

Re-negotiating the Boundaries

A Grounded Theory Study

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Abstract

Physiotherapy's historical adoption of the biomechanical approach which views the body-as-machine, has played an important part in defining its professional role, identity and status. But the physiotherapy profession is being challenged by increasing pressures from a changing healthcare environment, shifting government priorities and appeals from within the physiotherapy community itself, to find a different way of thinking about and practicing physiotherapy. However, there is no current consensus as to what this new physiotherapy approach should embody or how it could be achieved.

The physiotherapy literature indicated that the biomechanical approach is still prevalent in practice. However, healthcare models and approaches are being used to facilitate a more inclusive practice. This study developed a theoretical framework which was applied as a tool to assess the advantages, limitations and potential application of the healthcare frameworks found in the physiotherapy literature. This critical review concluded that the current healthcare frameworks are not well understood or consistently applied in physiotherapy practice. It also suggested that current healthcare frameworks are not sufficient to be the overarching theoretical framework needed to help the profession to cohesively adopt a more inclusive approach. Instead, a different way of conceptualising an overarching theoretical framework may be needed.

In this researcher's clinical experience, some physiotherapists were already practicing with a more inclusive approach to practice. Therefore, this study investigated five

musculoskeletal physiotherapists who had been identified as incorporating a ‘more than biomechanical’ approach into their private practice. It asked the question: *How are musculoskeletal physiotherapists integrating a ‘more than biomechanical’ approach into their private practice?* This research aimed to gain an understanding as to how and why these particular participants integrated a more inclusive approach and what this approach encompassed.

Constructivist grounded theory methodology was employed and data was collected via semi-structured interviews. Constant comparative analysis, theoretical sampling and memoing were used to construct the process called **Re-negotiating the Boundaries**. This process illustrated seven stages of the participants’ journeys including their motivations, obstacles encountered and the ethical, professional and personal self-negotiations that occurred along the way. It also explored the common aspects of these participants’ new approach.

Four common themes were identified throughout the constructed process:

1. **Authentic Practice:** participants’ search for ways to combine their personal values with their professional role.
2. **Power of Perception:** participants experienced discomfort believing their particular approach was on the margins of orthodox practice. The widening of their perception of the physiotherapy scope of practice fundamentally changed their practice.
3. **Reflective Practice:** participants used self-awareness and reflection to negotiate their new professional boundaries, indicating that the future of physiotherapy may lie in purposeful, reflective practice.

4. Concept of Connection: this was evident throughout these participants' more inclusive approach and included connecting the physiotherapists' personal values with their professional practice, connection with their clients, and connecting their client's physical injury to their context, previous experiences and implications.

The identification and exploration of these four themes offer valuable insights and alternative avenues that could be used to promote different ways for physiotherapists to think and practice.

Table of Contents

CHAPTER 1: INTRODUCTION	1
Finding the Smile	1
Overview of Study	3
Thesis Structure.....	7
Literature review and grounded theory	7
CHAPTER 2: BACKGROUND	9
Introduction	9
Physiotherapy's Biomechanical Legacy.....	9
Musculoskeletal Physiotherapy in Private Practice	11
Changing Healthcare Models and Priorities	13
Current Physiotherapy Practice	17
Conclusion	20
CHAPTER 3: CRITICAL REVIEW OF HEALTHCARE FRAMEWORKS IN THE PHYSIOTHERAPY LITERATURE	22
Introduction	22
General Overview of Physiotherapy Literature	22
Comparative Framework used to Critique Literature.....	24
Current Healthcare Frameworks in the Physiotherapy Literature	25
International Classification of Functioning, Disability and Health (ICF)	26
Person-centred.....	29
Biopsychosocial model.....	34
Embodiment.....	38
Other Healthcare Concepts in the Physiotherapy Literature	42
Healthcare Models not in Physiotherapy Literature	43
Te Whare Tapa Whā.....	43
Conclusion	45

CHAPTER 4: METHODOLOGY	46
Introduction	46
Selecting a Methodology: Grounded Theory	46
Constructivist Grounded Theory as described by Charmaz.....	47
Purposeful Sampling	52
Participant Selection	52
About the participants	53
Data Collection	54
Data Analysis	57
Initial coding.....	57
Focused coding.....	58
Theoretical Sampling.....	59
Constant Comparative Analysis	60
Memoing	61
Theoretical Development.....	61
Theoretical Saturation.....	62
Ethical Considerations.....	63
Ensuring Rigour	66
Conclusion	67
CHAPTER 5: RESEARCH FINDINGS	68
Introduction	68
Re-negotiating the Boundaries	68
Drivers for Change.....	70
Searching for More	74
Expanding the Scope of Practice.....	79
Splitting the Scopes of Practice.....	81
Opening of Perceived Physiotherapy Scope of Practice	84

Realigning the Scopes of Practice	87
Practising within the New Boundaries	93
Conclusion	107
CHAPTER 6: DISCUSSION	108
Introduction	108
Authentic Practice	108
Power of Perception	112
Reflective Practice	115
Concept of Connection	118
Limitations of Study	121
Implications of Study	121
Summary of Discussion	122
Study Conclusion	122
References	126
Appendices	133
Appendix A: Participant Information Sheet	133
Appendix B: Participant Consent Form	137
Appendix C: Patient Information Sheet	138
Appendix D: Patient Consent Form	139
Appendix E: Access Permission Form	140
Appendix F: List of Indicative Questions for Interviews	141
Appendix G: AUTECH Ethics Approval Letter	142
Appendix H: Māori Research Facilitation Committee Approval Letter	143

List of Figures

Figure 1. Health links with the wider environment	16
Figure 2. General overview of healthcare frameworks in the physiotherapy literature	23
Figure 3. Developed framework aligning four elements of social research to the four concepts found in a healthcare framework.....	25
Figure 4. Interactions between the components of ICF	26
Figure 5. Visual representation of Person and Whānau Centred Care Model	33
Figure 6. Te Whare Tapa Whā.....	44
Figure 7. Diagram after the first interview	62
Figure 8. Re-negotiating the boundaries	69
Figure 9. Drivers for change	74
Figure 10. Searching for more.....	79
Figure 11. Expanding boundaries of scope of practice	81
Figure 12. Splitting of scopes of practice	84
Figure 13. Opening of perceived scope of practice	87
Figure 14. Realigning the scopes of practice	93
Figure 15. Practising within the new boundaries	96
Figure 16. Learning humility: Shifting of perceived physiotherapy role.....	99
Figure 17. Acknowledging the bigger picture	100
Figure 18. Finding connection.....	105

List of Tables

Table 1. Example of initial coding with gerunds	58
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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 of a university or other institution of higher learning.

Kirstin Jo Glasgow

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CHAPTER 1: INTRODUCTION

Finding the Smile

My mother was a physiotherapist, graduating with a diploma in the 1950's. Being the last of five children, by the time I came along her career had mostly given way to raising a family, but somehow, she was still always a physiotherapist. I remember her physiotherapy stories of working in the military hospital and putting soldiers through such gruelling exercise regimes that they thought their Sergeant Major was less brutal than their physiotherapist. Then there were the stories of celebrations on the polio ward because Mr X had moved his big toe. But I think my clearest memory of my mother as a physiotherapist was at the age of about five, watching her proudly putting on her crisp white physiotherapy dress, almost ceremoniously pinning on her purple lapels and her physiotherapy badges. She was off to do her weekly visit at the local old-age home, where she walked with the women, supervised gentle exercises and massaged swollen ankles, all while talking about the latest royal wedding. This day she came home with a newspaper article that one woman had carefully cut out from the newspaper earlier in the week and kept for her, just because she knew she would find it interesting. I must have questioned her about why this woman had done this, for I remember her telling me that these ladies looked forward to her visits, which were often a highlight in their lonely lives. I distinctly remember her telling me, "your smile is half the treatment".

Years later and to the surprise of us both, I decided to study physiotherapy. Straight after graduation, I found a job as a musculoskeletal physiotherapist in private practice, mostly because I could get a job close to home while my mum battled her cancer. Contrary to my expectations, I fell in love with this field of physiotherapy. My mum and I had a lovely few years together sharing my work stories. Physiotherapy, especially musculoskeletal physiotherapy, had changed quite a bit since she had practised. We were now a profession in our own right, complete with a university degree and, to my mum's bemusement, patients no longer needed a doctor's referral to be treated by us. We were also allowed to mobilise the spine! My mum found these developments quite fascinating. Despite these changes, we still found common

ground in the patients. People hadn't changed, they still came to see us because they were in pain and looking for a safe space to come to heal.

Over my 18 years as a graduated physiotherapist, I have strived to become the best physiotherapist I can be. I have enthusiastically participated in ongoing professional development and also embarked on post-graduate studies. Despite this, I guiltily wondered why I had never experienced that 'halleluiah' moment that my colleagues seemed to have when they found 'the answer'. I never felt skilled enough or accurate enough with my diagnosis and mobilisations. It was also a little disturbing that the biggest 'thank yous' I received from patients, were not from the ones I fixed, but rather from those I didn't! Theirs had been the harder journey where we had struggled, tried different approaches and ultimately, they were discharged with a management plan. This really confused me; after all, I had failed, hadn't I? I hadn't fixed them. And yet the thank you cards still said: 'Thank you so much for all your time and trying so hard'.

As a more senior physiotherapist, I found that I was frequently given the 'difficult' patients, the ones with yellow flags who were 'non-compliant'. Once again, I was not fixing them, but I kept on being told that I was the first person that had truly listened to them and that I was a wonderful physiotherapist. This made me rather uncomfortable. It wasn't until I started managing junior physiotherapists that I realised the difference was not in my skills, but rather in the things I didn't write down in my notes: being approachable, friendly, interested and seeing the patient as a person with all the joys and sorrows and complexity that comes with that. But didn't all physiotherapists do this? Most of my colleagues did. If that were true, then why was it never acknowledged, defined or recognised as part of physiotherapy? Why was this never taught to us at university or at least not formally? Was it even part of physiotherapy? And what exactly was 'it'? It was these questions that started my journey into looking at what about physiotherapy is more than the body assessment and joint mobilisations. How do we define this 'more' and where does it fit into our scope of practice?

On this journey, I have found it fascinating reading about the history of physiotherapy, and how the profession has adapted and flourished into the respected profession it is today. I am proud of physiotherapy's accomplishments and reputable status. But I have also found it sad that our increasing focus on evidence-based practice has led to a loss of recognition of the importance of the more humanistic skills, especially kindness, compassion and empathy. I believe these are essential traits for *any* healthcare practitioner. One of my study participants summed up the essence of my study very insightfully:

"[There was a] programme on TV last night, where they said could a robot do your job? And I thought, I hope not. And it's almost like you're asking me the exact question of what is this that's not robotic? What is it that brings the person and the spirituality and the empathy and the 'people-ness' to it?" (Michelle, 1144-1150)

Physiotherapists have become skilled professionals in treating the biomechanics of the body, almost as if people were machines, but what about the skills that are not robotic? In this study I aim to shed some light on this unrecognised and often hidden side of physiotherapy practice and attempts to highlight where it fits into our current practice. It is my way of trying to find and acknowledge the importance of that smile in our treatment.

Overview of Study

This study seeks to understand how and why some physiotherapists incorporate a 'more than biomechanical' approach into their practice. Biomechanics is the study of the mechanics of a living body during a function, such as the forces exerted by muscles and gravity on the human skeletal structure when walking. However, in the context of this study, biomechanical goes deeper and also refers to the physiotherapists' philosophical way of viewing the body. A biomechanical approach draws on the biomedical model which is based on Cartesian dualism, where the mind and body are distinct and separate. It is an objective way of viewing the body as a machine separate from emotions and thoughts and unconnected to one's cultural or social environment (Nicholls, 2017). Conversely, 'more than the biomechanical' is, therefore, any philosophical view that is more inclusive than just viewing the body-as-machine. This is significant because the way a physiotherapist views the body will influence their

perception of what they believe their role as a physiotherapist to be and by extension impact how they will approach their physiotherapy treatments. This relation is the central supposition of this study.

Historically, physiotherapists adopted a biomechanical view of the body, which played an important role in defining physiotherapy's professional identity and position within the healthcare professions (Nicholls & Gibson, 2010). Nevertheless, in my experience working in the musculoskeletal field, mostly in private practice, I found my physiotherapy colleagues did not just treat the injured body part but rather went beyond this: they took an interest in their clients; they worked hard on forming a relationship with them, and they loved helping them achieve their goals. In many ways, this is where they, and I, found job satisfaction. However, this 'more' was never defined or theorised, and in my experience, seldom written about in the patient notes. Rather, it seemed to be skills that were implicitly assumed to be part of physiotherapy but never explicitly taught. It appeared to be something acquired in practice, either by the example of other physiotherapists or through natural propensity, as well as being shaped by practical experience of what worked and what did not. I also observed frustration amongst these physiotherapists that there was never enough time to pursue this other side of treatment fully. It was not recognised as a part of physiotherapy and therefore was not billable. Yet, these physiotherapists, myself included, seemed to think this 'more' was essential to delivering a meaningful, quality treatment. It was this contradiction between physiotherapy's traditional biomechanical approach and my personal experience as a practitioner that inspired me to undertake this research.

Interestingly, my exploration into looking at this 'more than biomechanical' side of physiotherapy raised more questions than it found answers. The biomechanical approach was well defined, documented and understood. However, this other side of physiotherapy was an ambiguous, unclear, grey area in both the physiotherapy literature and in physiotherapy practice. Indeed, Dalley (1999) identified that physiotherapists do not always record all the things that are important to them and if these non-physical components are not acknowledged or recorded, then their overall contribution to therapy cannot be evaluated. This study wanted to gain insight into

these non-physical components of physiotherapy practice and where they fitted into our scope of practice. The literature did not provide a definitive answer, but from my experience, I knew there were physiotherapists who were doing more than just treating the physical injury. I decided to look to these physiotherapists who treated patients with a 'more than biomechanical' approach and work to understand their journey toward their current approach and how and why they practised the way they did.

This exploration was carried out by using a grounded theory methodology. Grounded theory does not start from a prior theoretical understandings but rather asks the question 'what is happening here?' (Dew, 2007). It is a qualitative methodology that uses observation, interviews and other data to "explore the basic social or psychological processes of an experience" (Grant & Giddings, 2002, p. 17). This research project studied five musculoskeletal physiotherapists currently working in private practice that had been identified as having an approach that transcends the purely biomechanical. The study looked at how these physiotherapists constructed meaning and action along their journey toward a more inclusive approach in their physiotherapy practice. As this grounded theory approach lies in the interpretive paradigm, these findings were not just described but rather, the significance of the participants meaning and actions were interpreted, often in a way the participants themselves may not have been able to see (Grant & Giddings, 2002). Consequently, this constructed theoretical process illuminated not only how, but also why, these particular physiotherapists had adopted a more inclusive approach. It also gave a glimpse of what this approach encompassed for these participants.

