's condition. One participant (P3) described this conversation with a student:

> Have they [the patient] got anyone else with them at home? I don't know. Are they working? I don't know. Do you know anything about their home life? No, but they have a shoulder problem that's what I know about (P3).

This conversation demonstrates that this educator wanted a more holistic assessment rather than the narrower approach focusing on the physical aspects demonstrated by the student. Another participant described another tension where he felt that the student was giving too much freedom to the patient and she needed to get back on track. He described the following when talking about the student in the video:

> ...she was letting the patient tell her story which was good but I would say it is something I would personally be very wary of… we always want to hear someone's story **but** we need to be careful we don't get led down a rabbit hole ummm you know we have an agenda (P6).

The agenda this participant referred to was reaching a provisional diagnosis. Later this same participant said:

> At the end of the day if you are attentive and if you are involved and engaged in the person sitting in front of you that will carry a lot more weight, or dare I say it mana, than your ability to manipulate or dry needle or myofascialitise or whatever, it is your attention to the person, to their story and everything you do should reflect your understanding of that story (P6).

In the first quote, the participant suggests listening to a person was good, but not at the expense of navigating back to the therapist's agenda. In the second quote this participant suggests that being attentive to the patient and their story is more important than the physiotherapy techniques, which reflects this pull between different approaches, evident even within one participant.

Another participant described a tension between what was important to them as a physiotherapist versus what was important to patients as follows;

> Not everything a patient tells you is relevant to what you can do, and although to tell you the truth it is probably important to them [patients]…(P6).

This participant highlighted a tension between what is relevant information for the therapist's focus and that which may not be relevant to the therapist but is likely to be important to the person. It appeared that this participant realised as he was speaking that he may have sounded dismissive of what a patient shared. Again, this suggests a further tension in practice which influences communication.

Sub-theme two: Tensions between what skills are prioritised?

Despite all educators suggesting valuing an approach which focused on understanding the patient story, educators described making a diagnosis as a priority over getting to know the person and what their condition meant them. Educators all indicated that they supported students to work systematically towards reaching a diagnosis by starting with the subjective assessment, moving to the objective assessment, and then using clinical reasoning to reach a diagnosis. Communication was seen to be important to facilitate the overarching aim of reaching a diagnosis by asking the right questions and keeping the person on the right "track" (P1, P2, P4, P6, P7) toward reaching a diagnosis. Not asking the right questions and gathering the relevant information was seen to compromise the diagnosis and could lead to the wrong treatment, which was perceived as a risk for patients. Accordingly, being able to gather the right and the relevant information was seen to be a sign of an effective communicator. Not reaching a diagnosis was seen to put students in a "tricky spot" (P4), as students needed to be able to justify to patients and possibly educators, why they could not reach a diagnosis (P4). One educator described this overarching emphasis on reaching a diagnosis as:

> We always want to hear someone's story **but** we need to be careful we don't get led down a rabbit hole. You know we have an agenda. We try and navigate back to that agenda because obviously the outcome is we want to have clarification of our provisional diagnosis (P6).

Another educator explained the hierarchy in priorities as:

> So, if they [students] are a bit robotic and cold and awkward in the beginning, ok fine, cool, let's just ignore all of that weirdness, did you get enough information to come up with a differential diagnosis? (P3).

These quotes suggest that the diagnosis is prioritised; the person's story and building a relationship are important but *not* at the expense of reaching a diagnosis.

Questioning skills appeared to be predominantly focused on gathering information about a patient's physical symptoms, with less emphasis on understanding their social situation and even less on understanding their psychological wellbeing. Participants talked about physical-focused questioning lines such as: "what kind of things aggravate your back?" (P4), the "pain scale, aggravating factors and easing factors, general health questions" (P6), or the "nature, irritability, reproducibility…." (P6) of the patients' symptoms. Participants recognised that students were not comfortable trying to understand a patient's social situation and educators reported that these questions either appeared "awkward" (P3) or they were "just left off" (P3), and there were no examples in the data of questions used to understand a patient's psychological well-being.

Even within the diagnostic process, there appeared to be a hierarchy of skills to master. Despite participants suggesting an approach which valued the patient story, relational skills required to get to know the patient and to elicit a patient's perspective of their injury were less valued and positioned lower on the hierarchy. Participants proposed that understanding a patient's perspective was prioritised less when scaffolding student learning: Diagnosis is the first priority and then the person. One participant appeared to recognise a discrepancy between what she really believed and what she had been taught.

> They [students] need to have this good knowledge base, then they need to have some technical skills and then they need to have human skills. And I even said it like that whereas the reality is they just need to have all three of those. It is more like three overlapping circles rather than this hierarchy but I think it is taught as a hierarchy (P3).

This educator realised that she was prioritising the diagnostic and technical aspects of care as somehow superior over the communication skills required to build a relationship and understand the patient's perspective of their injury, and yet this was not her personal belief. This participant (P3) explained that she had been taught this

way. These competing and somewhat paradoxical approaches to physiotherapy practice were evident amongst all the participants interviewed. While all educators promoted putting a patient at the centre of care, in practice, reaching a diagnosis was prioritised more highly.

Summary of Chapter

The findings have provided a detailed conceptualisation of effective communication as perceived by clinical educators. It was clear there was no universal understanding of effective communication. All educators valued students who could immerse themselves in the patient story to begin with but many felt they also needed to balance this with maintaining control and ensuring that they reached a diagnosis. Educators viewed communication as dynamic and requiring the student to be constantly adapting to the patient's presentation. Expectations about communication are not explicitly clear either between the universities and clinical educators or in the assessment criteria used to evaluate student communication Lastly, communication skills cannot be separated from technical skills as they are interrelated and require students to integrate both knowledge about communication with technical knowledge of anatomy, physiology, pathology and various conditions. All of these above factors contribute to communication being complex. The second theme highlights several tensions which relate to broader practice approaches which shape communication. Firstly, there was a tension between an approach which focused on the patient and their story versus a focus on what the physiotherapist needs to make a diagnosis. There was also a tension between a predominant focus on the physical aspects of a person's condition versus trying to understand the person holistically by considering their social and psychological wellbeing as well as their physical presentation. The other related tension was an apparent hierarchy of skills whereby reaching a diagnosis was considered the most important skill and the relational skills to elicit a patient's perspective of their condition was lower on the hierarchy.

The next chapter will contextualise the key findings discussed above in relation to current evidence and discusses the significance of these findings.

Chapter Five: Discussion

Chapter Overview

The primary objective of this study was to understand how clinical educators conceptualise effective communication in final year physiotherapy students in Aotearoa New Zealand. The literature was first explored and a detailed literature review was undertaken. Effective communication was then examined through semi-structured interviews. Key findings were subsequently explored in chapter four and two themes constructed. In this chapter the literature and study findings are discussed together and what contributions this research adds to our current understandings of how clinical educators conceptualise effective communication. Finally, the strengths and limitations of this study are discussed together with implications for practice and future research.

In the previous chapter the findings of the study were presented through two constructed themes. Communication appeared to be complex and the emphasis on communication in practice appeared to be shaped by underlying practice models which differed from educator to educator. This chapter discusses how clinical educators conceptualise effective communication based on the findings.

How Educators in This Study Conceptualised Communication

For clinical educators an important function of communication was the need to create space for the patient so they could unfold their story. This was considered to be important at the start of physiotherapy encounters. Educators emphasised that it was important for communication to be responsive to the presentation and communication needs of patients. The function of communication was perceived as facilitating the gathering of information to enable students to reach a diagnosis and also to assist with treatment planning and delivery. However, it also appeared to be a challenge for educators to support such communication, with subsequent implications for practice. Two important aspects of these communication conceptualisations are further expanded on in the following section.

Communication as a Dance

Clinical educators understood communication to be like a dance that occurred between the students and their patients. They described an interplay which had multiple levels. Some levels appeared to be easy for students to achieve, while others required advanced communicative skills and were unlikely to be achieved in undergraduate students but more pertinent to post-graduate physiotherapists. There were three key features of this dynamic dance. Firstly, students need to change their communicative 'moves' in response to the person in front of them. 'Moves' could include the language they used, the pace of the session, the type of questions they asked, and even the physical set up of the room. A second feature of this dynamic dance was who was in control of the dance. Educators valued students who had the agility to move between an approach where the patient led the dance, particularly at the start of the session, to one where the student directed the dance. There were differing opinions about the amount of control each person should have. A third feature of this dynamic dance was the emotional connection built between the student and their patient. These three key features relating to communication as a dance will be further discussed in the next section.

Adapting 'Moves' to the Person in Front of Them

Both verbal communication and body communication were seen as needing to be 'on the move' and continuously changing, and required a student to read the clinical situation, make a judgement in the moment, and then adapt their communication as necessary. Threshold competency 3.1 D established by the Physiotherapy Board of New Zealand (Physiotherapy Board of Australia and New Zealand, 2015, Threshold competence 3.1D) states that students must be able to adapt their communication as appropriate for the situation or context. Educators' views are consistent with this threshold competence and their views extend the ways in which students may need to consider adapting their communication. Verheijden et al. (2022) in a study of trainee general practitioners in the Netherlands also considered being sensitive to both the needs and experiences of a patient and being able to adjust both verbal and non-verbal communication accordingly as traits of an effective communicator. It was clear that interactions between students and patients were often unique. The uniqueness of

each interaction depends on how both the patient and the student construct the content and the context of the encounter (White & Danis, 2013). This suggests that such interactions cannot be reduced to a set of rules about the right thing to do or say. Perhaps this is why Salmon and Young (2011) argue that in medical training there should be an emphasis on developing skilled communicators, rather than simply teaching communication skills. Skilled communicators can negotiate unique situations, make sound judgements, and develop their own personal style (Salmon & Young, 2011).

Taking Turns at Leading

Like a dance where each person has a turn to lead the other, educators wanted students to be able to move between letting a patient tell their story at the start of a session, but then gently taking back control of the session to gather the information they needed. A range of views were presented. Some educators were more comfortable with letting the patient lead for longer periods, whilst others felt it was important that the patient had time at the start of the session to talk, but that the physiotherapy student did not lose control. Hiller et al. (2015) found that physiotherapists predominantly used a practitioner-centred communication approach controlled by the physiotherapists, but noted that physiotherapists also made some attempts at patient-centred communication, particularly with the use of casual conversation and touch. Some participants in this study wanted students to move between practitioner-centred communication and patient-centred communication, although it appeared that a practitioner-centred approach was valued more highly to ensure the student gathered what they needed to make a diagnosis. Hiller et al. (2015) and Smith and Hoppe (1991) also suggest that neither a practitioner-centred approach nor a patient-centred approach should be used exclusively but that there should be some movement back and forth between these patient-centred and practitioner-centred approaches.

In their feedback about the student in the stimulus video, educators appeared to have differing views about how much the patient should be able to ‘lead the dance’ and how much the student should be ‘in control’. A paucity of literature on this aspect of physiotherapy exists, especially in relation to ‘turn-taking’. However, a small number of

studies partially address this turn-taking. Hiller et al. (2015) found that physiotherapists tended to lead communication and set the structure of sessions, which generally followed repeatable patterns, perhaps suggesting a lack of turn-taking and adaptability. Physiotherapists at times even interrupted the patient to ask their next questions (Hiller et al., 2015). Yip and Schoeb (2020) similarly found that physiotherapists gave patients little opportunity for participation in the conversation and Opsommer and Schoeb (2014) highlighted that when patients gave cues to the physiotherapist, these were often not addressed either at the time or at a later stage. These findings suggest that turn-taking is not symmetrical between patients and physiotherapists. Similarly, Goldingay (2006) found that physiotherapists did not give attention to topics raised by patients. Educators in the current study described aspects of the session as negotiable while the dance is in progress. This requires the student to tune in, connect and read the patient, and also to respond and change tack if the patient shared something unexpected, and be willing to follow the patient's lead. The ability to read, respond, and 'dance' appears to require very mature and advanced communication skills, which literature suggests are not being modelled even in qualified physiotherapists (Opsommer & Schoeb, 2014; Yip & Schoeb, 2020). Such advanced skills are likely to be beyond the skill level of undergraduate students, even more capable students. Educators themselves described most students as being able to adapt to some degree, but struggling to demonstrate these higher levels of adaptability. Eighty-three percent of educators in this study had over ten years of clinical experience, so perhaps their expectations about such responsiveness are high and may not reflect the average physiotherapist or the abilities of an undergraduate physiotherapy student. Clarification may therefore be needed regarding the communication expectations at different stages of the journey from a student's first clinical placement to their last placement, and all the way to being an experienced practitioner. Without clear expectations students may be assessed using criteria representative of advanced levels of communication deemed as important by their educator.

Empathising with Patients and Building Emotional Connection

As part of the dance of communication, educators appreciated students who could build emotional connections or rapport with their patients, whilst still remaining

'professional'. This was described in terms of using casual conversation about sport, family and general banter to build connections and put the person at ease. Casual conversation also demonstrated an ability to show empathy with the person. Empathy has been shown by patients to facilitate the therapeutic alliance, when the physiotherapist understands the patient's feelings and clearly demonstrates this (Rodríguez-Nogueira et al., 2022). Empathy has been discussed in physiotherapy literature in terms of 'doing' or 'showing' empathy, which suggests an outward demonstration of understanding the patient's perspective or experiences (Millie & Roberts, 2017). Patients also highly value empathetic physiotherapists as it makes them feel cared about as a person (Kidd et al., 2011; Peiris et al., 2012). Educators in this study described trying to understand when students were struggling to build rapport and show empathy and helping them find ways to grow this skill. Using personal stories was another way educators described building emotional connections with patients. There were varying opinions around how much self-disclosure was appropriate amongst educators, and it appeared that in addition to reading the patients, students may have to read their educator on how much self-disclosure is appropriate. This is another challenge beyond the scope of this study but worth noting. Mescouto et al. (2022a) found that the sharing of personal stories sometimes enabled the patient and the physiotherapist to better understand each other as human beings, particularly when it came to discussing sensitive subjects such as the patient's weight. None of the participants discussed communication as being important for relationship building or engagement despite this being evident in the literature (Bishop et al., 2021; Chichirez & Purcărea, 2018).

The Challenge to Support Such Dynamic Communication

Although the development of communication skills is seen to be very important in physiotherapy practice both by educators in this study and in the literature, little is known about how these skills are learnt (Plack, 2006). For example, despite participants valuing adaptive and responsive communication, participants did not appear to be *proactive* in making clear to students what they expected in terms of adaptable and responsive communication. Educators were able to recognise when a student failed to respond to a patient in the expected manner and either model what

they wanted or provide them some feedback or even rules about what they needed to do. It appeared that clinical educators lacked the repertoire of skills to structure conversations and rehearse scenarios in advance. It may be necessary to develop strategies to assist educators to make the concept of dynamic communication visible to students.

Communication is known to be developed by practice and experience in communities of learning (Wenger, 1988). Students need to learn to make judgements, build confidence, and begin to trust their own skills (Edstrom, 2008) and this is best done in authentic clinical environments with all the complexity they offer (Bensing et al., 2003; Giroldi et al., 2017) and the opportunities to interact with a wide range of people (Plack, 2006). Salmon and Young (2011) suggest that communication training in physiotherapy needs to be creative and move away from teaching communication skills to building skilled communicators who can make appropriate decisions in the moment and also have confidence in their own communicative style. Clinical educators have an important role to play in providing safe and authentic learning situations for students to experiment with their communication, providing tools to reflect on practice, and helping students to develop self-awareness (Verheijden et al., 2022). Yet despite being well-positioned to provide this learning support, educators appeared to lack frameworks about both communication models and theory and also educational paradigms by which to scaffold student learning. Only two educators referred to underlying models of communication during the interviews. This finding was also noted in a study by Hiller et al. (2015) who found that physiotherapists did not intentionally refer to models of communication, which suggests that they rely on their own experience and values. A lack of reference to educational paradigms in interviews with educators was also evident. This suggests that educational theory and communication models are needed for educators.

Looking at how communication is taught in other health professions may open up different possibilities for physiotherapy. Whilst Salmon and Young (2011) argue against teaching communication skills and propose borrowing from the arts to support the learning of communication, Leroy and McKinley (2011) argue against using the arts and propose that teaching of communication skills must be based on science. White (2019)

argues that understanding how interactions 'work' to produce different responses is an important part of learning to become an effective communicator. A systematic review about improving medical students' communication skills found that interpersonal education programmes involving specific and individual feedback probably improved communication skills (Gilligan et al., 2021). Despite these divergent views, there is agreement that communication is best learnt in authentic clinical settings (Anders, 2008; Wouda & van der Wiel, 2013).

Borrowing from the arts as a way to train such adaptive communication may be one way forward in clinical education (Eisner, 2003; Haidet et al., 2017; Salmon & Young, 2011). Participants in my study appeared to use retrospective modelling and discussion to support students to develop adaptive and responsive communication. Another study has utilised the arts to help support the learning of adaptive communication and improvisation with positive outcomes in medicine (Haidet et al., 2017). Mescouto et al. (2022b) studied reciprocity in physiotherapy interactions and used an idea from theatre where students and patients can either *accept or block offers* from each other. An offer may be anything a person says or does. Accepting an offer was described as responding to and building on something the patient said. In contrast, blocking an offer was seen as not acknowledging what the patient had said. Mescouto et al. (2022b) found that when physiotherapists accepted offers it helped build collaborative interactions. This idea could be used to support the teaching and learning of interactive communication in physiotherapy. Similarly, Haidet et al. (2017) developed a course for medical students using jazz as a metaphor, where students were encouraged to immerse themselves in the improvisational aspects of jazz music and then translate these learnings back to healthcare conversations. Medical students were found to demonstrate significant improvements in responsive communication following this course. These are just a few novel ideas and approaches to simulations that could be considered to support the learning of dynamic communication in physiotherapy students. A qualitative study of educators may further highlight the needs of both students and educators and inform further training needs.

A Hierarchal Approach to Communication

Clinical educators described communication skills as a hierarchy with skills given varying levels of importance when working with students. There was a dominant focus on the' bio' aspect of a patient's condition which shaped communication practice. This reflects the strong pull of the long held biomedical approach within physiotherapy (Bright et al., 2018; Nicholls & Gibson, 2010). Other studies also confirm this predominance of the biomedical approach among physiotherapists (Bello, 2012; Hiller et al., 2015; Woodward-Kron et al., 2012). Communication associated with a biomedical model tends to be therapist-centred, structured, and focused on biological processes and physical symptoms (Engel, 1980; Opsommer & Schoeb, 2014). This was reflected in the current study, with participants referring to pain scales, factors that aggravated and eased the pain, and reproducibility of symptoms as areas they get students to focus on. One difference in this study is that despite the predominant focus on the physical aspects of a patient's condition, participants also valued students who had the agility to move between a therapist-centred approach (gathering what they need to make a diagnosis and plan treatment) and a more patient centred approach. Participants suggested that it was important to focus on the patient's story, especially at the start, by using open-ended questions and letting the patient talk without interruption but then returning to the agenda of reaching a diagnosis. Patient-centred communication was seen as important, but not as important as gathering what was needed for the diagnosis, suggesting that patient-centredness is subject to first reaching a diagnosis.