This study is significant because there is increasing pressure, both externally from the changing government healthcare priorities and new economy of healthcare (Nicholls, 2017; Nicholls & Larmer, 2005; Reid & Larmer, 2007) and internally from within the physiotherapy community (O'Sullivan, 2012), to find a different way of thinking about and practicing physiotherapy. Because the biomechanical view of health is so ingrained in the physiotherapy identity, physiotherapists are finding it difficult to move away from this anchoring legacy (Nicholls, 2017). Additionally, although there are some more inclusive models in the physiotherapy literature, the profession itself does not

have an overarching philosophical framework outside of the biomechanical model (Nicholls, Reid, & Larmer, 2009). There has increasingly been a call for a robust theoretical framework to help the physiotherapy profession adapt to the challenges of a changing healthcare environment in a cohesive, unified way (Edwards & Richardson, 2008; Nicholls & Gibson, 2010; Nicholls, Reid, et al., 2009). Currently, there is no consensus as to what this framework should encompass.

Nicholls (2017) argued that it is only by physiotherapists being able to see themselves more clearly, can they know if and how they may need to adapt. Therefore, this study aims to contribute towards physiotherapists being able to see themselves more clearly. By studying physiotherapists that have already incorporated more than the traditional biomechanical approach into their practice, this study intends to gain an understanding of their journey, the processes they used, and the motivations behind their actions. Foster et al. (2003) stated that when we can start to understand why practitioners do what they do, we can start to see how we might influence these processes. This study contributes new information and insights to the conversation around promoting different ways of thinking about and practising physiotherapy. Ultimately, it provides valuable information toward the construction of a more inclusive framework which will enable the physiotherapy profession to rise to the challenges of changing healthcare priorities. Personally, I believe physiotherapists are a lot more than just biomechanical specialists, and it is only by recognising and acknowledging all of the different aspects that we bring to our practice, that we can truly reach our full potential.

This study asks the research question: *How are musculoskeletal physiotherapists integrating a 'more than biomechanical' approach into their private practice?* The aim of this study is to gain insight into how and why these particular physiotherapists have incorporated more than the biomechanical into their physiotherapy approach. It aims to identify the drivers and obstacles these physiotherapists experienced on their journey, their underlying motivations, and what processes they used to move toward a different way of practising. It aims to gain an understanding of what this more inclusive approach encompasses for these participants and how this aligns with the current physiotherapy standards and scope of practice in Aotearoa New Zealand.

Finally, it aims to explore ways the physiotherapy profession could learn from these participants' experiences in order to promote a more inclusive way for physiotherapists to think and practice.

Thesis Structure

This thesis consists of six chapters. In this first chapter, I have introduced my personal motivation, experiences and interests. It includes an overview of the study and its significance, the research question and aims of the study, and finally the thesis structure. Chapter Two explores the background of musculoskeletal physiotherapists in private practice in Aotearoa New Zealand. Chapter Three is a critical review of the current healthcare models found in the physiotherapy literature. Chapter Four outlines the selection and application of the grounded theory methodology used in this research study. Chapter Five presents the study's findings. Chapter Six explores the underlying themes from these findings and discusses them in relation to existing literature and possible implications for physiotherapy. This chapter includes the limitations and implications of this study and concludes with a reflection of the study's research question and aims and how the findings of this study answered these objectives.

Literature review and grounded theory

The place of the literature review in grounded theory is a contentious one. In most research studies, the literature review is carried out prior to data collection to help frame the research within existing knowledge. However, grounded theory does not aim to test a hypothesis, but rather seeks to develop a theory from the collected data (Rodrigo, Peter, Peter, & Karen, 2015). Therefore, in grounded theory, the literature review is not conventionally used as theoretical background but rather is seen as data to be compared to and analysed in relation to the constructed theory. Indeed, Glaser, one of the founders of grounded theory, strongly argued that the researcher should not read about the area under study until after the data collection and analysis, so as not to contaminate the emergent theory with any preconceived ideas (Charmaz, 2014; Rodrigo et al., 2015). However, it is acknowledged in constructivist grounded theory that it is unlikely and untenable that the researcher would not be familiar with relevant literature (Charmaz, 2014) and that the researcher will bring their own

personal experience and knowledge to the study (Rodrigo et al., 2015). Nonetheless, it is still important that the researcher's preconceptions should not be imposed on the data and its analysis but rather that the theory comes from the data itself (Rodrigo et al., 2015). To achieve this, Charmaz (2014) advocated that the researcher takes a critical, reflective stance toward the literature.

In this study, the initial review of the literature was done prior to data collection as part of the requirement for the research proposal and was used as a sensitising concept to provide a general sense of direction for the study (Rodrigo et al., 2015). The literature was then revisited after data analysis was completed. This latter, more reflective, critical review allowed for comparison of the literature in relation to the newly constructed grounded theory. Consequently this helped to clarify concepts, highlight significant points of convergence and divergence within the literature and ultimately shape the theoretical discussion that will show how and where this research study may fit into or extend the current relevant literature (Charmaz, 2014). For purposes of simplicity, only the final literature review will be presented in the both the Background and Critical Review of Healthcare Models in Physiotherapy Literature chapters.

CHAPTER 2: BACKGROUND

Introduction

This chapter explores the background of musculoskeletal physiotherapists in private practice in Aotearoa New Zealand. Physiotherapy's biomedical legacy is examined first; physiotherapy's adoption of the biomechanical model, how it has shaped the profession and its continuing influence on physiotherapy today. The structure that musculoskeletal physiotherapists in private practice in Aotearoa New Zealand work under is described, followed by a discussion on how this structure influences their physiotherapy practice. The changing healthcare models and priorities and the challenges facing the healthcare system in Aotearoa New Zealand are then explored. Finally, it will look at what is currently happening in physiotherapy and how the profession is being challenged to find a more inclusive way of practising.

Physiotherapy's Biomechanical Legacy

Physiotherapy is a well-established healthcare profession that has long been aligned with the medical community. Nicholls (2017) believed that the physiotherapy profession began in 1894 with the formation of the Society of Trained Masseuses (STM) in the UK. This society would later develop into the Chartered Society of Physiotherapy (CSP), which would, in turn, influence physiotherapy organisations around the world. This society arose in response to the massage scandals in late Victorian England and culminated in the Society of Trained Masseuses achieving legitimacy as a professional body by formalising a training and registration programme. This was achieved by courting medical patronage and developing a strict code of ethics. All of which was to ensure that masseuses were not confused with those "offering massage as a euphemism for prostitution" (Nicholls & Larmer, 2005, p. 56). Interestingly, some of the founding the principles of this society still have a profound influence on the physiotherapy profession today. Some of the more notable principles included: establishing standardised training programmes to promote a high standard of practice; examinations of the therapists knowledge and practical skills; relocation of practices into hospitals under the direct referral of medical practitioners; modelling their clinics after medical clinics i.e. clean and plain with few adornments

(Nicholls & Cheek, 2006; Nicholls & Gibson, 2010). However, the most significant legacy was that they adopted the medicine's approach to the body:

“Viewing the body-as-machine was a supremely important and highly effective strategy for the founders of modern physiotherapy practice, since it played a large part in establishing the profession's legitimacy” (Nicholls & Gibson, 2010, p. 500).

The founding society placed a focus on anatomy, kinesiology, biomechanics, physiology and pathology as core principles. This legacy can still be seen today in the emphasis placed on these subjects in current physiotherapy university curriculum (Nicholls & Larmer, 2005).

Medicine's biomedical approach draws on the Cartesian concept of dualism, in which the mind and body are seen as distinct and separate. Thus, the biomedical model of health focuses purely on biological factors and excludes any psychological, environmental and social influences. This model lies in the positivist paradigm and is based upon 'belief in a knowable world'. It focuses on *absolute truth*, in which one truth is legitimate no matter the context. Thus, “reality is objectively observable, fixed, predictable and generalisable” (Ward, Hoare, & Gott, 2015, p. 452). Therefore, in healthcare, a patient's symptoms can be objectively measured, causation can be identified, responses to treatment can be predicted, and this prediction can then be generalised to other patients with the same condition. However, as physiotherapy has always focused on the body in terms of its individual form and physical function, it can more accurately be said to have a biomechanical view of the body that views the body-as-machine (Nicholls, 2017; Nicholls & Gibson, 2010).

This biomechanical view is deeply ingrained in how physiotherapists are taught to think and view healthcare, and it still lies at the heart of physiotherapy's theoretical and practical approach (Nicholls & Gibson, 2010). This belief that clinical science is the cornerstone of its practice and the superiority of scientific proof is evident in the profession's use of clinical trials and evidence-based medicine to justify and promote its practice (Kerry, Maddocks, & Mumford, 2008). This legacy can be seen in the very physical and scientific content of any of the mainstream physiotherapy journals (Nicholls, 2017). Setchell (2017) argued that evidence-based practice reinforces the

idea of objectivity. This objectivity is visible in physiotherapy's practice focus on correcting a patient's impairments:

"... physiotherapy often strives to make 'abnormal' bodies more 'normal' by improving (e.g.) abnormal gait, range of movement, and patterns of breathing" (Setchell, 2017, p. 2).

To date, this biomechanical approach has served the profession well. It has been integral in defining the physiotherapy's professional identity and helped to establish physiotherapists as reputable and trusted treatment providers, respected by the public, medical community and the government alike (Nicholls, 2017; Nicholls & Gibson, 2010; Nicholls & Larmer, 2005). But as a consequence, "physiotherapy has been highly selective, concentrating on certain (largely biomechanical) understandings of the body, while marginalising others (cultural, economic, political, social for example)" (Nicholls & Gibson, 2010, p. 501).

However, physiotherapy has now encountered what Nicholls (2017) calls the "physiotherapy paradox": the very same biomedical approach that has afforded physiotherapy profession the status and security it currently enjoys actively discourages it from seeing the bigger picture and prevents physiotherapists from seeing and promoting health in other ways. Many physiotherapists are uncomfortable with the more imprecise concepts of a more holistic view of health that are so foreign to their mostly positivist training. The biomechanical view of health is so ingrained in the physiotherapy identity that physiotherapists are finding it difficult to move away from this anchoring legacy (Nicholls, 2017).

Musculoskeletal Physiotherapy in Private Practice

Musculoskeletal physiotherapy is one of the main fields of physiotherapy. As the name suggests, musculoskeletal physiotherapists specialise in treating disorders of the musculoskeletal system namely, muscles, bones, joints, nerves, tendons, ligaments, cartilage, and spinal discs. They utilise "the basic sciences of anatomy, physiology and biomechanics as background theory in the assessment and management of patients" ("Musculoskeletal/Orthopaedics", n.d.). In Aotearoa New Zealand, musculoskeletal physiotherapists work both in the hospitals, District Health Boards (DHB) and in private practice. In 2017, of the total 4,909 registered physiotherapists in Aotearoa New Zealand, 56% worked in private practice (Physiotherapy Board of New Zealand, 2017).

It is estimated that the majority of these private practitioners would be treating predominantly musculoskeletal conditions (Physiotherapy Board of New Zealand, 2017).

This research study specifically looked at musculoskeletal physiotherapists in private practice. This was partly due to my personal experience in this area, and partly because musculoskeletal physiotherapists working in the private sector work under a very different structure to physiotherapists working in hospital or District Health Board (DHB) settings. Firstly, physiotherapists in private practice habitually work outside the multi-disciplinary environment and often work autonomously. As such, they are not as exposed to other professions like nursing and occupational therapy that have a more holistic view of health and are “concerned not only with the physical body, but also the broader personal, cultural, environmental, spiritual and social dimensions of what it is to be human” (Nicholls, 2017, p. 8). Secondly, they work under a different funding structure. Private practice has two main streams of funding: the primary source in Aotearoa New Zealand is the Accident Compensation Corporation (ACC), which is a ‘no-fault’ accident compensation scheme for personal injury and covers any injury incurred in an accident (Accident Compensation Corporation). The secondary source of funding is private funding by the client. The extent of the ACC funding versus private funding depends on which ACC contract the private practitioner is working under and the type of conditions they treat. For example, a Stay-at-Work contract is fully funded by ACC, and the client pays no surcharge. However, under an EPN¹ or Regulations² contract, ACC will cover the majority of treatment for any accident related injury, usually with the client being required to pay a co-payment. Any non-injury related treatment is fully funded by the client.

This funding structure has influenced private practice in a number of ways, including how the practice is run. The majority of private practice physiotherapists are paid as contractors on a pay-per-patient basis and are often only paid for their physical time with the client. This creates a financial incentive to treat as many clients as possible in

¹ Under the EPN contract, a set fee is paid for a new or follow-up physiotherapy consultation, regardless of time spent with the client.

² Under the Regulations contract, a fee is paid as per the time spent with the client, calculated as a percentage of a set hourly rate.

a limited timeframe with little time allocated to non-funded activities like interdisciplinary communication and writing up of patient notes. As Praestegaard, Gard, and Glasdam (2015) noted: “practices are ruled by a neoliberal framework where cost-benefit considerations rank higher than patient-related individual problems and challenges” (p. 22). This funding structure has inadvertently influenced what treatment is provided. On the one hand, Praestegaard et al. (2015) noted that as a physiotherapy business, the client’s personal treatment preferences were often accommodated in order to keep the client happy as a non-satisfied client may result in no income. On the other hand, as the principal funder of private practice, ACC itself has also had a large influence on the physiotherapy profession in Aotearoa New Zealand. Perhaps one of the most prominent influences ACC has had has been the growth and emphasis placed on the treatment of acute musculoskeletal injuries in private practice (Nicholls, Reid, et al., 2009). As ACC is an insurer that funds treatment and rehabilitation of injuries caused by accidents, it is understandable why physiotherapy private practices using ACC as a primary funding source would focus on the treatment of acute rather than chronic conditions. However, as an insurance company, ACC places emphasis on treatment outcomes with the primary aim of returning patients to normal function and work as soon as possible. This, in turn, has reinforced the biomechanical view of treating impairment and ‘fixing’ the client so that they can return to work and once again be a valued member of society. Reid and Larmer (2007) have argued that this reliance on ACC as a primary funding source has narrowed the focus of delivery for musculoskeletal physiotherapy in private practice.

Changing Healthcare Models and Priorities

Healthcare globally is undergoing a paradigmatic shift with the emergence of changing notions of health (Higgs, Hunt, Higgs, & Neubauer, 1999). This is challenging the scientific biomedical model of illness that has dominated Western healthcare for the past century (Higgs et al., 1999). The dominant reductionist biomedical model has an assumed set of beliefs:

- health is defined as the absence of disease
- that all illness and symptoms stem from an underlying abnormality (or disease) in the body, with all symptoms being a result of that disease
- that mental and emotional issues are separate from the bodily function

- the patient is the victim of the disease and consequently a passive recipient of treatment (Wade & Halligan, 2004).

These beliefs led to the establishment the traditional role of the healthcare practitioner as one of diagnostician and provider of treatment to cure the disease or correct the abnormality for the mostly passive patient.