Participants also appeared to have a narrow view of what constitutes person-centred communication. Listening to a patient story is just one feature of person-centred communication (Jesus et al., 2021; Leplege et al., 2007; Mead & Bower, 2000). There was little evidence of the broader applications of person-centred communication in the findings. However, literature describes a much broader approach to person-centred communication (Jesus et al., 2021; Terry & Kayes, 2020b) that includes doing care *with* rather than *for* the person and adopts a relational approach to care that enables self-efficacy, promotes autonomy (Epstein et al., 2005; Jesus et al., 2016; Leplege et al., 2007; Mead & Bower, 2000) and honours what is important to the patient. A further feature of person-centred communication described in the literature

is the ability to meet a person's needs, values, and preferences (Jesus et al., 2016). These aspects of 'doing care' with the person and seeking to understand their preferences and values were not evident in the current findings and it seems that they may be less valued and also less of a priority than questioning skills for gathering biological and physical information. It also suggests that educators have a very limited view of what constitutes person-centred communication.

Educators appeared to place considerably less emphasis on assisting students to understand a patient's psychosocial context, i.e., less emphasis on the 'psychosocial' aspects of the biopsychosocial approach. One educator reported that social questions often seemed awkward or were left out altogether. A study by Cowell et al. (2018) examining physiotherapists perceptions' of treating people with non-specific chronic low back pain found that physiotherapists perceived themselves as lacking *confidence* and *time* to address psychological factors which influence a patient's experience of their condition (Cowell et al., 2018). Yet, in contrast to this perceived lack of confidence, Denneny et al. (2020) study of physiotherapists' application of psychologically informed practice in patients with chronic pain found that physiotherapists had many competencies in helping patients to reconceptualise pain beliefs and reduce perceived threats of injury. Perhaps Denneny et al's (2020) sample may already have had a bias towards more holistic practice. If an approach which focuses solely on the 'bio' aspect is predominantly modelled and re-enforced with students, the biomedical model rather than a more holistic approach will be perpetuated. This could potentially impact on students learning to be more holistic and prevent them from meeting the threshold competencies set down by the Physiotherapy Board which require students to identify and evaluate both individual and environmental factors which may impact the person (Physiotherapy Board of Australia and New Zealand, 2015). In the absence of a holistic approach, it is likely that assumptions will be made about how a patient experiences their condition and how it impacts on their thinking and their social involvement in their community, and treatment may not reflect that which is important to the patient.

Current conceptualisations of communication with a predominant focus on the biomedical approach are unlikely to support culturally responsive practice. Culturally

responsive practice has been described as appropriate and effective service delivery responding to the diverse needs of populations (Bowen, 2008). Culturally responsive practice is inherently holistic and acknowledges the whole person (Reohr et al., 2022). It has already been highlighted participants placed limited emphasis on getting students to understand the social and psychological impacts of an injury on a person's condition. Educators in this study encouraged students to make time at the start of sessions to listen to the patient story but then get back to the agenda, which was to reach a diagnosis. This is not in keeping with the hui process (Lacey et al., 2011) especially whakawhanaungatanga (See Glossary), the process of establishing relationships. In relationship building in a Māori context, it is deemed important to get to know where a person is from, who their people are, where their whenua or ancestral land is, and to share where you are from. Furthermore, relationship building needs to be ongoing throughout consultations and not a one- off event (Lacey et al., 2011). In addition, there was a notable absence of educators supporting students to understand spiritual well-being or *taha wairua* (Durie, 1998), and its influence on the patient's health. Culturally responsive practice utilises health models such as Te whare tapa wha (Durie, 1998) and Te Wheke (Pere, 2017), which are inherently holistic. For Māori, *taha wairua* (Durie, 1998) could mean religious beliefs or spirituality but could also mean the person's relationship with their environment, people, and history (Ministry of Health, 2022). Māori health models emphasise the importance of addressing *all* aspects of health for well-being (Health Navigator, 2022). There is a paucity of literature which examines how physiotherapists in Aotearoa New Zealand explore spiritual well-being with their patients. In a Scottish survey of 82 physiotherapists, 80% of participants agreed that spirituality was an important part of healthcare (Turner & Cook, 2016). However, 79% stated that they had not received training in how to provide spiritual care, which implies that spiritual well-being may not be prioritised in physiotherapy training. This further suggests that there is less focus on the non- biological aspects of the biopsychosocial model. Considering this in the context of Aotearoa New Zealand suggests that not encompassing holistic approaches to care may result in communication that is not culturally responsive and may reduce accessibility to health services for Māori or contribute to worsening health outcomes (Wilson et al., 2018).

In this study there appeared to be a lack of integration of all the aspects of a biopsychosocial model. Instead, educators hold the differing aspects in a hierarchy with some items having more value and emphasis then others. Students should try and use a biopsychosocial approach **but** actually the biological aspect of the diagnosis is considered more important than the psychosocial elements. Bello (2012) and Smith and Hoppe (1991) express a need to revisit the two models of care, biomedical and biopsychosocial model (Engel, 1980), and aim to *integrate* them. Engel (2012) argues that it is not clear how such an integration of underlying approaches can be supported, yet my research indicates that this is what educators want. A more purposeful and seamless integration may benefit physiotherapy practice by encouraging holistic care, patient responsibility, involvement in care, autonomy, and power sharing (Smith & Hoppe, 1991). Clinical educators have a crucial role to play in facilitating a more integrated approach to communication. Yet, it would appear that educators themselves need greater clarity on how an integrated approach could look in practice.

Expectations Around Communication Lack Visibility in Assessment of Communication

Lastly, expectations about communication appear to be vague between the universities and educators, between educators and students, and in the assessment criteria. It appeared that participants assumed communication to be intuitive. In addition to the challenge of teaching and supporting adaptive and responsive communication lies the responsibility of assessing such communication. Educators in New Zealand assess communication using the APP tool (Dalton, 2011) which only has one point about verbal and non-verbal communication that educators are required to rate on a Likert scale from 0-4 which is ‘communicates effectively and appropriately’. The list of performance indicators examples in Table 3 provide some detail, but as participants in this study suggest, it is challenging to capture so much nuance in one Likert scale.

Table 5

Performance indicators in APP related to adaptive and responsive communication

Performance indicators related to adaptive and responsive communication
Respects cultural and personal differences
Uses a range of strategies to optimise patient rapport/understanding
Uses suitable language and jargon

(Dalton, 2011. Mid placement examples of performance indicators; Communication 5, p470)

There appears to be no indication of what each point on the Likert scale in the APP represents in terms of effective communication. For example, a score of two on the Likert scale indicates an adequate standard for the performance indicator for the placement. The performance indicator is "Communicates effectively and appropriately (verbal and non-verbal communication)"(Dalton et al., 2011, p 470). It relies on the educator's interpretation to determine what is adequate for this performance indicator. A more transparent description for students of what "effective and appropriate" (Dalton et al., 2011) represents could signal some expectations to students. Furthermore, if students need to demonstrate that they can adapt their communication to patients, educators need to proactively discuss and identify what it could mean to adapt their communication (Woodward-Kron et al., 2012). To make expectations transparent, educators need to highlight what situations students may need to adapt to and how they may be expected to demonstrate responsiveness to a patient. If expectations about how students should be responsive to patients are not made visible in teaching or in the assessment criteria, as was suggested by my research, and each educator has their own subjective, personal view, this could leave students confused, and also with a mark that is not representative of their ability. For example, Woodward-Kron et al. (2012) found that educators evaluated non-verbal behaviour both positively and negatively. Educators commented on either not enough or too much of a certain behaviour (Woodward-Kron et al., 2012). These judgements were made in the context of the evaluation and the appraisal of other behaviours and actions. Subjective and personal views leave room for interpretation so may not be consistent amongst educators with differing perspectives. Other studies have found students like clear expectations to support their learning; if expectations are not clear, frustration and barriers to learning can result (Schmutz et al., 2021). In one study, one

educator described a student's body communication: "at times it was not quite appropriate smiling" (Woodward-Kron et al., 2012, p.179) which is vague feedback for a student. Students need to know when the educator considered their smiling as not appropriate and what messages may be conveyed to the patient. Making expectations more visible for students and providing clear and detailed feedback is likely to support their learning of communication skills. In the context of education visible learning has been shown to support better outcomes for learners and facilitate students to become self-monitoring, self-evaluating, and self-teaching (Hattie, 2012) and this is likely to be the same for learning in physiotherapy.

Summary

Two key aspects of how educators perceived effective communication have been discussed. Educators saw communication as an adaptive dance requiring constant attention and adaption to meet the dynamic needs of the patient, turn-taking between the student and the patient, and the development of emotional connection between both parties. Individual educators also valued communication skills differently. Skills were viewed on a hierarchy, with questions related to the physical aspect of the patient's illness being prioritised and social, psychological, and spiritual aspects considered less important and less valuable. Lastly, the expectations for the assessment of communication are not clear, which could result in students facing barriers as they try to understand expectations of them.

Implications for Practice and Policy

Firstly, there needs to be some consideration at the university level regarding how to explain to students the need for agile and adaptive communication in response to the presentation of patients and to their individual communication needs. The universities need to consider how to teach, and practice communication skills with students. One example of how educators could facilitate analysis and reflection could be reviewing a video clip of an educator working with a patient followed by a facilitated discussion regarding aspects of communication and underlying communication concepts. University academic staff could also provide clinical educators with ideas for learning activities to support students while on placement. For instance, one possibility would be for students to observe an educator working with a patient and consider all the

different ways the educator *adapted* their communication to suit the person. After the session, students could discuss their observations with the educator. The universities could consider novel ways teaching adaptivity could be taught using theatre sport. For instance, student role plays with simulated patients with an observer examining how they accepted and blocked offers from the patient and provided feedback (Mescouto et al., 2022a). Another recommendation is the use of a rubric to clarify the level of adaption expected on a first placement versus a final year four placement. Woodward-Kron et al. (2012) and Elder and McNamara (2016) noted that educators gave minimal feedback about communication in the clinical setting unless they were required to do so on a template. Thus, educators may need prompting with a feedback sheet to observe and give students nuanced feedback both at the midpoint and the end of their placements.

Secondly it appears that training sessions for clinical educators are required to address the biomedical and the biopsychosocial models and the strengths and limitations of each. Educators need to understand how the models they use will inform communication practice. For example, they could review two videos of physiotherapists, one using a biomedical approach and one using a biopsychosocial approach, and compare the questions and communication skills demonstrated in each. They could reflect on the strengths and limitations of each model and what information was gathered or neglected. Raising awareness of how these models are treated as hierarchical rather than integrated, and facilitating discussion between academics, clinical educators, and researchers would be a good place to begin. Further discussion about how this hierarchical approach impacts communication practices and the likely ramifications will help to build awareness of current practices and their associated limitations. Training for educators also needs to include adult learning theories (Kauffman, 2018) to enhance their ability to act as role models and provide guidance for students.

Lastly the Physiotherapy Board may need to consider whether the threshold competencies provide adequate information about what is meant regarding communication competency and what would be considered insufficient competence for registration. For instance, what is meant by the statement 3.1F “adapt their

written, verbal and non-verbal communication to reflect the language proficiency, comprehension, impairments, age and health literacy of the client and relevant others" (Physiotherapy Board of Australia and New Zealand, 2015, Role 3: Communicator, 3.1F). It is not clear what is considered adequate adaption.

Limitations of This Research

While this study contributes new understanding to the body of knowledge about communication in physiotherapy practice, and more importantly, how clinical educators conceptualise communication, there are some limitations worth discussing. First, the sample lacked participants from a diverse range of ethnicities. The purposive sampling strategy attempted to recruit a diversity of educators working with diverse populations by sending the advertisement to clinical centre leaders who work with more diverse communities. Although the participants recruited worked with diverse ethnicities, no Māori, Pacifika, Asian, or Indian clinical educators volunteered to participate. Their potentially differing insights about what constitutes effective, culturally safe, and respectful communication would have contributed to an even richer dataset. Second, the study used a constructivist lens and interpretive Description to frame the data analysis. I recognise that this is just one epistemology and methodology and using an alternative approach may have yielded different findings. For instance, an observational ethnographic study may have captured how educators actually respond in the moment to student communication and highlighted any differences between what educators say they do and what they actually do under the constraints of day-to-day practice with its multitude of pressures.

Strengths of the Current Research

This research has added new understanding about how clinical educators conceptualise effective communication. One strength was that two sources of data were collected. This captured educators' initial reactions to the video before they had any interaction with the researcher and then the interviews enabled a deepening of the discussion around their experiences working with final year students. Observations and comments from educators after viewing the same student in the video provided clear insights into how differently they all perceive and evaluate communication based on their own ways of viewing physiotherapy practice and their personal viewpoints.

Furthermore, educators provided detailed descriptions of what they value in student communication and the tensions at play and have highlighted some limitations with the APP assessment tool. These are new insights this research has added to existing knowledge and provided valuable insights for practice and future research.

Future Research

Currently educators are required to determine average, good, and excellent communication skill and to assign a score, but have few criteria to base their decisions on. We need to know what is an adequate standard of communication for students at the end of their first placement and at the end of their last placement to develop more transparent and detailed criteria for assessing students. An observational study comparing students with poor, average, and high levels of communication skill and how this is judged across several clinical education centres should be undertaken with the aim of establishing clearer criteria.

A further study could examine if a feedback/feedforward form which specifically requires educators to observe and focus on various aspects of student communication would improve the quality and quantity of feedback that students receive.

This study solely explored educators' conceptualisations of student's communication in musculo-skeletal clinical settings. It would be helpful to know how this compares with clinical educators' conceptualisations in other settings such as neurology, cardio-respiratory and oncology.

Conclusion

This study commenced with an interest and belief that effective communication leads to better relationships with patients, better treatment outcomes, and improved patient satisfaction. Underpinning this was a desire to know what constitutes 'effective communication'. In my study, I sought to explore this from the perspective of clinical educators who work closely with final year physiotherapy students in Aotearoa New Zealand due to their critical role in supporting the development of future healthcare professionals. This study showed that communication was conceptualised in different ways, with core components including: the importance of creating and maintaining therapeutic space for patients, the need to be responsive to individual patients and

their presentation and communication needs, and the use of communication to facilitate gathering information to formulate a diagnosis. The challenges to support effective communication were also identified. The findings show that communication is by nature complex because it is subjective and deeply personal, and requires students to adapt and respond to a diverse range of patients and clinical situations 'in the moment'. This suggests that the task of making communication expectations visible to students both in a practice setting and in assessment is difficult. This study demonstrates that communication practices are shaped and perpetuated by broader understandings of physiotherapy practice which currently appear to be held in tension with each another rather than integrated. These are positioned as competing priorities at play. Going forward, a broader understanding of the construct of person-centred communication is needed, with particular attention to practical strategies for understanding the holistic needs of patients and more focus on doing care *with* patients rather than *for* them. Further training of both students and educators is needed so they have the tools to enact these strategies in practice. Educators need support to make expectations regarding adaptive and responsive communication visible to students both in practice and in assessment, so that education is transparent and students know what the expectations are.

Glossary

Clinical educator	This term is used in Australia and New Zealand for people who have both a clinical role but also mentor students while on placement. This term has been used in the literature review as a search term and throughout this thesis.
Clinical instructor	This term is used in the United States of America (USA) for people who have both a clinical role but also mentor students while on placement. This term has been used in the literature review as a search term to capture articles from USA but not throughout the thesis.
Clinical supervisor	This term appears to be used in South Africa and Scandinavia as an alternative term for those clinicians who also supervise and mentor students. It was used in the literature review to capture articles from South Africa or Scandinavia but not in the thesis
Patient	The term patient derives from the Latin word “patiens” from “patior” which means to bear or to suffer. Some argue that this indicates a passivity which is unhelpful. The other argument against the use of this term is that patient implies ill health and much work of health professionals is about activities of daily living. However, this term has been chosen in this thesis because it is one still preferred by patients themselves (Neuberger, 1999), however it has not been used in patient-centred care and instead person- centred care was chosen as it better represents a whole person and not an patient defined by an illness.
Client	A client suggests someone who is paying for a service and so has not been used in this thesis as it does not always fit the context of people being treated in government services which are free.
Whakawhanaungatanga (Māori term)	The process of creating and maintaining relationships. It recognises a person’s connection comes from their connections with other people and places rather than what they do.
Whenua	Whenua or land holds a lot of significance for Māori. It also means placenta. Māori see all life as being born from Papatuanuku. Māori are known as tangata whenua (people of the land) and family land is where ancestors were born, where they have been nurtured, where food is grown and where the whanau connect with each other.
Interpersonal communication	Interpersonal communication in this thesis has been used to refer to the dynamic exchange of information between two people. It includes both verbal and non-verbal components of communication.

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Appendices

Appendix A. Ethics Approval

Auckland University of Technology Ethics Committee (AUTEC)

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

31 May 2021

Sarah Mooney
Faculty of Health and Environmental Sciences

Dear Sarah

Re Ethics Application: **21/1 How do clinical educators conceptualise "effective" communication in final year physiotherapy students**

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

Your ethics application has been approved for three years until 31 May 2024.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard and that all the dates on the documents are updated.

AUTEC grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

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

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

For any enquiries please contact ethics@aut.ac.nz. The forms mentioned above are available online thr http://www.aut.ac.nz/research/researchethics

(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Cc: Carolyn.wilson@toiohomai.ac.nz; felicity.bright@aut.ac.nz

Appendix B. Physiotherapy Roles in Which Interpersonal Communication Skills are Needed

Table 1

Physiotherapy competencies which explicitly reference interpersonal communication with patients

Role	Key competencies
Role 1: Physiotherapy practitioner	1.1 Plan and implement an efficient, effective, culturally responsive and client-centred physiotherapy assessment. 1.2 Involve the client and relevant others in the planning and implementation of safe and effective physiotherapy using evidence-based practice to inform decision making.
Role 3: Communicator	3.1 Use clear, accurate, sensitive and effective communication to support the development of trust and rapport in professional relationships with the client and others. 3.2 Record and effectively communicate physiotherapy assessment findings, outcomes and decisions. 3.3 Deal effectively with actual and potential conflict in a proactive and constructive manner.
Role 5: Collaborative Practitioner	5.1 Engage in inclusive, collaborative, consultative, culturally responsive and client-centred model of practice.
Role 6: Educator	6.1 Use education to empower themselves and others. 6.2 Seek opportunities to lead the education of others, including physiotherapy students, as appropriate, within the physiotherapy setting.