This shift in perception of health is moving away from illness to a wellness model of health (Higgs et al., 1999). This shift was reinforced in 2001, with the World Health Organisation (WHO) endorsing the International Classification of Function, Disability and Health (ICF) which depicted human functioning as a multi-dimensional concept that includes body structures and functions, personal activities and social participation (McPherson, Levack, & Kersten, 2005). Consequently, this wellness model of health is changing healthcare dramatically as healthcare systems are expanding to include preventive strategies, ancillary services and lifestyle programmes and policies in addition to medical intervention (Higgs et al., 1999). There is also a move away from curing of the individual patient presenting for services, towards the prevention of illness and strengthening the community's capacity to manage their own health (Higgs et al., 1999).

There is also a growing awareness of the significance of the social and economic determinants on health and illness. There is mounting evidence linking poor health with unemployment, poor living conditions, poverty, low quality of education, crime and discrimination (Keleher & MacDougall, 2009; Nicholls, Reid, et al., 2009). In Aotearoa New Zealand, this inequality in health status can be seen in the marked difference between Māori and non-Māori across almost all chronic and infectious diseases as well as injuries, together with higher mortality rates for Māori at nearly all ages (Ministry of Health, 2014a). Consequently, in order to improve these health inequalities, a population health approach has been promoted to address the socioeconomic, ethnic, gender and geographic inequalities (Ministry of Health, 2002). This population wellness approach is a more complex, multi-layered method to combat illness and improve health than the biomedical model.

Aotearoa New Zealand, like other healthcare systems around the world, is also facing

the challenge of changing health care priorities. Most significant is the ageing population (Ministry of Health, 2016b). This change in demographics means an increase in a dependent population, many of whom have long-term health conditions requiring healthcare and support (Nicholls, 2017). There has also been a rise in obesity, which is a large concern as this can lead to chronic health problems (Ministry of Health, 2016b). Such evidence reinforces that the focus of healthcare is moving from acute to chronic conditions (Higgs et al., 1999). As a result, the role of healthcare practitioners needs to change from one of treating illness to one that addresses the risk factors of ill health in order to prevent illness. The New Zealand Health Strategy (2000) reflected this change in focus by identifying 13 population health objectives, with the aim of improving overall health by reducing these risk factors and addressing the social inequalities. The New Zealand Health and Disability Strategy (2001) promoted these objectives by urging all health professionals to place a stronger emphasis on population-based medicine, using teamwork to collaborate more closely with their communities and reinforcing primary care as the basis for health care strategy (Nicholls & Larmer, 2005).

In response, the New Zealand Health Strategy (2016) has proposed a 'life-course approach' (see Figure 1) as a preventative approach that addresses risk factors and social inequalities (Ministry of Health, 2016a). This approach recognised that individual health is influenced by many factors, many of them outside the health system, such as education, housing and community. It also recognised that individual health is interlinked with other aspects of a person's life, "for example, parents who have good health and mental wellbeing can support the social development, educational outcomes and lifelong experiences of their children, and of their wider families and whanau" (Ministry of Health, 2016a, p. 4). The strategy also acknowledged that these factors were vital to one's health and wellbeing, ultimately addressing health from a multi-factorial perspective.

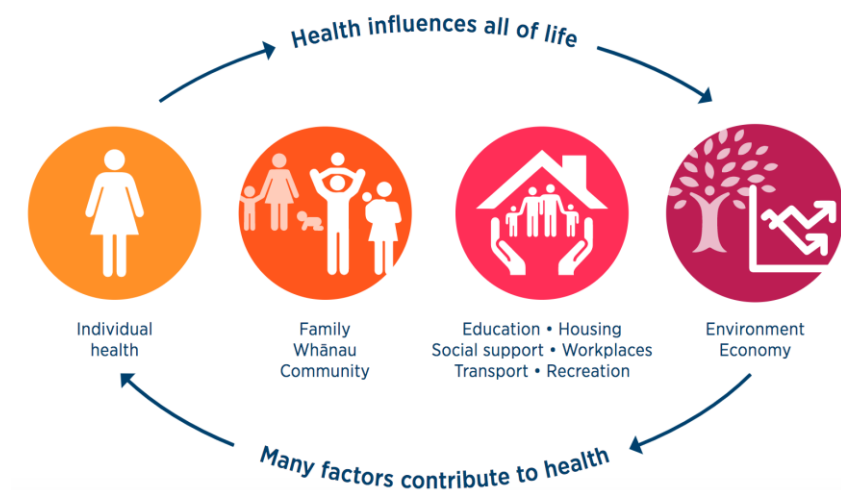


Figure 1. Health links with the wider environment
(Ministry of Health, 2016a, p. 5)

This multidimensional strategy is very different to the traditional biomedical model of treating disease. Yet, Wade and Halligan (2004) have argued that the western healthcare system's resources are still primarily allocated to the diagnosis and treatment of disease, and still act as if physical and mental health are separate. Certainly, a significant number of physiotherapists are still working within the traditional biomedical framework of "individualised care for a patient presenting with disease, illness or impairment" (Nicholls, Reid, et al., 2009, p. 111).

However, the shifting views of health and changing healthcare priorities is putting increasing pressure on physiotherapy to expand beyond its traditional one-to-one patient-therapist model (Nicholls & Cheek, 2006) to other more collaborative, community-based therapies. The physiotherapy profession is being challenged to re-evaluate its traditional role of treating illness, to a more preventative, holistic model of treatment. The New Zealand Healthcare Strategy has directly asked healthcare professionals to be adaptive and to think and act differently to meet the challenges of ever-changing healthcare (Ministry of Health, 2016b). However, physiotherapists have historically "largely ignored the social, political, cultural, economic, geographic and psychological dimensions of health and illness" (Nicholls & Gibson, 2010, p. 501). This raises the question as to whether physiotherapy can still afford to ignore this external pressure for reform. Nicholls (2017) passionately believed that unless physiotherapy "can become completely in tune with the changes and responsive to the new economy

of healthcare” (p. 14) over time the advantages that physiotherapy has accrued will whittle away and the profession will become increasingly marginalised.

Current Physiotherapy Practice

The call for reform and a more inclusive, multidimensional approach to physiotherapy has also come from within the physiotherapy community, especially in regard to chronic non-specific lower back pain. O'Sullivan (2012) argued that a multidimensional approach is not just an ideal but rather, an essential component of physiotherapy treatment. He stated that there is growing evidence of the multi-dimensional nature of persistent pain and that low back pain disorders specifically are a complex combination of physical behaviour, lifestyle, neurophysiological (peripheral and central nervous system changes), psychological/ cognitive and social factors. As such, he believed it is crucial that treatment of these disorders be considered within a multidimensional bio-psycho-social framework in order to be effective. He goes so far as to state that the single-dimensional biomechanical treatment approach may, in fact, exacerbate chronic disorders by reinforcing negative beliefs, avoidance behaviours and maladaptive movement patterns that set up a pattern of pain sensitisation and ultimately reinforce the disability (O'Sullivan, 2012). Edwards and Richardson (2008) concurred that the biomedical approach to chronic spinal pain has led to poor treatment outcomes. They believed this was due to the healthcare professional failing to acknowledge individual patient's values and that treatment required an understanding of the individual as well as the pathology.

However, one could argue that musculoskeletal physiotherapists have long recognised that psycho-social factors have an impact on treatment outcomes. Maitland's³ subjective assessment, a common tool used by musculoskeletal physiotherapists, recognises the importance of identifying any 'yellow flags' (Maitland, Hengeveld, Banks, & English, 2005). 'Yellow flags' are defined as the factors that increase the risk of developing, or perpetuating long-term disability and work loss, and include depression, pain 'catastrophising', and elevated fear-avoidance beliefs (Maitland et al.,

³ The Maitland Concept is arguably one of the most important developments in musculoskeletal manual therapy. Maitland developed assessment guidelines and mobilisation techniques for patients with neuro-musculoskeletal disorders that is still taught in universities today.

2005). However, Jones, Edwards, and Gifford (2002) argued that the musculoskeletal physiotherapy examination was predominately focused on identifying physical impairments in the neuro-musculoskeletal system and the environmental, stating that psychosocial factors were only considered “from the perspective of how they may be obstructing the normal recovery process” (Jones et al., 2002 p. 3). This superficial consideration of the influence of environmental and psychosocial factors did not take into account the patient’s perceptions and health behaviours (Jones et al., 2002). In other words, inquiring about a patient’s yellow flags is insufficient unless the impact of these factors is understood and incorporated into the management plan. This pattern was reflected in by a study by Zangoni and Thomson (2017) that examined physiotherapists’ knowledge and beliefs when assessing psychosocial factors in patients presenting with chronic low back pain. They found that although physiotherapists had an awareness of the role these psychosocial factors played in chronic lower back pain, and they recognised these factors in their assessment, they still relied upon the biomedical model of pain and disability in clinical patient management. Zangoni and Thomson (2017) concluded this was due to lack of knowledge and skills to confidently apply a more holistic approach to treatment and recommended more training was required.

Conversely, a study by Smart and Doody (2007) investigated the clinical reasoning by experienced musculoskeletal physiotherapists (all with at least ten years of musculoskeletal physiotherapy experience and formal postgraduate learning). They surmised that all of the experienced physiotherapists in this study did in fact demonstrate a multidimensional nature to the clinical reasoning of pain and “were found to recognise and acknowledge the importance of the cognitive, emotive, behavioural, attitudinal and sociological aspects of patients’ pain, suggesting that the multiple determinants of and influences on patient’s experience of pain were appraised for each patient” (Smart & Doody, 2007, p. 46). However, they were unsure if these finding would be consistent with physiotherapists with varying levels of experience and educational backgrounds, for example, undergraduates, novice clinicians and physiotherapists without postgraduate education. The Smart and Doody (2007) study would seem to suggest that physiotherapist’s clinical reasoning could be related to a clinician’s own experience i.e. what they learnt to do in order to achieve

good treatment outcomes. Certainly, this concurred with Nicholls and Gibson (2010) belief that physiotherapists often learnt to treat in a more embodied way in order to achieve meaningful results with their clients, but that this more holistic view of health and illness would have developed in spite their physiotherapy training, not because of it.

Interestingly, Jones et al. (2002) believed that a physiotherapist's clinical reasoning⁴ was directly related to their own perception of health and disability. Certainly, Foster and Delitto (2011) found that the "attitudes, beliefs, and treatment orientation of healthcare professionals are associated with the advice they give to patients as well as the choice of interventions" (p. 793). This led them to ask the question as to "whether, and to what extent, these attitudes, beliefs, and behaviours of [physiotherapists] are modifiable?" (p. 793). They concluded that the growing research showed that a physiotherapist's beliefs and attitudes about lower back pain could be changed but achieving and sustaining meaningful changes in practice behaviour is more difficult. However, they did not expand on why lasting changes were hard to achieve. Similarly, Domenech, Sánchez-Zuriaga, Segura-Ortí, Espejo-Tort, and Lisón (2011) looked at the impact of both biomedical and biopsychosocial training sessions on the attitudes and beliefs, and recommendations of health care providers in regard to low back pain. They concluded that it was possible to change students' behaviours through modification of their beliefs and attitudes regardless of the past knowledge.

So, how are physiotherapists currently practising? There is certainly extensive agreement in the literature that musculoskeletal physiotherapists, especially in private practice, are still bio-medically orientated (Barron, Moffett, & Potter, 2007; Edwards & Richardson, 2008; Nicholls & Gibson, 2010; O'Sullivan, 2012; Smart & Doody, 2007). However, there is growing literature that suggests that many physiotherapists have, or are attempting to, adopt a more holistic approach to treatment (Barron et al., 2007; Edwards & Richardson, 2008; Jones et al., 2002; Kidd, Bond, & Bell, 2011; O'Sullivan, 2012; Smart & Doody, 2007). This raises the questions: how and why are

⁴ Jones et al. (2002) defined clinical reasoning as "the process in which the therapist, interacting with the patient and significant others (e.g. family and other health care team members), structure meaning, goals and health management strategies based on clinical data, client choices and professional judgement and knowledge" (p. 2).

physiotherapists adopting this more holistic approach and what does this approach encompass?

Nicholls and Gibson (2010) observed that the emergence of practice models that promote the idea of a more inclusive type of physiotherapy practice have occurred at a time when the profession is under pressure to reform. They believed that this indicated that the profession was seeking new approaches to practice with which to respond to the demands of future health care. This would suggest that physiotherapists are using health models as a means of finding a more inclusive treatment approach. This aligns with the emerging theme that physiotherapy “needs a philosophical and theoretical base for the development of relevant PT [physiotherapy] practice and research” (Wikström-Grotell & Eriksson, 2012, p. 429). It also reflects the argument that without a robust theoretical framework, the profession may find it almost impossible to move forward in united, consistent way (Edwards & Richardson, 2008; Nicholls & Gibson, 2010; Nicholls, Reid, et al., 2009). Certainly, there is abundant physiotherapy literature advocating different healthcare models and approaches but little consensus as to which framework is best suited for the physiotherapy profession. In the next chapter, I explore the different healthcare models and approaches found in the physiotherapy literature and critically review them in relation to physiotherapy practice.

Conclusion

This chapter set the background to this research study by exploring the current context of musculoskeletal physiotherapists in private practice in Aotearoa New Zealand. It has highlighted how physiotherapy’s adoption of the biomechanical model has shaped the profession and continues to influence physiotherapy today. The biomechanical approach has been shown to not only have provided the profession with its current status but to have become so ingrained in the physiotherapy identity that physiotherapists are finding it difficult to move away from this anchoring legacy. The distinctive structure that musculoskeletal physiotherapists in private practice work under in Aotearoa New Zealand together with this influence on physiotherapy practice has been explained. The shifting beliefs regarding health and illness and the changing healthcare priorities have been discussed, as have some of the external and internal

pressures on physiotherapy to adapt its traditional practice model. Current physiotherapy practise has been examined, including the move towards using different healthcare models and approaches for a more inclusive approach to physiotherapy practice.

CHAPTER 3: CRITICAL REVIEW OF HEALTHCARE FRAMEWORKS IN THE PHYSIOTHERAPY LITERATURE

Introduction

This chapter critically reviews the different healthcare frameworks found in the physiotherapy literature. First, an overview of the physiotherapy literature will be given. Next, a framework will be presented that was developed for this research project as a tool to help assess and critique the proposed healthcare frameworks. The theories, models and approaches themselves will then be critically reviewed using this framework in order to assess their advantages and limitations, specifically regarding future application for physiotherapy. Lastly, for completeness, healthcare models not found in the physiotherapy literature will be briefly discussed.

General Overview of Physiotherapy Literature

The physiotherapy literature presented many different ideas on how physiotherapists do, could or should practice. One overarching consensus emerged from this review, namely that physiotherapy's biomechanical expertise should not be discarded, but rather that the limited focus be opened to include a more expansive view of health and illness. This finding was congruent with Nicholls and Gibson (2010) opinion that any future framework around which physiotherapy practice can emerge, needed to be both theoretically robust and include physiotherapy's historical expertise in the biomechanical field. However, there was no further agreement in the literature as to what this more inclusive future framework should encompass.

The literature proposing potential frameworks for physiotherapy fitted into two broad categories (see Figure 2): Firstly, the literature that examined how physiotherapists were currently practising. This literature used existing models or approaches to critique or explain their findings with regard to the approach taken or clinical reasoning process used by the physiotherapists. Secondly, the literature that presented arguments and ideas on how physiotherapists could, or should practice. There was a large body of papers that argued towards expanding current practice by using existing models and approaches and a smaller contingent that presented entirely new concepts and approaches.

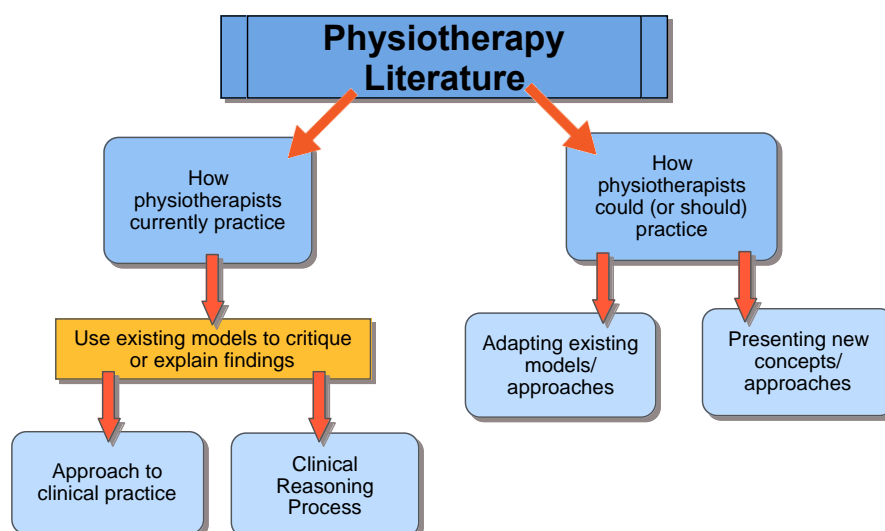


Figure 2. General overview of healthcare frameworks in the physiotherapy literature

The review of the different healthcare frameworks in the physiotherapy literature highlighted a marked disparity in the conceptual depth and philosophical understanding of these proposed frameworks. This was illustrated by the inconsistency and lack of clarity of the terminology used, mostly by the articles proposing the use of existing frameworks. The words ‘approach’, ‘model’, ‘concept’ and ‘theory’ were often used interchangeably despite them having very different meanings. And the phrases ‘holistic’, ‘patient-centred’ and ‘biopsychosocial’ were seen to be quoted in the same sentence, even though they each represent distinctly individual concepts. In contrast, the authors that presented new concepts and approaches were generally much more detailed, with clear definitions and well-presented theoretical understanding underpinning their proposed frameworks.

Nicholls (2017) argued that it is physiotherapy’s lack of “solid grounding in critical social studies and philosophy” (p. 9) that is limiting its ability to see itself more clearly. This narrow philosophical perspective was apparent in the way many of these frameworks were presented in the physiotherapy literature, including the differing depths of conceptual understanding. Upon reflection, before embarking on this post-graduate journey, it is unlikely that I would have been able to define these differences either.

Comparative Framework used to Critique Literature

Therefore, in order to fully critique the literature in this area, it was necessary to find a way of understanding and clarifying some of the inconsistencies: most specifically defining the terms *approach*, *model*, *concept* and *theory* and conceptualising how they differed and how they related to one another. By using the explanations of *models* versus *theories* as described by McLaren (1998) in his *Models in science* section of his article *A critical review of the biopsychosocial model*, and aligning them with Crotty (1998) four elements of social research, one can gain a simple yet comprehensive understanding how these concepts differ but yet, how they inform one another.

According to Crotty, in social research, a *method* is the procedure or technique used. The *method* is informed by the *methodology*. A *methodology* is described as the strategy, plan of action or process, which is in turn informed by the *theoretical perspective*. A *theoretical perspective* is the philosophical understanding of our view the world. It is in turn informed by the way we understand *what is* (ontology) as well as our understanding *what it means to know* (epistemology) (Crotty, 1998). Here Crotty (1998) example is followed with epistemology only used as the foundation “without complicating our four column schema by expressly introducing ontology” (p. 12).

McLaren (1998) described a *theory* as being an “idea, notion or concept” (p. 88). A theory is not grounded in the practical but is rather unembodied and abstract. A theory is a philosophical idea and similar to a *theoretical perspective* it is informed by *epistemology*. As McLaren (1998) stated, “The idea is based in and derived from a series of propositions (a belief system) regarding the nature of reality” (p. 88).

In contrast, a *model* is a practical representation that ‘models’ the *theory*. McLaren (1998) described a model as “the practical means of matching a theory to reality” (p. 88). Being a practical framework, a model has specific variables with parameters and therefore, has recognisable limitations. Like a *methodology*, a model is informed by a *theory*. As McLaren (1998) stated, “a model must be a formal and recognisable embodiment of its theory” (p. 88).

An *approach* is equivalent to a *method*. It is the “doing tools” (Giddings & Grant, 2009, p. 121) for achieving a task. The *method* or *approach* should be informed by the *methodology* or *model*.

Thus, these four concepts of a healthcare framework, *epistemology*, *theory*, *model* and *approach* have been aligned with the four elements of Crotty’s (1998) social research (Figure 3). Like Crotty (1998) four elements, each element separately represents a different concept with distinct characteristics and differing levels of depth of conceptual understanding. But in order to ensure rigour, each element should be informed by the one above.

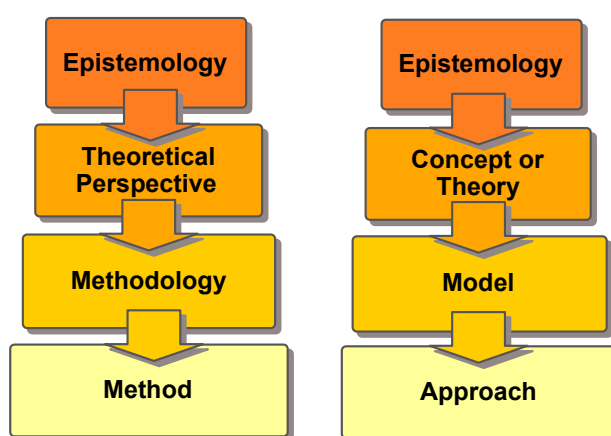


Figure 3. Developed framework aligning four elements of social research to the four concepts found in a healthcare framework

This comparative framework has been used to assess and critique the proposed healthcare frameworks and healthcare concepts currently found in the physiotherapy literature. It aims to do this in three ways: firstly, to make sense of the healthcare framework or concept itself; secondly, to assess and critique how it has been used in the literature; and lastly to assess the advantages and limitations of the healthcare framework specifically in terms of future application for use in physiotherapy.

Current Healthcare Frameworks in the Physiotherapy Literature

There are four prominent frameworks currently found in the physiotherapy literature, namely: International Classification of Function, Disability and Health (ICF), Person-centred, Biopsychosocial and Embodiment. The first three are existing frameworks

that have been applied to the physiotherapy context. The last is a new approach that has been proposed as a potential framework for physiotherapy practice.

International Classification of Functioning, Disability and Health (ICF)

The International Classification of Functioning, Disability and Health (ICF) was endorsed in 2001 by WHO following their more inclusive definition of health as a state of physical, mental and social well-being (Sykes, 2008). ICF was developed as a classification system that describes, classifies and measures function and health (Rundell, Davenport, & Wagner, 2009). It comprised of a set of three categories: *body functions and structures* (changes in physiological function and anatomical structure); *activities* (execution of a task or action); and *participation* (involvement in life affairs). Each component can be scored on a range from the positive aspect of *functioning* to the negative aspect of *disability* (Rundell, Davenport, & Wagner, 2009). The ICF can be used to describe the situation of each person with a range of functions within the context of environmental and personal factors, it then explores the links and relationships between the three categories (Sykes, 2008) as shown in Figure 4. These environmental and personal factors can be seen as either barriers or facilitators (Allet, Bürge, & Monnin, 2008). Escorpizo and Bemis-Dougherty (2015) described the ICF as a “common framework to understand health and to describe the impact of a health condition on functioning” (p. 200).

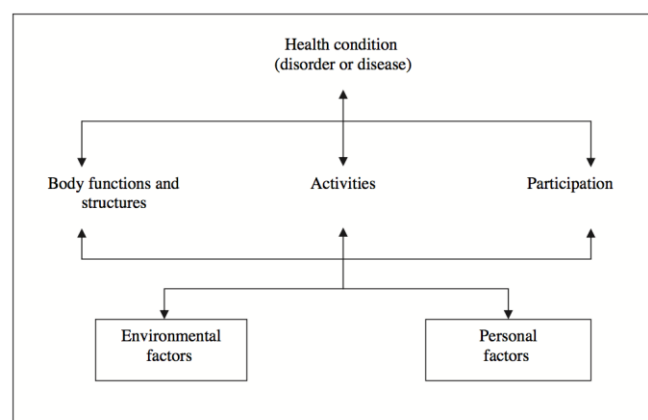


Figure 4. Interactions between the components of ICF (Sykes, 2008, p. 111)

Because the ICF is an international framework and uses standardised definitions, it has the advantage of being able to be used across countries, health conditions and healthcare settings (Escorpizo & Bemis-Dougherty, 2015). It can be used as a common framework aiding communication and facilitation between countries and across disciplines and thus, enhance multi-disciplinary practice and research (Allet et al., 2008; Sykes, 2008). Sykes (2008) believed that because the ICF uses easy language that patients can understand, they can be involved in the process and this could promote a more patient-centred approach. Additionally, the standardised information collected could potentially be used as data that could contribute to service planning and statutory reporting (Allet et al., 2008; Sykes, 2008).

The literature indicated that the ICF was being endorsed by physiotherapists as a more inclusive way of viewing health and illness. Certainly, Escorpizo and Bemis-Dougherty (2015) found evidence that the ICF was being used in assessment and measurement tools in physiotherapy clinics, research and teaching. Sykes (2008) maintained that physiotherapists have focused on disease, illness and disability for too long. The ICF could help promote a shift of focus away from the disease itself and place the emphasis on the individual. She believed the ICF could help physiotherapists to see the importance of the individual and thus treatment could be more patient-centred. She alleged that the ICF components of activity and participation were vital parts of the physiotherapy assessment “but are traditionally under-utilised in physiotherapy” (Sykes, 2008, p. 115). Allet et al. (2008) believed that the ICF offered a broader approach than the disability models previously used by physiotherapists. They then went on to show how the ICF could be applied as a framework to develop meaningful goals and interventions that focused on enhancing the patient’s participation in desired activities. Furthermore, by identifying the relationship between treatment goals, treatment activities and patient’s perceived problems, this presented the rehabilitation process more clearly, enhancing communication between therapists, patients and their families (Allet et al., 2008). Rundell et al. (2009) also endorsed the ICF as they believed it provided an “an effective framework for physical therapists to better understand a person’s experience with his or her disablement” (p. 82). They felt it could assist physiotherapists to acknowledge the patient’s personal, social and environmental factors and so aid in addressing potential barriers, determining needs,

and prioritising treatment selection. They concluded that the ICF “provides a method that considers biological, individual and social contributions” (p. 83).

However, there were some concerns in the literature as to the practicality of using the ICF in physiotherapy practice. Chaturvedi (2017) maintained that although many physiotherapists were familiar with the ICF, most did not have enough knowledge of the framework and its classification system to utilise or apply it in practice. She believed that the ICF constructs and classifications were just too big and daunting for individual clinicians to learn and concluded that the lengthiness of the ICF classification system hindered learning. Allet et al. (2008) agreed with this assessment.

Physiotherapists needed to develop their own lists with intervention categories, and this was a time-consuming process that required preliminary training. Thus, they queried the practicality of the ICF in the physiotherapy clinical routine. Escorpizo and Bemis-Dougherty (2015) agreed with this observation, adding that there were some issues around the reliability of ICF coding and assignment of the ICF qualifiers.

Moreover, there was inconsistency in the terminology used in the literature to describe the ICF. Chaturvedi (2017) clearly stated that the ICF included both a classification system and a conceptual *model*. Whereas Allet et al. (2008) argued that as the ICF was based on an integrative *biopsychosocial model* of functioning, disability and health, and as such, it was an *approach*. Whereas Rundell et al. (2009) and Sykes (2008) however, used a broader term, calling the ICF a *framework*. This confusion and often misrepresentation of the ICF has been documented before. Nicholls (2017) remarked that the ICF had been seen by many practitioners as a model around which person-centred holistic rehabilitation should be based, but clarified that the ICF was in fact, a classification system. As a classification system it can (and has) been used as a tool (or *approach*) by which to assess and measure physical function in terms of body functions and structure, activity and participation (Escorpizo & Bemis-Dougherty, 2015). But it is not, and has never claimed to be, a *model*.

As an approach, the ICF has limited conceptual depth. And while it may help physiotherapists to facilitate a more inclusive view of health and illness, this is arguably a relatively superficial shift as the ICF is still strongly grounded in the positivist

paradigm. Nicholls (2017) argued that by its very nature of categorising the consequences on injury and illness, the ICF exemplified the biomedical positivism in its use of normalisation (classifying normal versus abnormal) and objective verification as an external appraisal tool.

“The ICF promotes the idea that disability is a medical issue and a problem to be overcome. This marginalises the other ways of understanding the experience of disability and places enormous power in the hands of those who control and administer the classification system and benefit from its adjudications” (Nicholls, 2017, p. 186).

As such, the ICF has received considerable criticism from disabled people and disability activists for segregating disabled people and seeing the body of the disabled person as the problem while largely ignoring any cultural, economic, political and social causes (Nicholls, 2017). As Nicholls (2017) maintained, the ICF “pays little, if any, attention to the environmental and social determinants of health” (p. 186).

Person-centred

Person-centred is a term that is commonly seen in the healthcare literature and healthcare policies, but despite its popularity, it is a term that lacks a clear definition (Schmitt, Akroyd, Burke, Skaalvik, & Harty, 2012; van der Cingel et al., 2016; van Dulmen et al., 2015). ‘Person-centred’ has been used interchangeably with ‘patient-centred care’ and ‘client-centred practice’. But although Schmitt et al. (2012) argued that these terms are open to different interpretations and Goodrich (2016) believed that ‘patient-centred care’ has a broader definition than ‘person-centred care’, in the physiotherapy literature, there was no clear distinction between these terms. For completeness all these terms have been included in this literature review under the umbrella of ‘person-centred’.

In much of the nursing literature ‘person-centred care’ was described as a *model* of care, but in the physiotherapy literature person-centred was mostly referred to as an *approach*. There was ambiguity in reference to the *model* informing the person-centred approach. Kidd et al. (2011) and van Dulmen et al. (2015) believed certain aspects of the person-centred approach implied it was based on the biopsychosocial model. Schmitt et al. (2012) indicated that “the notion of [a] person-centred approach in rehabilitation is based on a different, more holistic paradigm of care” (p.23). These

vague notions indicated a lack of conceptual awareness about the person-centred approach. This observation is reflected in the nursing literature where Dewing and McCormack (2017) recognise practitioners' superficial understanding of the person-centred concept together with the challenges of working in non-supportive environments.

"... whilst practitioners have an outline appreciation of person-centeredness, they tend not to draw on empirically developed theoretical models, have an incomplete personal understanding of what person-centeredness" (p. 2509).