(Physiotherapy Board of Australia and New Zealand, 2015, p. 104)

Appendix C. Assessment of Physiotherapy Practice Tool (APP)

Assessment of Physiotherapy Practice FINAL

tudent Name:

acility/Experience:

Infrequently demonstrates performance indicators
Demonstrates the performance indicator to an adequate standard some of the time for this placement
Demonstrates the performance indicator to an adequate standard for this placement
Demonstrates the performance indicator to a good standard for this placement
Demonstrates the performance indicator to an excellent standard for this placement

lote: a rating of 0 or 1 indicates that minimum acceptable standard has not been achieved.

LO 1. Professional Behaviour and Culturally Responsive Practice	Select/Tick one number only				
. Demonstrates an understanding of patient rights and consent	0	1	2	3	4
. Demonstrates commitment to learning	0	1	2	3	4
. Demonstrates ethical, legal & culturally responsive practice	0	1	2	3	4
. Demonstrates collaborative practice	0	1	2	3	4
.O 2. Communication					
. Communicates effectively and appropriately - Verbal/non-verbal	0	1	2	3	4
. Demonstrates clear and accurate documentation	0	1	2	3	4
.O 3. Assessment					
. Conducts an appropriate patient-centred interview	0	1	2	3	4
. Selects and measures relevant health indicators and outcomes	0	1	2	3	4
. Performs appropriate physical assessment procedures	0	1	2	3	4
.O 4. Analysis & Planning					
0. Appropriately interprets assessment findings	0	1	2	3	4
1. Identifies and prioritises patient's problems	0	1	2	3	4
2. Sets realistic short and long term client-centred goals	0	1	2	3	4
3. Selects appropriate intervention in collaboration with the patient	0	1	2	3	4
.O 5. Intervention					
4. Performs interventions appropriately	0	1	2	3	4
5. Is an effective educator	0	1	2	3	4
6. Monitors the effect of intervention	0	1	2	3	4
7. Progresses intervention appropriately	0	1	2	3	4
8. Undertakes discharge planning	0	1	2	3	4

LO 6. Evidence-based Practice					
19. Applies evidence based practice in patient-centred care	0	1	2	3	4

LO 7. Risk Management					
20. Identifies adverse events/near misses and minimises risk associated withassessment and interventions	0	1	2	3	4

In your opinion as a clinical supervisor, the overall performance of this student in the clinical unit was:

Not adequate Adequate Good Excellent

Scoring rules:

Select/Tick only one number for each item.

Students must achieve a score of 2 for each Performance Indicator (1-20) to pass the clinical placement.

Clinical Supervisor Feedback - End of the Placement Summary

Student strengths

Areas of practice to work on during next placement

Areas of practice where student has shown specific improvement

Appendix D. Questions for Reviewing Articles for the Study

JBI CRITICAL APPRAISAL CHECKLIST FOR QUALITATIVE RESEARCH

Reviewer_____Date_____

Author_____Year_____ Record Number_____

		Yes	No	Unclear	Not applicable
1.	Is there congruity between the stated philosophical perspective and the research methodology?	☐	☐	☐	☐
2.	Is there congruity between the research methodology and the research question or objectives?	☐	☐	☐	☐
3.	Is there congruity between the research methodology and the methods used to collect data?	☐	☐	☐	☐
4.	Is there congruity between the research methodology and the representation and analysis of data?	☐	☐	☐	☐
5.	Is there congruity between the research methodology and the interpretation of results?	☐	☐	☐	☐
6.	Is there a statement locating the researcher culturally or theoretically?	☐	☐	☐	☐
7.	Is the influence of the researcher on the research, and vice- versa, addressed?	☐	☐	☐	☐
8.	Are participants, and their voices, adequately represented?	☐	☐	☐	☐
9.	Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	☐	☐	☐	☐
10.	Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	☐	☐	☐	☐

Overall appraisal: Include ☐ Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

_____

_____

Appendix E Participant Consent form

Consent Form

Project title: **How do clinical educators conceptualise "effective" communication in final year physiotherapy students?**

Project Supervisors: **Sarah Mooney and Felicity Bright**

Researcher: **Carolyn Wilson**

- ○ I have read and understood the information provided about this research project in the Information Sheet dated 24/11/2020.
- ○ I have had an opportunity to ask questions and to have them answered.
- ○ I understand that demographic data will be collected by an online survey.
- ○ I understand that my notes I make while watching the video will be collected as data.
- ○ I understand that the researcher will take notes during the interviews and that the interview will also be audiotaped and transcribed.
- ○ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- ○ I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- ○ I agree to take part in this research.
- ○ I wish to receive a summary of the research findings (please tick one): Yes○ No○

Participant's signature : .....

Participant's name : ..... Participant's

Contact Details (if appropriate) :

.....

.....

.....

.....

Date :

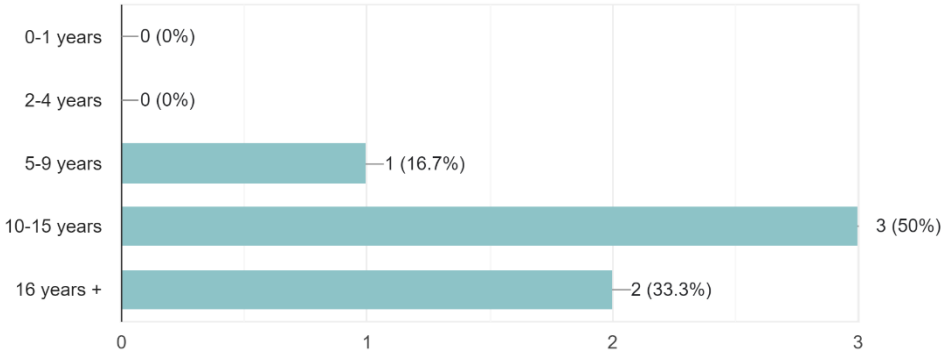
Approved by the Auckland University of Technology Ethics Committee on 31/05/2021 AUTEC Reference number 21/1.

Note: The Participant should retain a copy of this form.

Appendix F. Demographic Data of Participants

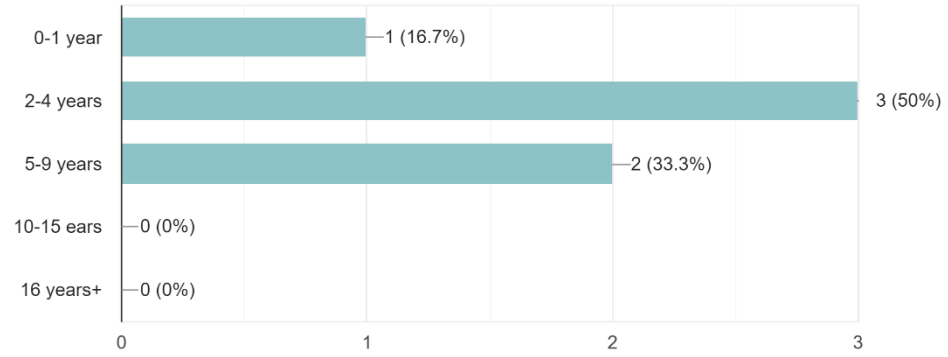
How many years of clinical experience do you have?

6 responses



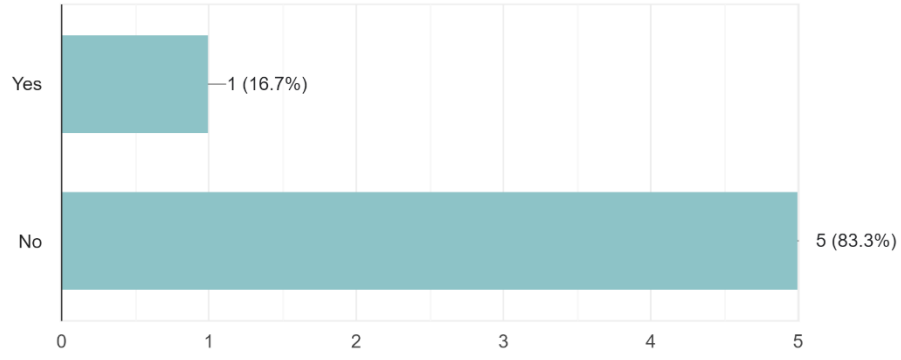
How many years experience do you have supervising students in New Zealand?

6 responses



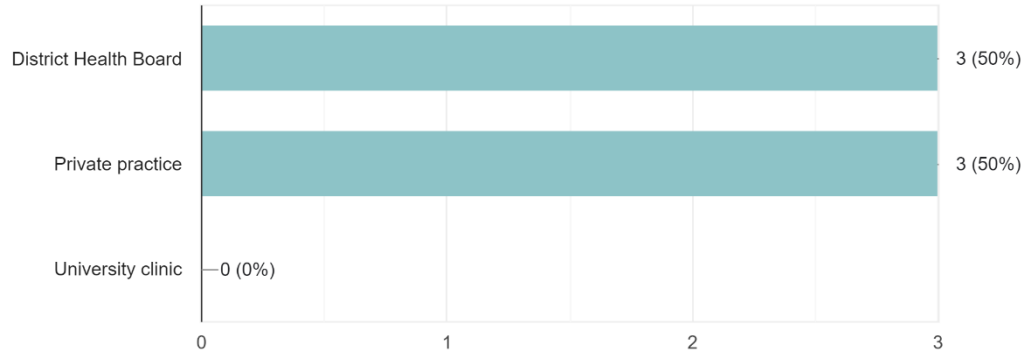
Have you supervised physiotherapy students overseas as well?