Smith (2016) argued that perhaps, at its heart, being person-centred is less of an approach, and more an ethical and moral recognition of the rights of the patient.

It was also difficult to ascertain what constituted a person-centred approach in the physiotherapy literature, as it was seldom well defined. Rather, different articles highlighted only certain aspects of a person-centred approach. Skaalvik commented that a person-centred approach placed the focus on the person rather than the disease or illness (Schmitt, 2012). Whereas, Kidd et al. (2011) felt that patient-centered care located the patient centrally in the professional relationship and thus, placed the emphasis on equal partnership between clinician and patient. This aligned with Dalley (1999), who believed that 'client-centred' practice originated in the field of psychotherapy with reference to client-centred counselling, where the client comes voluntarily and actively to seek help with a problem but without thought of surrendering their responsibility for the situation. Dalley (1999) and Kidd et al. (2011) both focused on the power shift that a person-centred approach could facilitate. The focus and power moved away from the clinician, who in the traditional biomedical hierarchical consultation model delivered a unidirectional approach to a mostly passive patient, to an active partnership between clinician and patient. However, Dalley (1999) highlighted that a person-centred approach was often problematic in the rehabilitation setting where the patients may not be there 'actively' or 'voluntarily' or 'on their own terms', for example, a hospital setting separates the patient from their normal social context. Kidd et al. (2011) expanded on this physiotherapist-patient relationship as they believed that building a good therapeutic relationship was key to promoting a patient-centred approach. They identified five categories that the patients themselves felt were important for a physiotherapist to have in order to build

this therapeutic relationship: ability to communicate; confidence; knowledge, expertise and professionalism; understanding people and an ability to relate; and transparency of progress and outcomes (Kidd et al., 2011).

Schmitt et al. (2012) had the most comprehensive description of what constituted a person-centred approach. They described person-centred care as “a multi-dimensional concept incorporating a number of commonly accepted principles” (p. 24). They identified four common themes occurring in the literature regarding patient-centred approaches to care:

- shared decision making and goal setting
- appropriate provision of information and education
- appropriate support, communication and respect
- delivering co-ordinated, well-organised care that ensures a smooth transition from one environment to another (p. 24).

Their study looked into *Perceptions of physiotherapy students of a person-centred approach in rehabilitation* and identified five themes. Firstly, empowering the patient to have control and choice within their treatment and be involved in the decision-making process. Secondly, the importance of sharing information and education for patients. Thirdly, seeing the patient as a person as opposed to an illness or disease. The fourth was individualisation of the interventions, where intervention was meaningful as well as case specific. This highlighted the importance of trust and respect in practitioner/patient relationship ensuring an active partnership. Lastly, family/carers/providers roles were identified as important factors in person-centred rehabilitation.

However, there was doubt in the literature as to whether a person-centred approach was practical in the current healthcare structure. Dewing and McCormack (2017) commented that nurses were working in contexts and cultures that were unsupportive of person-centeredness “meaning they cannot embody or practice in person-centred ways” (p. 2509). Schmitt et al. (2012) supported this opinion. They recognised that despite the notion of a person-centred approach becoming a theme in both health care policy and physiotherapy professional standards in the UK, it was unclear whether it was being adopted into practice: “there is evidence to suggest that some NHS

services continue to be paternalistic in their approach and fail to see the patient as a person” (p. 24). As such, the person-centred approach has been criticised by some professionals as “being a more rhetoric than a rigorous approach to practice” (p. 27).

Interestingly, Physiotherapy New Zealand (PNZ) has recently released a proposal for Person and Whānau Centred Care: a model for consultation (see Figure 5). This model aims to promote “collaborative healthcare focused on meeting the needs, values, and desired outcomes of individuals and whanau” (Darlow & Williams, 2018, p. 3). This model clearly outlined a set of four values: dignity, respect, empowerment and collaboration. It has identified a set of defined behaviours on which these values are enacted:

1. building therapeutic relationships on trust
2. seeing the patient as person
3. tailoring, organising and coordinating care around the person and whānau
4. using effective communication
5. sharing information
6. increasing health literacy
7. empowering the person and whānau
8. sharing power, responsibility and decision making
9. enabling and encouraging participation
10. seeing the person and whānau as partners; and
11. engaging in goal orientated care

PNZ also recognised four system-level components: health equality; fostering relationships with communities; stakeholder involvement with practice management service design and policy; and identifying and overcoming barriers, which “may not be under the direct control of each physiotherapist but all physiotherapists should influence as they are able” (Darlow & Williams, 2018, p. 3).

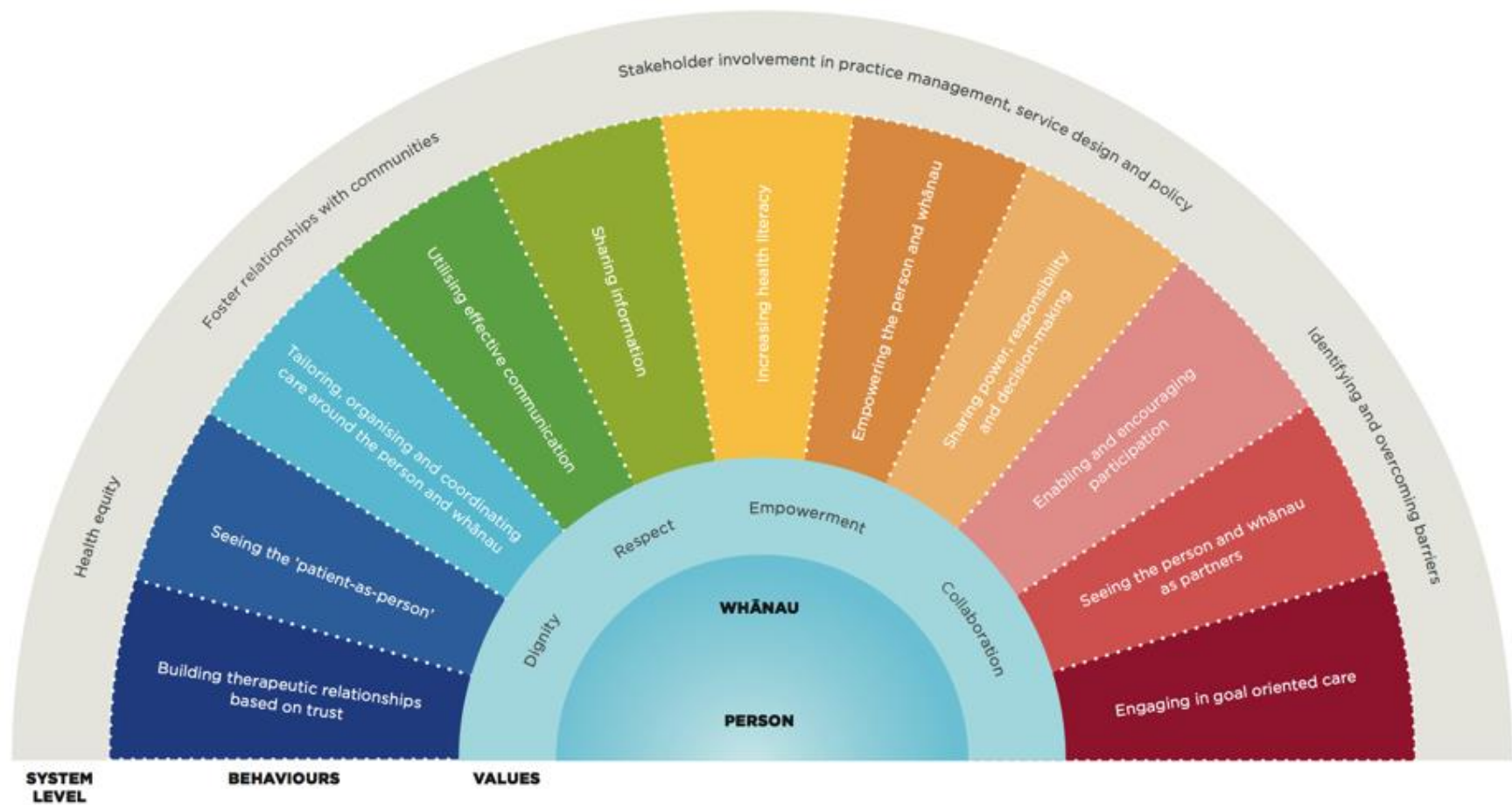


Figure 5. Visual representation of Person and Whānau Centred Care Model (Darlow & Williams, 2018)

This model is by far the most in-depth representation of 'person-centred' in the physiotherapy literature to date. It will be interesting to see if this proposed model will be developed further to include an underlying concept or theory and epistemology, and to what extent this model will expand physiotherapists' understanding and implementation of person-centred care in Aotearoa New Zealand.

Biopsychosocial model

The biopsychosocial model was first suggested by Engel from the field of psychiatry in 1977. This was a response to his criticism of the reductionist, dualist biomedical model (McLaren, 1998). Engel felt the biomedical model did not take into account human factors such as the patients' psychological status and social environment (McLaren, 1998; Searight, 2016). He argued that "intangible or not, human factors are not irrelevant but apply just as strongly in orthodox illnesses, such as diabetes, as in classic mental disorders, such as schizophrenia" (McLaren, 1998, p. 86). As such, he proposed the biopsychosocial model, using Von Bertalanffy's General Systems Theory (GST) as its framework, and thus insisted that the biopsychosocial model would be holistic, yet scientific and thus compatible with the biomedical model (McLaren, 1998; Searight, 2016). Consequently, the biopsychosocial model was firmly grounded in the positivist paradigm.

In the 1987 Gordon Waddell published an article on the use of the biopsychosocial model in back pain, which Pincus et al. (2013) argued, marked a fundamental change in the conceptualisation of back pain.

"The model suggests that back pain should more broadly understood than is possible from a biomedical perspective alone, because for many individuals the main problems lies not with the common and frequently transient experience of pain, but rather in their own and society's perceptions and reactions to pain" (Pincus et al., 2013, p. 2118).

Certainly, this call has been taken up by physiotherapists especially in terms of non-specific chronic lower back pain, who argue that simplistic single dimensional therapies have failed. As the understanding of the chronic pain and its complex, multidimensional nature unfolds, so does the need for treating more than just the biomedical pathoanatomical disorder (O'Sullivan, 2012). In relation to lower back pain, studies have found poor correlations between structural damage and disabilities

levels (Domenech et al., 2011). It has been argued that psychosocial factors can have greater influence on the transition from acute to chronic pain than physical factors (Domenech et al., 2011; Foster & Delitto, 2011; Oostendorp et al., 2015; Zangoni & Thomson, 2017). Consequently, the biopsychosocial model has gained increasing support as practitioners look beyond the biomedical model, especially for musculoskeletal conditions where there is no clear pathophysiological explanation for pain (Foster et al., 2003). Oostendorp et al. (2015) highlighted the literature in various journals that advocated a broader view of (chronic) musculoskeletal pain and reported that an increasing number of physiotherapy curricula around the world now emphasise the biopsychosocial model in their programmes.

But despite the biopsychosocial model being prolific in the health literature and frequently quoted in the physiotherapy literature, it was hard to find a clear definition. Zangoni and Thomson (2017) defined the biopsychosocial model in terms of an illness or pain experience, and its impact on the individual: “an interaction of somatic input (e.g. nociceptive stimuli), the psychological processes (e.g. beliefs, mood and coping repertoire), and environmental contingencies (i.e. social context)” (p. 71-72). Whilst Sanders, Foster, Bishop, and Ong (2013) used a more vague description: “The biopsychosocial model acknowledges the patient as a whole, their social, cultural and environmental context that shapes an individual’s response to illness, in essence, a patient-centred healthcare system” (p. 1). Domenech et al. (2011) undertook a study that compared the impact of biomedical and biopsychosocial training sessions on physiotherapy students, to assess the impact on their attitudes, beliefs, and recommendations of health care providers about low back pain. However, their description of what was included in the biopsychosocial training sessions was less a description of a biopsychosocial model and more an amalgamation of different ideas. It included: the concepts and relation of pain, structural damage and disabilities in low back pain patients; a brief explanation of the fear-avoidance model; the concept of yellow flags and recommendation to assess psychosocial factors in low back pain (Domenech et al., 2011).

Oostendorp et al. (2015) did a research study looked at manual physical therapists’ use of biopsychosocial history taking in the management of patients with back or neck pain

in clinical practice. Here they were looking at the history taking as part of the diagnostic phase of clinical reasoning and argued that it was “crucial to the orientation of the health problem of patients with (chronic) musculoskeletal pain in terms of (impairment in) bodily functions and structures, activity (limitations), participation (restrictions) and personal and environmental factors” (p. 2). This definition aligned to the International Classification of Function and Disability. In this study, they used the three dimensions of pain as defined in the SCEBS method⁵, which included the somatic or biological dimension; the psychological dimension, divided into cognition (catastrophic or helplessness cognitions, fear of pain, lack of self-efficacy or unrealistic treatment expectations), emotion (depression or anxiety) and behaviour (avoidance behaviour or pain resistance behaviour); and social dimension (maladaptive social responses to pain behaviour). Even though the interpretation of the social dimension was still an individualised, psychologically-driven interpretation rather than a truly sociological one, this was by far, the most clearly defined list of the biopsychosocial factors in the physiotherapy literature. Ironically, the study concluded that the history taking was very clearly biomedically biased with the psychological and social dimensions being inadequately covered.

This ‘reverting to the biomedical’ was not an uncommon theme and aligned with the findings by Sanders et al. (2013) when they looked at the biopsychosocial care and physiotherapists’ accounts of pain consultations. In this study, despite the call “for greater use of the biopsychosocial model to manage patients with low back pain” (p. 1) the findings showed that although physiotherapists recognised the importance of psychological and social components in terms of patient care, in routine clinical practice they mainly focussed on the physical issues. These physiotherapists felt more confident and competent to treat the presenting physical problems and believed they lacked the necessary skills to identify, understand or address the social and psychological factors. They often claimed that these problems fell outside of their immediate scope of practice. These findings were mirrored in the Zangoni and Thomson (2017) study that explored physiotherapists’ personal beliefs and knowledge

⁵ The acronym SCEBS stands for Somatic, Cognition, Emotion, Behaviour and Social and represents the three dimensions of the biopsychosocial model. This method developed by Van Spaendonck and Bleijenbergh (medical psychologists) for general practitioners less familiar with taking biopsychosocial history in patients with chronic pain (Oostendorp et al., 2015).

about the biopsychosocial model and how they assessed and managed psycho-social factors in patients that presented with chronic low back pain. This study showed that physiotherapists did recognise some social factors (family; work and social relations) and some psychological factors such as stress and negative attitudes, but few mentioned depression or anxiety and avoidance behaviours or expectations of patients. There was also no mention by these physiotherapists, nor the study itself, of any social determinants. Interestingly, the physiotherapists in this study perceived the biopsychosocial approach as a distinctly different approach to the biomedical, rather than part of the same model. In regard to their patient management, the study concluded that even though the physiotherapists did have a basic understanding of the biopsychosocial model they did not feel that they had the knowledge or skills to confidently apply this approach with their chronic low back pain clients, even feeling the psychosocial dimensions were often out of their scope of practice. Sanders et al. (2013) noted the expectation that physiotherapists practice a more patient-focused and broader biopsychosocial approach to care but also acknowledged that they were poorly prepared to address these challenges: “the most effective means of delivering a biopsychosocial approach is not well understood” (p. 2)

Pincus et al. (2013) highlighted some of the factors that were hindering the adoption of the biopsychosocial model in clinical practice, most notably: that current practice and payment structures offered little reward or opportunity to use a comprehensive biopsychosocial approach; and training remains biomedically-focused and profession-specific. They emphasised how social factors could also be problematic to address because they included factors at the individual level (such as employment, perception and reaction to their status and job satisfaction) and at a regional and national level (societal structure, for example, the time and ease of obtaining incapacity benefit). Searight (2016) agreed with this viewpoint. He argued that the biopsychosocial model does not lend itself to clinical practice, partly due to the structure imposed by financial and time constraints. Pincus et al. (2013) concluded: “In our view, the biopsychosocial model has not failed to explain back pain – what has failed is the mostly restrictive way it has been understood and applied” (p. 2121).