6 responses



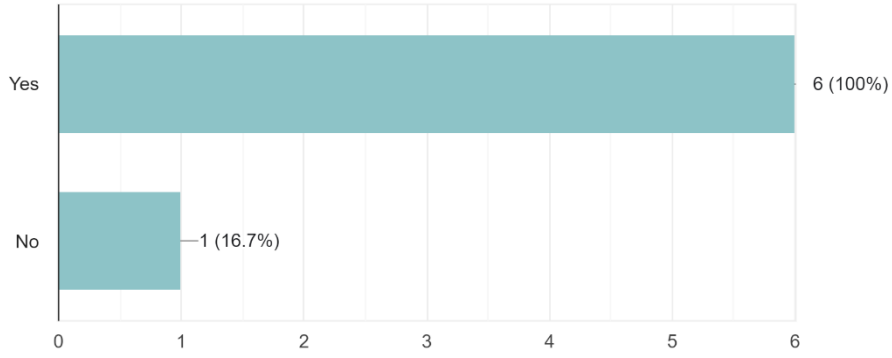
What is your primary place of work?

6 responses



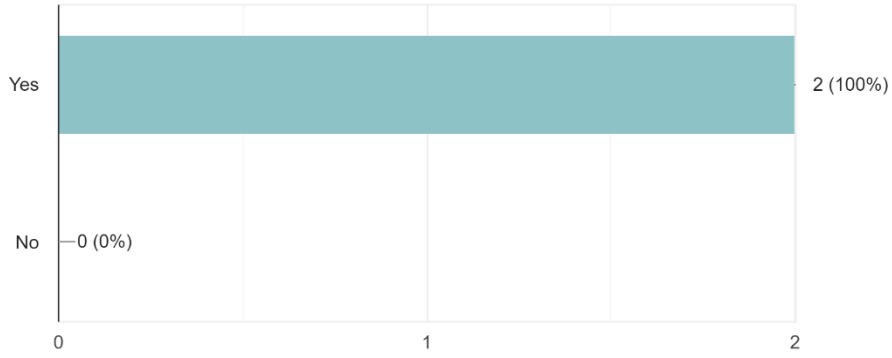
Do you currently supervise final-year physiotherapy students?

6 responses



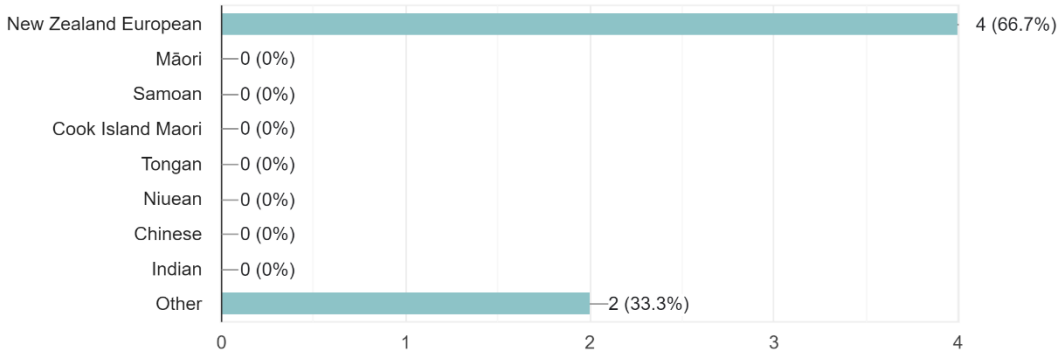
If the answer to the previous question was no, have you supervised final year physiotherapy students within the last 4 years?

2 responses



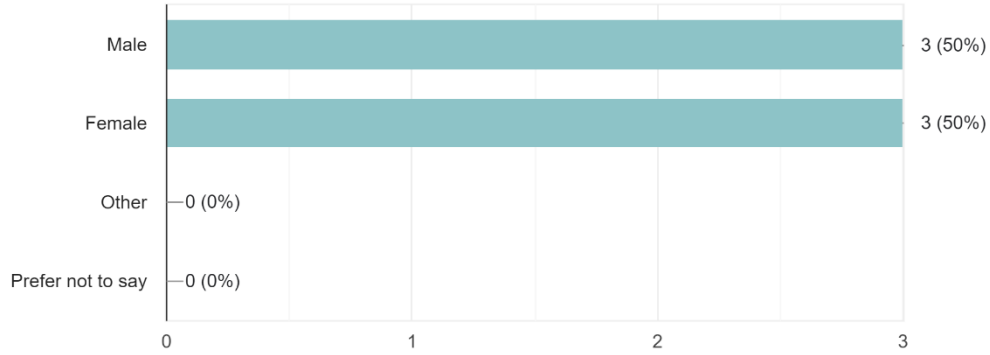
What ethnic group do you belong to?

6 responses



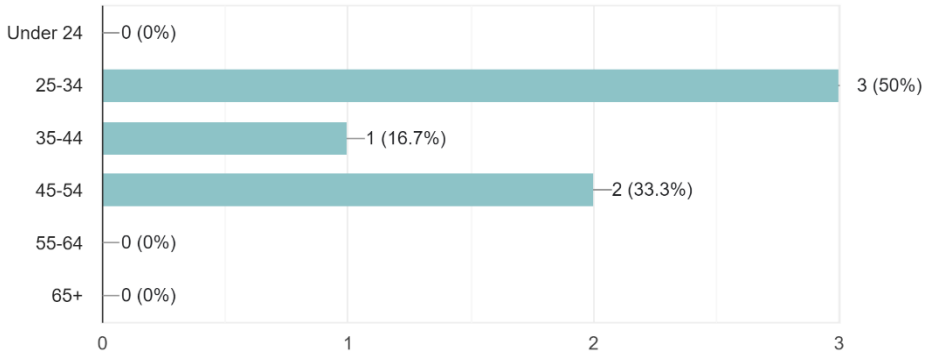
What gender are you?

6 responses



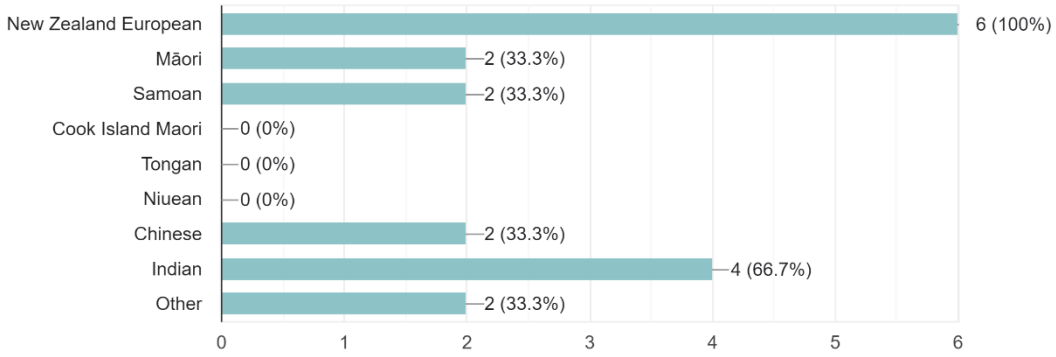
What age are you?