But, perhaps the problem is not in the understanding and application of the biopsychosocial model but the model itself. McLaren (1998) maintained that the biopsychosocial model “was not a theory, and it was certainly not a model” (p. 89). He argued that as Engel had neither defined the biopsychosocial model nor grounded it in an overarching *theory*, it cannot be called a *model*:

“Engel’s ‘biopsychosocial model’ amounted to no more than a rallying call in that direction. Unfortunately, Australian psychiatry seems to have mistaken the call for the reality of the model itself” (McLaren, 2006, p. 278).

Searight (2016) concurred that as a theory, the biopsychosocial model has limited epistemological value and without “a coherent, internally consistent theory, conducting meaningful research is, at a minimum, challenging” (p. 292). McLaren (1998) agreed: “Without an overarching theory to integrate the fields from which the data drive, association between differing classes of information are meaningless” (p. 91). McLaren (1998) acknowledged that Engel’s vision of a biopsychosocial model was a promise to fulfil a strongly felt need, that of uniting the different elements of human life in such a way as to legitimise a holistic approach, which, arguably remains as strong a need now as it did then. Searight (2016) hoped that with refinement, the biopsychosocial model may in time develop into “a more theoretically rigorous, clinically relevant and empirically testable integration of the multiple factors determining health and illness” (p. 296). However, McLaren (1998) was adamant that this was not possible, as one could not bring psychology and sociology into the current (positivist) scientific arena.

Therefore, despite its popularity, the biopsychosocial ‘model’ still has a limited positivist view of health and illness. Additionally, due to its lack of philosophical grounding and conceptual clarity, physiotherapists may find (and arguably have already found) the biopsychosocial ‘model’ a difficult concept to comprehend and apply in daily practice.

Embodiment

Embodiment is an approach that looks at a person from three distinct dimensions: the naturalistic view of the biological body (physical body); the phenomenological view concerning the subjective meaning given to a person’s lived experience (the self), and

the sociological view of the nature of reality, or the social, political, structural institutions that mediate one's behaviours and bodily experiences (society) (Nicholls & Gibson, 2010). This approach was first proposed by Nicholls and Gibson (2010) as a more holistic lens through which physiotherapy could view health and illness, the body, pain or movement and therefore as a potential framework that could be used to facilitate a whole-person approach in physiotherapy.

"At its heart, embodiment emphasises an orientation towards the whole person (an attitude towards the full richness of human life), and a rejection of singular reductionistic views of the body common to the biomedical sciences" (Nicholls & Gibson, 2010, p. 503).

Nicholls and Gibson (2010) maintained that physiotherapy has long marginalised the "subjective elements of human experience, the phenomenological dimensions of health and illness, and active engagement with the social institutions that bear upon the health and well-being of our patients/clients" (p. 501). They believed this embodiment approach offers a way of incorporating all those other dimensions in conjunction with physiotherapy's traditional biomedical model and thereby reflect what may already be found in physiotherapy practice.

"Our view is that embodiment is entirely complementary to physiotherapy practice, and that it reflects, in many ways, what many physiotherapists have learned to do in order to achieve meaningful results with their client" (Nicholls & Gibson, 2010, p. 504).

It was clearly stated that embodiment was "not a 'theory' or a 'model', but a lens through which physiotherapists might view their approach to practice" (Nicholls & Gibson, 2010, p. 503).

Only two articles were found in the physiotherapy literature that utilised embodiment. Both were theoretical articles that were a conceptual exploration of embodiment in relation to physiotherapy practice. My literature review found no studies using embodiment thus suggesting that embodiment is not currently used in physiotherapy research.

In the first article, Øberg, Normann, and Gallagher (2015) expanded on the embodied concept and proposed an *Embodied-enactive clinical reasoning model in physical therapy*. They reasoned that the body and movement are a fundamental focus in physiotherapy, but only by having a full conceptualisation of the body, can an

adequate model of clinical reasoning in physiotherapy be developed. Therefore, using an alternative understanding of the body based on phenomenology was proposed, to develop an enhanced model of embodied and enactive clinical reasoning. This phenomenological understanding of the body began with the distinction developed by Husserl and Merleau-Ponty between the objective body (body-as-object) and the lived body (body-as-subject) and highlighted the ambiguity of the body: “one both has a body and is a body simultaneously” (Øberg et al., 2015, p. 244). In their critique of current clinical reasoning models in physiotherapy, they stated that even the phenomenological approaches only saw the body as an object of concern, an object that is part of the narrative or an entity about which one communicates and thus an object that needs to be ‘fixed’. Rather, they argued that the body-as-subject “should be understood to be an agentive body, enactively engaged in the environment” (p. 246). This understanding of the body as a lived-body applied to both the patient and the therapist with the two-way interaction and enactive engagement both being important concepts of this model.

This is where this model differed to the embodiment approach as described by Nicholls and Gibson (2010). Instead of viewing the physical environment and social context through a social constructivist lens, Øberg et al. (2015) used the phenomenologically inspired approach of intersubjective social cognition. This ‘interaction theory’ recognised that both the physiotherapist and patient bring certain narratives to the physiotherapy sessions that act as a background for their expectations. “These narratives reflect both general social norms and specific patterns of expectations concerning clinical practice” (Øberg et al., 2015, p. 249). Therefore, this model still proposed a way of integrating the traditional biological view with another lens, but instead of intersecting the three dimensions of physical, self and personal as proposed by Nicholls and Gibson (2010), Øberg et al. (2015) used a purely enactive phenomenological view that “understands the body as simultaneously experienced, expressive and action-orientated, as well as biological” (p. 250).

In the second article, Hay, Connelly, and Kinsella (2016) conceptually explored embodiment as an approach to ageing bodies and health in physiotherapy practice. Their argument revolved around the limitation of biomedical and sociological

approaches alone and their belief that adding the extra dimension of lived body experience would contribute to the practice and understanding of ageing bodies and health in physiotherapy. In their exploration of the ontology of embodiment, they maintained that:

“Central to embodiment is the reinterpretation of mind-body relation through a focus on experience as lived through, and perceived, in the body. An embodied perspective purports that people access the everyday world through their bodies, prior to any intentional cognitive reflective thought” (Hay et al., 2016, p. 243).

They highlighted that physiotherapy provided healthcare by engaging with the physical body. As such, the authors felt that this care would better serve people if physiotherapists had a better understanding of embodiment and a greater consideration of “the ways people access and come to know the everyday world through their bodily perceptions and experiences” (p. 243). They argued that shared embodied understanding could support cooperative partnerships and promote truly person-centred practices that recognise patients as people. They also talked about the perspective of lived experience from the physiotherapy perspective and how the physiotherapists’ own experiences both as a therapist and a person can add an extra dimension to a treatment.

“Through intersubjective relationality, our own bodily and sensory lived experiences as physiotherapists and people may add a dimension of understanding or meaning to other peoples’ life worlds” (Hay et al., 2016, p. 245).

The strength of the embodiment approach is that each dimension is solidly grounded in its own theoretical epistemology. Unlike the biopsychosocial model, which tried to translate these different facets into the positivist paradigm, each dimension of the embodiment approach has its own distinct paradigm. However, the incompatibility of these individual epistemological paradigms ironically limits embodiment from becoming more than an approach. As McLaren (1998) stated:

“Theories must proceed logically from our ontology with no sudden discontinuities... A model must exemplify the theory in such a way as to permit its investigation within the common ontological stance” (p. 90).

By this definition, having multiple ontological and epistemological stances would prohibit embodiment from becoming a model or a theory. However, as an *approach*, it could still be useful to bring different perspectives to physiotherapy practice.

Other Healthcare Concepts in the Physiotherapy Literature

There are glimpses of innovative beginnings of other theory development appearing in the physiotherapy literature which focus on *concepts* and *epistemology* instead of *models*. Two examples of such ideas are presented below:

Wikström-Grotell and Eriksson (2012) argued for the need for *concept* determination as part of the basic research in physiotherapy. They reasoned that as 'movement' is an integral component of physiotherapy, it could be used as a "basis for a broader and deeper understanding of the complex [physiotherapy] reality and as a standpoint for further theory development and ontological reflection" (p. 429). Their paper described and reflected on 'movement' as a basic concept in physiotherapy both in relation to the socio-cultural environment, inter-dynamic aspects, as well as personal, intra-dynamic aspects. They wanted this paper to be used as the first step in theory development.

Alternatively, Shaw and DeForge (2012) presented an alternative *epistemology* for physiotherapists, namely that of bricolage. They advocated for physiotherapy embracing multiple epistemologies "discovering new ways of knowing and clinical reasoning strategies to provide a more holistic approach to physiotherapy practice" (p. 420). They described a bricoleur as a handyman or handywoman who makes use of many different tools to understand and complete a task and thus likened this to a physiotherapist who seeks knowledge from multiple perspectives and recognises the value in each type of knowledge. They argued that:

"Perhaps this perspective of multiple epistemologies, drawing on more types of knowledge instead of less, will help to move the physiotherapy profession toward a more holistic understanding of health and illness" (p. 427).

Both these articles have several themes in common. Firstly, that there is an increasing understanding of the complex nature of physiotherapy practice. Secondly, that a philosophical and theoretical base is needed for the development of physiotherapy practice and research. Thirdly, that it is important to relate philosophical theory to physiotherapy practice in order to bridge the gap between theory and practice. Finally,

that no single paradigm may be sufficient to describe the complex nature of physiotherapy (Shaw & DeForge, 2012; Wikström-Grotell & Eriksson, 2012).

This last point presents an interesting conundrum. For if a healthcare framework requires philosophical depth, but only a single epistemological perspective (McLaren, 1998) but no single epistemological perspective may be sufficient to describe the complex nature of physiotherapy practice (Shaw & DeForge, 2012; Wikström-Grotell & Eriksson, 2012), then perhaps, a healthcare framework comprising of *theories*, *models* and *approaches* may not be the appropriate overarching theoretical framework the physiotherapy profession needs to help them adopt a more inclusive practice. If not, then this suggests there may be a need to a different way of conceptualising this 'robust theoretical framework'.

Healthcare Models not in Physiotherapy Literature

It is interesting to note that there are several healthcare models that do not appear in the physiotherapy literature. For example, the socio-ecological model (SEM), a "framework for understanding the multiple levels of a social system and interactions between individuals and environment within this system" (Unicef, n.d., p. 1), is conspicuous in its absence. But probably the most significant in the Aotearoa New Zealand context is that there is no reference to any Māori healthcare models in the physiotherapy literature. The Māori philosophy towards health is based on wellness or holistic health models (Ministry of Health, 2014b). The Ministry of Health (2014b) website lists three Māori healthcare models, namely: Te Whare Tapa Whā; Te Wheke; and Te Pae Mahutonga. The most widely used and recognised of these three, the Te Whare Tapa Whā will be described and used as an example of Māori beliefs around health and wellbeing.

Te Whare Tapa Whā

This model was developed by Mason Durie and used the symbol of the wharenuī (meeting house) to represent the four dimensions of Māori wellbeing, namely: family health (whānau); physical health (tinana); psychological health (hinengaro); and spiritual health (wairua) (see Figure 6).

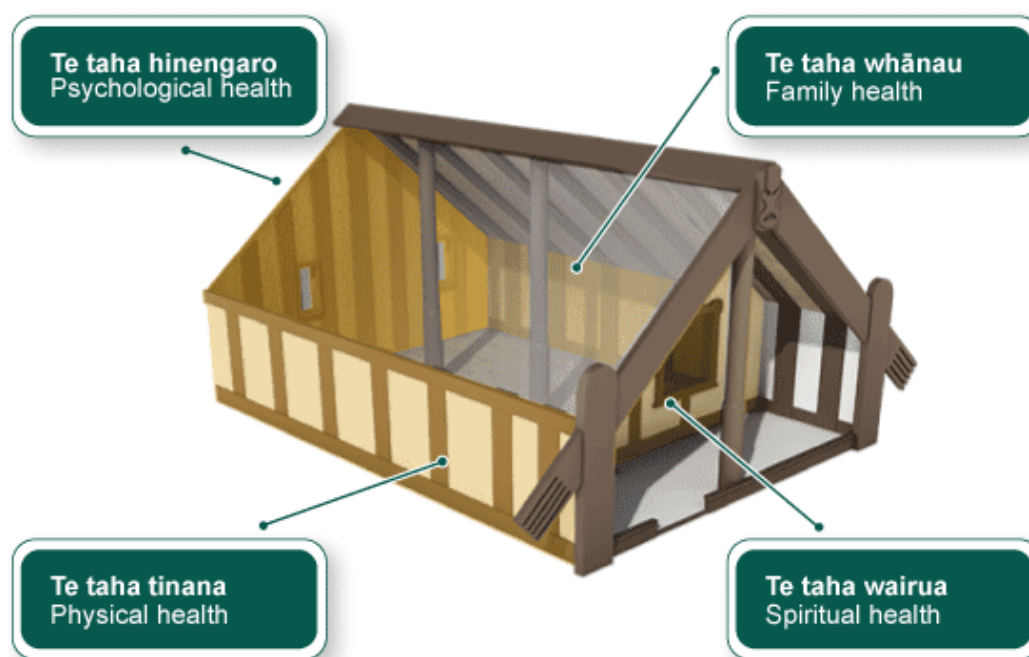


Figure 6. Te Whare Tapa Whā
(Pollock, 2011, p. 6)

In this model, the wharenui (meeting house) needs strong foundations, and each of these four sides (or cornerstones) need to be equal to support each other and hold the house up. Should any one of the four dimensions be damaged or missing, a person may become ‘unbalanced’ and subsequently unwell (Ministry of Health, 2014b).

Te Whare Tapa Whā healthcare model is reflected in He Korowai Oranga, New Zealand’s Māori Health Strategy, which was developed in 2014. He Korowai Oranga is an overarching framework that guides the government and the health and disability sector to achieve the best health outcomes for Māori. Pae Ora (healthy futures) is the government vision and builds on the three elements of Whānau Ora (healthy families), Mauri Ora (healthy individuals) and Wai Ora (healthy environments) (Ministry of Health, 2014a). This healthcare strategy is more reflective of the interconnective nature of Māori health and wellbeing especially regarding the role of the family. However, the spiritual dimension and its importance for Māori regarding their health and wellbeing is still not directly represented in this healthcare strategy.

“For many Māori modern health services lack recognition of taha wairua (the spiritual dimension). In a traditional Māori approach, the inclusion of the wairua, the role of the whānau (family) and the balance of the hinengaro (mind) are as important as the physical manifestations of illness” (Ministry of Health, 2014b)

Conclusion

This chapter has critically reviewed the different healthcare frameworks found in the physiotherapy literature. Each healthcare framework was assessed, using a framework developed for this study, with respect to their conceptual depth, their advantages and any limitations specifically regarding future application in physiotherapy. One common theme emerged from this review, namely that physiotherapists do not wish to discard their biomechanical expertise, but rather, that their focus be opened to include a more expansive view of health and illness. Some healthcare models not currently found in the physiotherapy literature were also briefly discussed, including the Māori healthcare model, Te Whare Tapa Whā. This critical review identified that there is a fundamental philosophical contradiction between the traditional healthcare framework of *theories, models* and *approaches* and the complex reality of physiotherapy practice. This incompatibility may indicate that these healthcare frameworks may not provide the overarching robust theoretical framework needed to help the physiotherapy profession adopt a more inclusive practice. Lastly, it suggested that perhaps a different way of conceptualising this theoretical framework may be needed. The next chapter explores the methodology and methods employed to ascertain how the physiotherapy participants in this study incorporated a more than biomechanical approach into their practice.

CHAPTER 4: METHODOLOGY

Introduction

This chapter presents the qualitative methodology and the methods of grounded theory employed in this research study. It begins by explaining why grounded theory is appropriate for this study's research question and aims. Then constructivist grounded theory as described by Kathy Charmaz is explored. The theoretical perspective of constructivism and the epistemological underpinnings of pragmatism underlying this version of grounded theory and how they pertain to me as the researcher are examined. The methods congruent with grounded theory and how they were used in this study are described. In particular, purposeful sampling, participant selection, data collection, data analysis: initial and focused coding, theoretical sampling, constant comparative analysis, memoing, theoretical development; and theoretical saturation. It also discusses rigour and the ethical considerations arising from this study.

Selecting a Methodology: Grounded Theory

Qualitative research is a holistic form of research that focuses on the way people make sense of their experiences and the world in which they live (Holloway & Wheeler, 2013). As such, the researcher does not try to find the truth of an experience but rather aims to understand what it is to be human and what meanings people give to the events in their lives (Grant & Giddings, 2002). Grounded theory is a qualitative methodology that is a popular choice with healthcare researchers as it "is useful to explore how people experience and act within their everyday world" (Ward et al., 2015, p. 450). Therefore, this was a fitting methodology to use for this study where the everyday practice of five physiotherapists was examined, including their experiences, the meaning they attached to events and how this shaped their practice.

Grounded theory methodology was also appropriate for this study for two other reasons. Firstly, grounded theory does not start from some prior theoretical understanding but asks the question 'what is going on here?' (Dew, 2007). This study looked at an area of physiotherapy practice that is not clearly understood or theorised. Therefore, grounded theory was an appropriate methodology as it requires no pre-

existing theoretical basis but rather it uses theoretical sampling and constant comparative method to construct a theory from the data, and that is thereby 'grounded' in the data (Charmaz, 2014).

Secondly, grounded theory is well suited to studying processes occurring over time. It uses observation, interviews and other data to "explore the basic social or psychological processes of an experience" (Grant & Giddings, 2002, p. 17). This study asks the question: *How are musculoskeletal physiotherapists integrating a 'more than biomechanical' approach into their private practice?* The purpose being to gain an insight into how, why and to what extent these particular physiotherapists have managed to incorporate a more inclusive approach into their physiotherapy practice. Understanding the process by which these physiotherapists have adapted their practice, and the meaning and action constructed on their journey will answer this study's research question.

However, the methodological choice for a research study must also be informed by the philosophical underpinnings of the chosen approach. The epistemology of a chosen approach should be the best 'fit' with both the research study's methodology and the research question. Additionally, Ward et al. (2015) argued that a research study's epistemology acts as a 'lens' through which research is approached but also reflects the researcher's world view. They believed that especially in health research, documenting both the ontology (what is known to be real) and epistemology (concerning the relationship between the inquirer and the known) is important to evidence a researcher's world view (Ward et al., 2015). For that reason, the next section will expand on the three main approaches to grounded theory and explain why the grounded theory approach as described by Charmaz (2014) has been chosen as the best 'fit' with both this study's research question and how it reflects my world view.

Constructivist Grounded Theory as described by Charmaz

Grounded theory methodology (GTM) was first introduced by Barney Glaser and Anselm Strauss in 1967 (Charmaz, 2014; Rodrigo et al., 2015). Since its inception it has evolved over the years and now has many different approaches based on the researcher's own epistemology (Ward et al., 2015). Rodrigo et al. (2015) described the

expansion of GTM through three main approaches: namely the 'traditional' or 'classical' GTM as elaborated by Glaser; the 'evolved' GTM as described by Strauss and Corbin and lastly the third approach of 'constructivist' GTM introduced by Kathy Charmaz. Rodrigo et al. (2015) related both the 'traditional' or 'classical' GTM and 'evolved' GTM to the positivist/post-positivist paradigm due to their assumption that an 'objective' theory exists independently from its discovery or perceptions: "[A] theory should be discovered or allowed to emerge without forcing preconceived ideas and assumptions on it, and thus, contaminating it with the researcher's subjectivity" (p. 4).

In contrast, Charmaz's 'constructivist' GTM shifted the focus to the researcher and acknowledged his/her influential role (Rodrigo et al., 2015). Charmaz's 'constructivist' GTM considers knowledge to be constructed in the processes of social interchange. Consequently, "the research process is contextualised in its social, cultural, and physical context and made aware of its bias and limitations" (Rodrigo et al., 2015, p. 5). This acknowledgement that the grounded theory is constructed by the interaction between the researcher and the participants and is the researcher's interpretations of the findings places this approach in the interpretive paradigm. Thus, research findings are not just described but rather the significance of the participants meaning and actions are interpreted, often in a way the participants may not have been able to see themselves (Grant & Giddings, 2002).

Constructivist grounded theory specifically looks at how people construct meaning and action in their particular situation (Charmaz, 2014). By studying what practical actions the participants had taken in their physiotherapy journey and the steps they had taken or choices they had made, it was possible to ascribe the meanings they attached to these actions. Furthermore, by establishing how these physiotherapists constructed their meanings and actions it was possible to deduce why they acted as they did. This approach answered not only the how, but the why in the research question.

The theoretical perspective of constructivism⁶ is underpinned philosophically by the epistemology of pragmatism. Pragmatism does not see reality as fixed but instead as indeterminate and fluid and open to multiple interpretations. Truth is not absolute but rather exists in relation to culture, society and historical context at the present moment but it may change at a later stage (Charmaz, 2014). Facts and values are not separate but linked. Pragmatism sees people as active and creative and “meanings emerge through practical actions and through action people come to know the world” (Charmaz, 2014, p. 344).

Therefore, constructivist grounded theory starts with the basic assumption “that social reality is multiple, processual, and constructed” (Charmaz, 2014, p. 13). These fundamental principles apply to both the participants and the researcher.

Understanding that there are multiple realities allows the researcher to acknowledge that each participant sees the world differently. Each participant's world view is shaped by their individual culture, values, experiences and social interactions. Their reality is constructed by the individual themselves through all their experiences, but also by their interaction with others (Ward et al., 2015). The knowledge and the meanings they ascribed to events is positioned in their culture and historical context (Ward et al., 2015) and changes over time.

Charmaz (2014) asserted that if one accepts these assumptions of constructivism, then one must also take into consideration the researcher's world view as an integral part of the research reality as this, too, is a construction:

⁶ It should be noted that there is some controversy as to whether the correct term for Charmaz's grounded theory approach is 'constructivism' or 'constructionism'. This confusion has stemmed from the interchangeable use of these two terms in the literature, even by Charmaz herself (Ward et al., 2015). Ward et al. (2015) wrote an article explaining the differences, in both meaning and use and argued that the correct term for Charmaz's approach is 'social constructionism'. However, comparing 'constructivism' as described by Charmaz in her 2014 book *Constructing Grounded Theory*, and 'social constructionism' as defined in the article written by Ward et al. (2015), no differences in the philosophical underpinnings could be discerned. Charmaz (2014) herself addressed this debate and stated that “social constructionism has evolved over the years and my position is consistent with the form it takes today” (p. 14). Therefore, for consistency the term 'constructivism' will be used in this thesis, even when referring to Ward's article.

“The constructivist approach treats research as a construction but acknowledges that it occurs under specific conditions – of which we may not be aware and which may not be of our choosing” (Charmaz, 2014, p. 13).

This view resonated with my own belief that truth and values are shaped by our history and cultural background but change over time as we are exposed to new experiences and social interactions which influence what we view as truth. As I engaged with my participants, heard their stories, explored the data, constructed my theory and reflected on this process, I experienced this co-construction of knowledge and my own view of truth and values shifted and changed. The research process and specifically the interaction with these five physiotherapists had significantly changed my perspective of physiotherapy practice:

“What I experienced in this journey has changed my outlook on physios- what we believe and how we negotiate the shifts in those beliefs. This is less a move from one model to another and more a negotiation to integrate our personal beliefs and values into our practice. This is a fluid concept with no destination but rather an amalgamation of all our experiences” (Memo 7 November 2017, 9am: My methodological journey).

In constructivist grounded theory the researcher is an integral part of the study, and unlike objectivist approaches to grounded theory, they do not have to remain as impartial observers (Charmaz, 2014; Dew, 2007; Ward et al., 2015). Instead, the researcher’s voice should not be excluded or hidden but should be clearly acknowledged. The researcher’s in-depth knowledge is used as the sensitising concepts to develop the initial ideas and develop frameworks and questions to pursue the topic of study (Charmaz, 2014; Rodrigo et al., 2015; Ward et al., 2015). However, Charmaz (2014) cautioned that sensitising concepts may be used to guide the inquiry but must not commandeer the inquiry. In this study, my identity as a physiotherapist combined with my knowledge and experience as a musculoskeletal physiotherapist in private practice, were used as sensitising concepts to shape the choice of research question and provide insight into how to approach this topic.

Constructivist grounded theory also acknowledges that the researcher co-constructs the theory development and subsequently the ensuing theory is also an interpretation (Charmaz, 2014). Charmaz (2014) maintained that:

“Rather, we are part of the world we study, the data we collect, and the analysis we produced. We construct our grounded theories through our past and present involvement and interactions with people, perspectives and research practices” (Charmaz, 2014, p. 17).

Constructivist grounded theory therefore does not eliminate the researcher’s subjectivity from the resulting theory, but instead allows the data and constructed theory to be prioritised over the researcher’s assumptions and prior knowledge (Rodrigo et al., 2015, p. 6). In order to maintain reflexivity, one does not disregard existing knowledge, but engages with it critically (Charmaz, 2014; Rodrigo et al., 2015).

Originally, Qualitative Descriptive methodology was thought to be a fitting methodology to explore this topic of a more inclusive approach to physiotherapy practice. However, in order to use a methodology in the post-positivist paradigm, first a set of factors that facilitated or hindered a more inclusive approach needed to be established. But there was no consensus in the literature as to what these factors might be. This area of physiotherapy was so ambiguous that a methodology was needed that did not start from prior theoretical knowledge. Thereafter, methodologies in the qualitative interpretive paradigm were explored, such as the hermeneutic phenomenology. This methodology looks at the ‘lived meaning’ or the participant’s interpretation of an experience (Grant & Giddings, 2002). But although this methodology would give an insight into a physiotherapists experience of working with a ‘more than biomechanical’ approach, it would not necessarily explain how this new approach was achieved. Post-modern approaches like Foucauldian discourse analysis could also be employed to answer this research question as Foucauldian discourse analysis focuses on the power relationships in society as expressed through language and practices. However, the underlying theoretical perspectives of critical social theory was too critical for this naive but optimistic notice researcher.

However, the methodology of constructivist grounded theory as described by Kathy Charmaz with its root in pragmatism, enabled the exploration of, not only how participants were practising a more inclusive approach, but also to examine the process by which they have arrived at this approach. This method gives understanding into the how and the why of their choices. The constructivist approach to grounded

theory also reflects this researcher's own epistemological world view. The following section describes the application of the grounded theory methods used in this study.

Purposeful Sampling

Grounded theory methodology advocates the initial use of purposeful sampling followed by theoretical sampling (Carmichael & Cunningham, 2017; Charmaz, 2014). The initial participants are purposively selected, not because they are a representation of the population but because "they are 'fit for the purpose' of answering the question about the particular field of study" (Carmichael & Cunningham, 2017, p. 60). The inclusion criteria for this study were musculoskeletal physiotherapists working in private practice in Aotearoa New Zealand who were identified, wither by themselves or others, as having a 'more than biomechanical' approach to treatment.

Participant Selection

Study participants were recruited via two methods, colleague recommendations and advertisement. Physiotherapists who were known to be interested in this study's topic were asked to recommend any suitable physiotherapists for the study. One prerequisite for this study established in consultation with the AUT Māori Research Facilitation Committee was the inclusion of a Māori physiotherapist in the selection criteria. Therefore, an invitation was posted in the Physiotherapy New Zealand (PNZ) website asking if any musculoskeletal physiotherapists working in private practice that identified as Māori would be interested in participating in this study. Three Māori physiotherapy participants replied to this invitation. The recruitment process took four months.

The nine identified potential participants were then contacted with some introductory information and a more detailed description of the study including the Participant Information Sheet (Appendix A). Two participants declined at this stage due to family and work commitments. The remaining potential participants expressed interest in participating in the study. The study was then discussed in more depth with each person individually including the selection criteria, the study purpose and the practical implications of the observation and interview process needed for data collection. Two

physiotherapists were then excluded, one no longer worked in private practice and the other was omitted for geographical reasons.

The remaining potential five participants were then given the Participant Consent Form (Appendix B), the Patient Information Sheet (Appendix C) and Patient Consent Form (Appendix D) and where relevant, the Access Permission Form (Appendix E). Once consent was received, dates for observation and interviews were then arranged. One participant had to withdraw at the last moment but recommended a replacement. The same process was followed with this new physiotherapy participant. The recruitment of participants happened over a four-month period. It was expected the more participants may have been needed for theoretical sampling, but further recruitment was not required.

About the participants

Five physiotherapists participated in this study. In order to help assess the fittingness and transferability of the findings of this study, some contextual information is provided about these participants (Chiovitti & Piran, 2003). This contextual information is based on identified factors that may promote a more inclusive approach to practice. The literature ascertained that the number of years of physiotherapy experience (Smart & Doody, 2007) and postgraduate learning (Domenech et al., 2011) may be factors that influence a physiotherapist having a more holistic approach. The working environment (rural versus urban or working autonomously versus in a multidisciplinary team), the physiotherapy speciality or focus and the funding structure were factors based on my personal experience of physiotherapists working with a more inclusive approach. To promote confidentiality and limit recognisability, these details are described in general terms.