6 responses

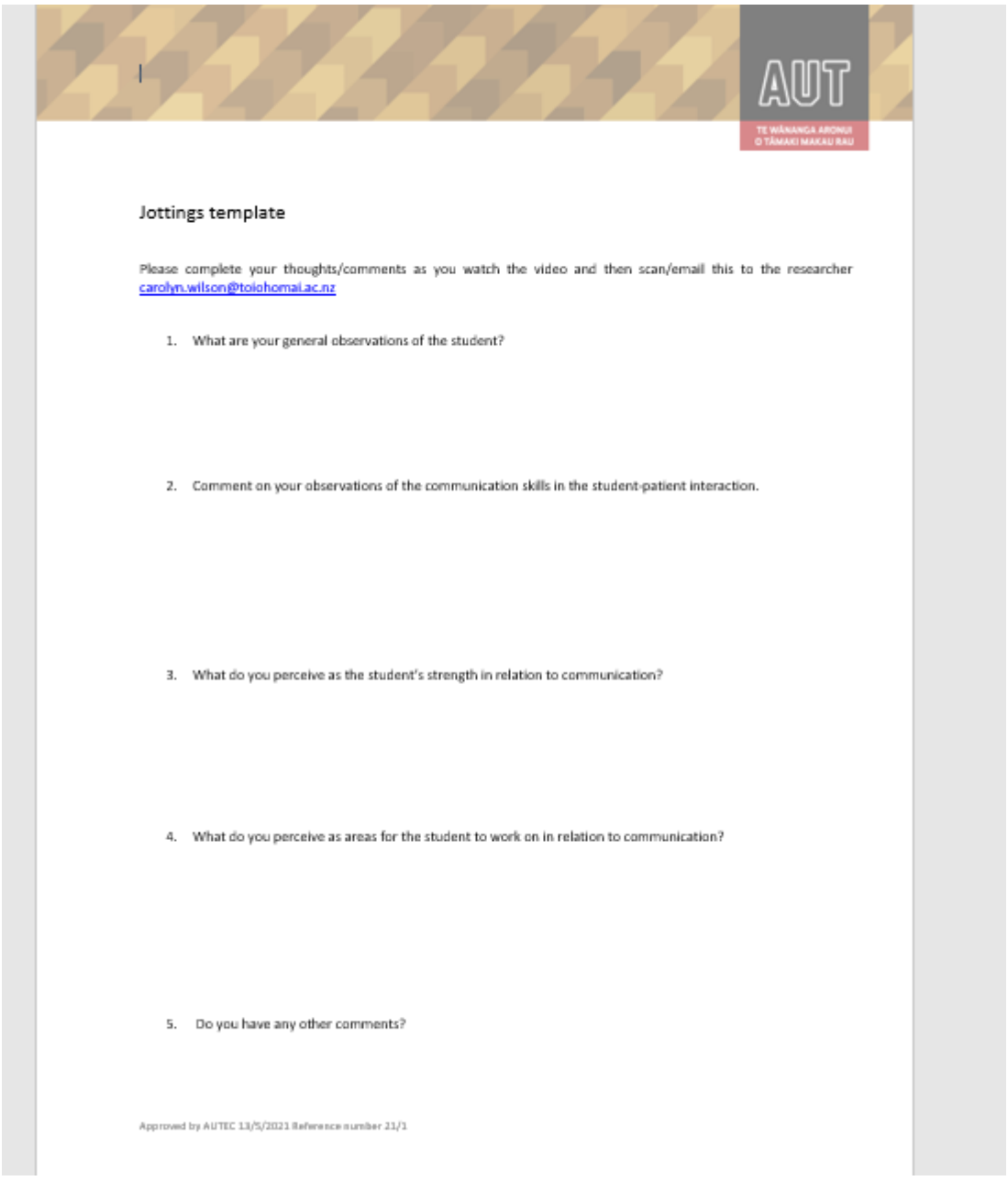


Please indicate the top 3 populations you work with

6 responses



Appendix G. Template for making notes while watching video



Jottings template

Please complete your thoughts/comments as you watch the video and then scan/email this to the researcher carolyn.wilson@toiohomai.ac.nz

1. What are your general observations of the student?

2. Comment on your observations of the communication skills in the student-patient interaction.

3. What do you perceive as the student's strength in relation to communication?

4. What do you perceive as areas for the student to work on in relation to communication?

5. Do you have any other comments?

Approved by AUTEC 13/5/2021 Reference number 21/1

Appendix H. Interview guide

1 Video review

What elements of effective communication did you observe in the student-patient interaction?

What elements of less effective communication did you observe?

What feedback would you give this student? Anything else?

How would you scaffold this students' learning regarding communication skills?

What would you expect in this student's reflection after the session about communication?

Have you had students with similar communication skills? How did you scaffold them?

2. Understanding effective communication

There is a lack of consensus in the literature about what constitutes effective communication.

When you look for effective communication what key features would you be looking for? Anything ese?

Can you think of any non-verbal features of effective communication you might look for?

Can you think of a student who displayed poor communication skills? What behaviours did you notice in that student?

Can you think of a student who displayed average communication skills? What wold that look like?

Can you think of a student who showed outstanding communication skills? What did that look like? What kind of behaviours did they demonstrate?

Can you think of a scenario where communication was lacking and caused some concern for the patient? What happened? If I was sitting next to you what might I have seen? What did the communication look like? Were you able to help the student further develop? What was helpful in doing that?

How do students demonstrate professional communication?

Does the APP assessment tool capture your perception of effective communication?

How do students explore patients experiences of their injuries/illness?

Why do you focus on the subjective first and then the objective etc?

3. Ability to adapt to patients needs

The Physiotherapy Board of NZ says a physiotherapist should be able to adapt communication appropriately.

What does this mean to you when working with students? Anything else?

Can you tell me about an average final year student. Were they able to adapt their communication to the needs of the patient? In what ways?

Have you had a student with poor ability to adapt his/her communication? What behaviours did they show?

What behaviours might you see in a student who was good at adapting communication?

4. How does culture have an impact on effective communication?

How would you expect a student to adapt their communication to be culturally responsive?

5. **How much focus in put on communication skills in clinical education**?

One of the things research suggest about physiotherapy clinical education is that there is an emphasis put on technical skills and less on soft skills such as communication.

What is your experience of this? Does it resonate with your experience?

6. **Ideal versus reality**

In healthcare sometimes ideal practice versus reality are different because of other constraints.

If you could do whatever you liked to work with students on communication skills in practice what would this look like?

What factors limit your ability to be able to support students with developing communication skills?

67 **How do you support a students' communication skills while they are on placement?**

What resources to you use to support students with communication?

Do you feel you have had enough training to support effective communication?

Is there anything you think would be useful to help support students with communication skills?

Appendix I. Participant Information Sheet

Participant Information Sheet

Date Information Sheet Produced:

24/11/2020

Project Title

How do New Zealand physiotherapy clinical educators(supervisors) conceptualise "effective" communication in final year physiotherapy students?

An Invitation

My name is Carolyn Wilson, and I am completing this research as part of my Master of Philosophy at AUT. I am seeking physiotherapy clinical educators (supervisors) to participate in this research. If you choose not to participate there will be no impact on your relationship with AUT. If you choose to participate and later change your mind you are free to withdraw at any stage.

What is the purpose of this research?

The research aims to find out how physiotherapy clinical educators understand effective communication in final year physiotherapy students and how they support students to develop effective communication in the clinical environment. I will interview clinical educators about this.

The Physiotherapy Board has thresholds which practitioners must reach, and these include the ability to listen effectively and respond to verbal and non-verbal feedback and to seek clarification from the patient.

Clinical educators are key personnel to ensure physiotherapy students graduate with effective communication skills, however we currently lack knowledge of their understanding of how clinical educators perceive "effective" communication. This study seeks to address this gap.

The outcomes of this research will lead to a thesis in partial fulfilment of a Master of Philosophy. The findings may also be used for academic publications and presentations.

How was I identified and why am I being invited to participate in this research?

I am seeking up to 10 clinical educators who work in musculo-skeletal clinical settings either in DHB or in private practice settings. To participate, you must be currently working as an educator or have worked as a clinical educator within the last 4 years. If more than ten people express an interest in participating we will select people aiming for a wide variation across participants. If an educator only works for a university and does not have a clinical load they will be excluded in this study. If there is any conflict of interest between the participant and the researcher you will also be excluded from the study.

How do I agree to participate in this research?

If you are interested in participating, please contact Carolyn Wilson by phone or by email on the details below. I will answer any questions you may have about the study and send you a consent form for you to sign and return.

Your participation in this research is voluntary and whether you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

If you work as an employee/supervisee of the researcher, you will be excluded from participation.

Carolyn Wilson	021 142 3517	carolyn.wilson@toiohomai.ac.nz

What will happen in this research?

You will be asked to complete a short on-line demographic questionnaire (10 minutes maximum). A link will be sent to you. This will assist the researcher in checking participants meet the inclusion criteria. Following this, we will arrange an interview at a time which is convenient to you. Prior to the interview you will be asked to view a short video of a student-patient interaction (10 minutes) and fill out a form about what you observed. This form

will be collected as data. Following the viewing of this video, you will be asked to participate in a semi-structured interview using a secure online platform (maximum 75 minutes). The interview will be recorded (voice only) and recordings will then be transcribed and analysed.

What are the discomforts and risks?

I am not expecting there will be any risk to you as a participant. During the interview you may choose not to answer any questions if you do not wish too. The interviews will be recorded (voice only) for data. Your responses will be kept confidential and only myself and my supervisors will have access to the interviews/recordings.

However, if you feel at any stage that you have experienced any risk or discomfort please contact one of my supervisors and access to support will be provided. If you live in Auckland, AUT Health Counselling and Wellbeing is able to offer three free sessions of confidential counselling support for adult participants in any AUT research project. These sessions are only available for issues that have arisen directly as a result of participation in the research and are not for other general counselling purposes. To access these services, you will need to:

- drop into our centres at WB219 or AS104 or phone 921 9992 City Campus or 921 9998 North Shore campus to make an appointment. Appointments for South Campus can be made by calling 921 9992.
- let the receptionist know that you are a research participant and provide the title of my research and my name and contact details as given in this Information Sheet.

You can find out more information about AUT counsellors and counselling on http://www.aut.ac.nz/being-astudent/current-postgraduates/your-health-and-wellbeing/counselling.

If you live outside of Auckland, you will be able to seek free sessions of counselling via your employer assistance programme.

What are the benefits?

- This research will assist me in obtaining my Master of Philosophy.
- I hope as participants you will find it useful to reflect and talk about your practice experiences.
- Your experiences will contribute to the gap in research in this area.
- This research will help to inform future training of physiotherapy students in communications skills.

How will my privacy be protected?

Your personal data will be stored on a password protected computer and be deleted once the research is completed. The interview recordings (voice only) will be transcribed, and the transcriptionist will sign a confidentiality agreement. The transcripts and voice recordings will be stored on a password protected and encrypted computer accessible only by myself and my supervisors. The voice recordings and transcripts will be stored with a pseudonym so you cannot be identified. After the research is complete the recordings and transcripts will be stored at AUT for 10 years in the Centre for Person-centred research securely before being destroyed.

What are the costs of participating in this research?

There is no cost to you to participate. Your time only is required. It is expected it will 10 minutes to complete the demographic survey, 10 minutes to view the stimulus video and 75 minutes maximum for the interview which follows.

What opportunity do I have to consider this invitation?

You have two weeks to consider this invitation and then I will contact you to see if you are interested in participating.

Will I receive feedback on the results of this research?

If you have requested a summary of the results on the Consent Form, on completion of the research you will be emailed a link where you can read the findings.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Sarah Mooney, sarah.mooney@aut.ac.nz , 021926 688.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, *ethics@aut.ac.nz*, (+649) 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 the research team as follows:

Researcher Contact Details:

Carolyn Wilson, carolyn.wilson@toiohomai.ac.nz 021 142 3517 ***Project***

Supervisor Contact Details:

Sarah Mooney, sarah.mooney@aut.ac.nz 021926 688.

Felicity Bright, felicity.bright@aut.ac.nz 021162 2028

Approved by the Auckland University of Technology Ethics Committee on *31/05/2021*, AUTEC Reference number 21/1.

Appendix J. Advertisement

Are you a physiotherapy clinical educator?

Have you supervised final year physiotherapy students within the last four years?

Kia Ora

My name is Carolyn Wilson, and I am currently living in Rotorua, where I grew up. I have worked as a physiotherapist for over 20 years and have an interest in patient-centred care and the importance of communication in physiotherapy. I am undertaking a research project as part of a Master of Philosophy. The title of the research is: *How do physiotherapy clinical educators conceptualise "effective" communication in final year physiotherapy students*? I would love to have you participate in this study.

Up to 10 participants are required.

You will need to be a: -

- Current, practising physiotherapist.
- Musculo-skeletal physiotherapist working in either a DHB or private practice.
- Clinical educator who has supervised *final* year physiotherapy students from either AUT University or University of Otago or WinTec; or have supervised final year physiotherapy students within the last 4 years for one of these training institutions.

* University-based clinical educators are excluded and clinical educators from WDHB area.

Participants will be asked to complete a short demographic survey online (10 minutes maximum), view and make notes of a 10- minute video of a student-patient interaction. This will be followed by an online interview (maximum 75 minutes).

Interested?
Please can you contact me: Carolyn Wilson
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Appendix K. Physiotherapy Board Threshold Competencies

(Physiotherapy Board of Australia and New Zealand, 2015, The Thresholds)

Overview of roles and key competencies

Role	Key competencies Registered physiotherapists in Australia and Aotearoa New Zealand are able to:
Role 1: Physiotherapy practitioner	1.1 plan and implement an efficient, effective, culturally responsive and client-centred physiotherapy assessment
	1.2 involve the client and relevant others in the planning and implementation of safe and effective physiotherapy using evidence-based practice to inform decision-making
	1.3 review the continuation of physiotherapy and facilitate the client's optimal participation in their everyday life
	1.4 advocate for clients and their rights to health care
Role 2: Professional and ethical practitioner	2.1 comply with legal, professional, ethical and other relevant standards, codes and guidelines
	2.2 make and act on informed and appropriate decisions about acceptable professional and ethical behaviours
	2.3 recognise the need for, and implement, appropriate strategies to manage their physical and mental health and resilience
Role 3: Communicator	3.1 use clear, accurate, sensitive and effective communication to support the development of trust and rapport in professional relationships with the client and relevant others
	3.2 record and effectively communicate physiotherapy assessment findings, outcomes and decisions
	3.3 deal effectively with actual and potential conflict in a proactive and constructive manner
Role 4: Reflective practitioner and self-directed learner	4.1 assess their practice against relevant professional benchmarks and take action to continually improve their practice
	4.2 evaluate their learning needs, engage in relevant continuing professional development and recognise when to seek professional support, including peer review
	4.3 efficiently consume and effectively apply research and commit to practice informed by best available research evidence and new knowledge
	4.4 proactively apply principles of quality improvement and risk management to practice
	4.5 recognise situations that are outside their scope of expertise or competence and take appropriate and timely action
Role 5: Collaborative practitioner	5.1 engage in an inclusive, collaborative, consultative, culturally responsive and client-centred model of practice
	5.2 engage in safe, effective and collaborative interprofessional practice
Role 6: Educator	6.1 use education to empower themselves and others
	6.2 seek opportunities to lead the education of others, including physiotherapy students, as appropriate, within the physiotherapy setting
Role 7: Manager/leader	7.1 organise and prioritise their workload and resources to provide safe, effective and efficient physiotherapy autonomously and, where relevant, as a team member
	7.2 lead others effectively and efficiently within relevant professional, ethical and legal frameworks

Appendix L. Transcript of stimulus video

Transcript Stimulus video

Student Thanks XX for coming in. My name is YY. I am the student physio who will be taking care of you. ZZ has given me a really good handover but could you just tell me what has been going on so we don't get the Chinese whispers affect.

Patient Sure so back at the start of March I was in a point class and we had a substitute teacher not my normal teacher and she had us doing an exercise to stop skidding when we go up on point, you know when you go up on the box, so the idea was front side back, to dig in to the bottom edge of the platform as If you were about to go on top the box but not quite. I had a slightly tetchy ankle and I didn't want to injure myself. Famous last words. This was to do the same thing but on the ball of the foot. So, I pushed through the ball of the foot, you know what point shoes are like.

Student I do know what point shoes are like.

Patient They are quite stiff through the forefoot and point classes are quite noisy. You can't get around that. I pushed through and I didn't hear anything but my brain went uh oh and then I was like of don't be stupid you can't have done anything so I went outside and I pushed again through the ball of my foot and felt pain shooting up through my fourth and fifth metatarsals and in through my ankles and I thought oh that's not good and put some ice spray on it and took neurofen, sat out the rest of the class and literally hobbled home. I put ice on it that night and took more ibuprofen. In the morning it wasn't hugely swollen, just a little bit swollen and there was a little bit of bruising but the main thing was I was having a lot of trouble putting any weight on my foot. And it was during lockdown

Student Oh of course

Patient Level two so we were just coming out of the lockdown so I couldn't get out to do anything. So that was Monday night and by Thursday I can't walk

Student So a four-day period

Patient Yes in that four-day period it got worse so I messaged YY and he bought over some crutches and a moon-boot and stuff like that to keep me going and when we came out of lockdown YY did an assessment on it and said I don't think anything is broken but just in case. So, I got it checked out and nothing was broken. Went to Axis and the doctors I saw at Axis thought that there may have been some ligament issues and perhaps an occult fracture, so they had me do an MRI which was humongously painful, off the charts like 12 on the pain scale, all my muscles locked up and it was like hell for 15 hours afterwards

Student How long was the MRI for ?

Patient The MRI took 20 odd minutes. It is hard to know what the time lapse is when you are in there.

Student Totally when you are in that much pain, it feels like 20 hours

Patient Exactly so it took several days to settle down. Going back to have the MRI reviewed with the doctors at Axis they decided there had been some minor ligament tears which by that point (now a month and a half down the track)were healing, a joint capsule problem at the malleolus but they thought the pain problem was potentially complex regional pain syndrome so I had to go off to yet another specialist, a specialist pain physio who said I think this is this thing and will get you in with the pain specialist doctor

Student Rinse and repeat

Patient In the meantime I had been on Nortriptyline. Do you want me to spell that?

Student I know roughly how to spell that. I can read my scribbles

Patient That's good but that didn't work . I took that for 3 days but the side effects were so bad literally flat on my back-nauseous, dizzy, blurred vision the whole shebang so I stopped that and so the doctor at Axis put me on to a combination of Diclofenac and Pregabalin. So, the Pregabalin was 150 mg for the first week and then going up to 300 mg and Diclofenac was 75 mg twice a day. And I was basically unmonitored on

that and I found out it was quite a high dose of Pregabalin as I discovered so I had a whole ton of side effects

Student Mmm yeah

Patient Social dysfunction, cognitive dysfunction. Dizzy spells, vertigo. The pain modulation of it did work because I burnt myself while cooking and didn't realise, I had burnt myself .

Student Very effective

Patient Overly effective. The pain doctor mumble and grimaced about me being unmonitored on such high drugs and he ran me through the Budapest Tests and everything was yes yes yes for Type one CRYPS . So, he stopped me on the diclofenac and I have been titrating back on the Pregabalin for the last most of a month basically

Student So are you still on it?

Patient Still on the low dose I am going to try and go off it this weekend basically

Student How are the side effects going?

Patient They have been getting better. My brain is functioning which is good and the dizzy spells are getting less but I do still have them particularly if I get up too quickly or turn my head too quickly, you know the usual low blood pressure type of dizziness

Student I know that feeling all too well

Patient So I have been titrating back on that and there has been a slight increase in flare activity with that. . Oh, I know the doctor also put me on a short course of prednisone for a week

Student so that is done now

Patient Yes that is done

Student You are an amazing historian (words removed to protect privacy of patient). So helpful

Patient So that helped get rid of the tingling sensations, although that has come back a smidge and has reduced the flare activity in terms of the intensity and duration of the flare. Titrating back to this point 150 mg of Pregabalin has reintroduced a bit more pain and more flare activity particularly in this last week so I think the half-life of everything has expired ummm so

This was a section of a longer interview but only this section was shared with participants