The participants were all experienced practitioners, with a range from 7 to 40 years of clinical physiotherapy practice.

All the participants had university postgraduate certificates but with varying specialities. These included manipulative therapy, public health focusing on māori health, breathing performance and rehabilitation, mindbody health, continence

management, acupuncture and pain. One participant has a Masters in Health Science and one participant had a diploma in herbal medicine. All the participants had attended multiple courses and were advocates of continued learning.

The participants all worked in the North Island: one participant worked in Auckland; one in Hamilton; one in Palmerston North; and two in Wellington. Three of the participants owned their private physiotherapy practice, one as a sole practitioner. The other two participants were contractors in a larger physiotherapy private practice.

Of the five participants, three participants worked in a multi-disciplinary team, one specialised in pelvic health and one worked with a mindbody health focus. All participants had a combination funding structure of ACC and private clients.

Data Collection

Grounded theories may be built with diverse data ranging from field notes and interviews to information from records and reports (Charmaz, 2014; Timonen, Conlon, & Foley, 2018). Charmaz (2014) believed that grounded theory aims to gather 'rich data' that was "detailed, focused, and full" (p. 23) in order to build a significant analysis. This data helps to reveal the participants' "views, feelings, intentions, and actions as well as the contexts and structures of their lives" (Charmaz, 2014, p. 23).

The method employed to collect the data is shaped by the research question with the researcher's background assumptions and disciplinary perspectives used as initial sensitising concepts (Charmaz, 2014). As a researcher who is an experienced physiotherapist, I have had a lot of experience with different private physiotherapy clinics and treatment approaches over the years. This experience made me aware of the complex nature of physiotherapy practice, and the importance of understanding each participant's practice. An initial broad overview allowed all aspects of the practice to be studied. This ensured that personal bias was overcome and that the data shaped the subsequent theory development. Therefore, the data collected in this study included both observation of the physiotherapy clinics and the physiotherapist's interaction with their clients and interviews with the physiotherapists themselves. My familiarity with the physiotherapy environment and practice enabled the recognition

of certain aspects of this world both in terms of similarities and differences. However, it was necessary to remain open to what was seen and sensed so as not to force the data into a preconceived framework but instead follow leads that were defined in the data itself (Charmaz, 2014; Timonen et al., 2018). To identify any pre-conceptions and facilitate reflexivity, a pre-study interview was conducted by my supervisor prior to data-collection.

The observation component comprised of two aspects. Firstly, observation of the physiotherapy clinic: the physiotherapy building, its décor, the reception area and how patients were greeted and processed. Data was gathered via photographs of the clinic and its décor and fieldnotes. The traditional structure of physiotherapy clinics and their procedures have an unseen but symbolic value that implicitly shapes the physiotherapist-client interaction (Praestegaard et al., 2015). The purpose of this observation was to assess if the clinic and its processes had been adapted in any way to indicate the provision or promotion of a more inclusive approach to practice.

The second aspect was the observation of the physiotherapist's interaction with their patients. This observation was for a period of half a day with each participant. Data was collected in the form of fieldnotes and included client greeting, client treatment and treatment notes. This observation concentrated on the physiotherapist's approach and interaction with the client and did not include any information about the clients themselves or their specific condition. The purpose was to gain insight into how each physiotherapist's approach was manifested in their practical everyday physiotherapy work and whether this approach was represented in their documentation.

These observations were purposed to be used as data for this study. However, it soon became evident through these observations that these participants had not altered the clinics' structure or procedures in any significant way. In addition, their interaction with their clients and subsequent physiotherapy treatment and documentation, did not highlight any specific variations when compared to my previous experience of other physiotherapy practices. Rather, these participants worked within the current physiotherapy structure. Therefore, these observations were used as sensitising concepts, contextualising each physiotherapist's reality. They provided the opportunity

to note structures or actions for further clarification in the subsequent interviews, but ultimately, the observation component of this study was not included as data to be analysed.

Individual face-to-face interviews were conducted post-observation at a place and time of the participants choosing. These interviews were conducted in a comfortable space to facilitate a conversational atmosphere and allow the participants to develop their ideas in a reflective way (Charmaz, 2014; Timonen et al., 2018). In order to limit and contain any preconceived notions of the issues of greater significance for the participants, the interview was semi-structured with only a few open-ended questions. A list of indicative questions was prepared (Appendix F) but not followed exclusively as the direction of the interview was determined by the participants. This flexibility was designed to facilitate openness to the data. As Timonen et al. (2018) argued, “remaining open to the data involves being prepared to alter the research question(s) as a result of observations and insight gained when collecting data” (p. 6). Each interview began with the question: *“Can you tell me about your approach to physiotherapy?”*. Clarifying questions were then asked based on practice observation or participant’s remarks. For example, clarifying question were asked around importance of touch in Terri’s physiotherapy approach:

Researcher: You’ve mentioned touch a couple of times, that’s a very big part of your approach?

Terri: Yip

Researcher: Why?” (Terri, 295-298)

In later interviews, congruent with theoretical sampling, more theoretically directed questions were asked (Charmaz, 2014). Themes or concepts that were emerging from the data were introduced in the interviews to gain more insight into these topics. For example, the theme of ‘fear of judgement’ emerged in early interviews and so later participants were then asked explicitly about it:

Researcher: I’ve picked up that there’s frustration and I’ve picked up an element of fear.

Pam: *Fear of the unknown or fear of what going to happen into the future?*

Researcher: Fear of judgment.

Pam: *Right. Fear of being judged as a physio doing something different?*

Researcher: Mmm...

Pam: *Yeah, well, what is quite interesting because... (Pam 602-609)*

At the end of each interview, participants were offered the opportunity to add any information they felt was important but had not been covered in the interview. The interviews lasted an average of 80 minutes. Interviews were audio-recorded and then transcribed verbatim by the researcher.

Data Analysis

Grounded theory analysis as described by Charmaz (2014) involves two phases: initial coding followed by a focused coding, selective phase. This coding fulfils two criteria for completing a grounded theory analysis, namely: fit and relevance (Charmaz, 2014). A study 'fits' when the constructed codes and developed categories crystallise the participants' experience. Relevance is achieved when the constructed theory offers an insightful analytic framework that "interprets what is happening and makes relationships between implicit processes and structures visible" (Charmaz, 2014, p. 133).

Initial coding

Initial coding is a method in which segments of data are named with a label that "simultaneously categorizes, summarizes, and accounts for each piece of data" (Charmaz, 2014, p. 111). This in-depth line-by-line coding allows the researcher to stay close to the data while remaining open to all theoretical possibilities that could be discerned in the data (Charmaz, 2014). In grounded theory, the codes emerge from the data itself and are "provisional, comparative and grounded in the data" (Charmaz, 2014, p. 117). This active coding process scrutinises the data in order to define the meaning within it and is, therefore, an interactive and an interpretative rendering of the data. The initial coding aims to understand the participant's standpoint and situation as well as their actions.

In this study, the first three transcripts were analysed line-by-line using this initial coding method with gerunds (see

Table 1). Gerunds are action words that help give a "strong sense of action and sequence" (Charmaz, 2014, p. 120) and thereby detect processes in the data. This helped define the implicit meanings and actions indicated in the data and identify the

progression of the events from the participant's point of view (Charmaz, 2014). This method of studying the data in depth and paying particular attention to the participant's language, meaning and perspectives, was used alongside earlier observations and interactions with the participants. It created a more interactive analytic space where meaning could be gleaned from these fragments.

Table 1. Example of initial coding with gerunds

Transcript	Initial coding
Had lots of injuries. Had some really s**t therapists. Um, one thing that still to this day is in my brain: I had a really severe ankle sprain and got 16 treatments of ultrasound. So, I guess I don't want people to go through what I, you know, low quality stuff. So, giving back to the world in that way. Um, seen so many people who have had bad experiences with, not just physios but you know, allied health, chiro, osteo, manual therapists... just, probably, just to make a difference. To make a meaningful difference.	Having lots of injuries Having s**t therapists Having severe ankle sprain Getting 16 treatments of ultrasound Not wanting people to go through same experiences Giving back to the world Seeing people have bad therapeutic experiences Wanting to make a difference Wanting to make a meaningful difference

(Mike, 3770-377)

Focused coding

Focused coding is the second major phase of coding. In this process the initial codes are assessed and compared with each other and the data to distinguish specific codes that have greater analytic power (Charmaz, 2014). The goal of this process is to advance the theoretical direction of the study. It condenses and sharpen the initial codes, highlighting what is important in the emerging analysis.

The initial codes were compared with each other, and the data and certain codes that appeared more frequently or had more significance than other codes were identified. These focused codes were then once again compared with the data and other codes to see if they were adequate and held conceptual strength (Charmaz, 2014). Memoing and diagramming were used extensively to help with this process. By asking the questions: "*in which way might the initial codes reveal patterns?*" and "*which codes best account for the data?*" (Charmaz, 2014, pp. 40-41) certain themes and patterns were recognised.

These focused codes were then used as a framework for coding of the last two transcripts. Charmaz (2014) argued that focused codes could expedite the analytic work enormously without sacrificing the detail. This allowed flexibility to compare emergent codes against the data and to pursue the codes that were found to be relevant and discard those that are not (Charmaz, 2014). It also helped the further recognition of any preconceptions of the researcher regarding the findings. Focused coding moves the researcher out of immersion in the data and brings them further into the analysis (Charmaz, 2014).

Theoretical Sampling

Theoretical sampling is one of the core components of grounded theory and is used to build analysis and develop new insights (Timonen et al., 2018). Theoretical sampling occurs once the initial data has been collected and tentative theoretical categories have been developed from the data. The researcher then “seeks people, events, or information to illuminate and define the properties, boundaries, and relevance of this category or set of categories” (Charmaz, 2014, p. 345). Thus, the selection of further participants or data is not pre-determined but rather is decided as the research progresses and is guided by the concepts that emerge from the data (Carmichael & Cunningham, 2017; Charmaz, 2014; Timonen et al., 2018). It allows the researcher to “check, qualify, and elaborate the boundaries of your categories and to specify the relations among categories” (Charmaz, 2014, p. 205).

However, Timonen et al. (2018) recognised that the data collection and analysis does not always happen in tandem as several practical factors can impact timely recruitment and the subsequent timing of the analysis.

“For instance, it might be necessary to proceed with fieldwork as the opportunity to gather data presents itself regardless of whether this allows for plentiful time to engage in analysis” (Timonen et al., 2018, p. 5)

In the course of the study, due to family commitments and the timing of participant recruitment, all the participants were recruited, and the data collected, before in-depth coding and analysis could be undertaken. Therefore, to ensure that theoretical sampling was utilised whilst working within the confines of how this study progressed,

two practices were employed. Firstly, memos were written after each observation and interview as “memo writing spurs theoretical sampling” (Charmaz, 2014, p. 199). These memos enabled initial engagement with the data and the construction of tentative themes. These emerging themes were then used in the subsequent interviews with the aim of elaborating and refining the theoretical categories, discovering gaps and finding ways to fill them (Charmaz, 2014). Secondly, the constant comparative data analysis methods as described by Charmaz was strictly adhered to, analysing the data in subsequent order and consciously comparing later data to the previously collected data as the data analysis progressed.

Constant Comparative Analysis

Constant comparative analysis is a core method of grounded theory. It occurs when the researcher continually compares data to find similarities and differences (Charmaz, 2014; Timonen et al., 2018). Comparisons are made within each piece of data and across different data sets and across different times and contexts (Charmaz, 2014). This enables understanding of different facets of a participant’s experiences and ensures that any codes, categories, concepts, or theories must be brought back to, and justified, against the data (Timonen et al., 2018). Charmaz (2014) believed this comparison at each stage of analytic development helped to reveal the properties and range of emergent categories and therefore, raised the level of abstraction of the developing analyses. This practice of constant comparison, together with memoing, makes grounded theory “analysis a highly iterative process where core concepts and theory can only emerge after multiple ‘rounds’ of data analysis” (Timonen et al., 2018, p. 7).

Constant comparison analysis was employed throughout this study. In the initial stage of analysis, similarities, differences and patterns between the participants’ stories were sought. Later, the emerging codes and categories against the different contexts were compared. This constant comparison revealed different levels of understanding of the data. For example, the ‘fear of being judged’ had emerged repeatedly. This led to reflection on how this fear had affected the participants and what meaning and actions they had prescribed to these events. Each participant’s story was then re-examined using this code as context. Looking at this ‘fear of being judged’ from a

different perspective, revealed that as a result of this fear, the participants took action: some by 'isolating themselves', some by 'finding other communities' or a combination of both. This revelation was a significant factor in their journey. By moving away from where they felt uncomfortable and fearful, it allowed the participants a non-judgemental space in which to practice in a more inclusive way.

Memoing

Memo-writing is a crucial method of grounded theory. It is a pivotal intermediate step that promotes constant comparative analysis; it is a record of the path of theory construction as it tracks the researcher's thinking and decision making about the emerging theory; and it encourages reflexivity and identifies any preconceived ideas (Charmaz, 2014; Timonen et al., 2018).

Memo-writing was an essential component of this study's theory development and was used alongside constant comparative analysis, from the initial comparisons and conjectures about the connections in the data, through the codes and categories construction, to final process and theory development. It helped to clarify codes and categories but also prompted elaboration of the process, examination of assumptions, and identification of the questions or concepts that needed further investigation (Charmaz, 2014). It promoted more in-depth analysis of the data, codes, categories and constructed theory. Charmaz (2014) believed that memo-writing gives the researcher an "interactive space for conversing with yourself about your data, codes, ideas and hunches" (p. 162). As such, memos are the researcher's informal, and often spontaneous musings that serve as an analytical catalyst. Each memo written in this study was saved with the title, date and time of the reflection. They were saved under either general, thematic, methodological or personal sections.

Theoretical Development

In order to advance the theoretical development of the analysis, Charmaz (2014) advocated the use of an interrelated process of theoretical sorting, diagramming and integrating memos. Theoretical sorting is done via analytic memos as a way of organising the analysis and creating and revising the theoretical links that between the emerging categories (Charmaz, 2014). Diagramming offers a visual representation of

the categories and helps to sharpen the relationship among the theoretical categories. Diagrams can enable the researcher to see the “relative power, scope and direction of the categories in your analysis as well as the connections among them” (Charmaz, 2014, p. 218). Integration is achieved by writing integrating memos that help sort how the categories fit (or do not fit) together and make the relationships intelligible.

In this study, these three methods were used alongside each other throughout the analytic phase and helped shape the analytic frame for this study. Below is an example of a diagram drawn after coding of the first interview (see Figure 7). This initial diagram illustrated the direction of Terri’s journey and linked some of the initial codes and showed how the tentative emerging categories might relate to one another. More importantly, though, it highlighted gaps in the emerging theory and categories that needed more refinement, thus promoting theoretical sampling.

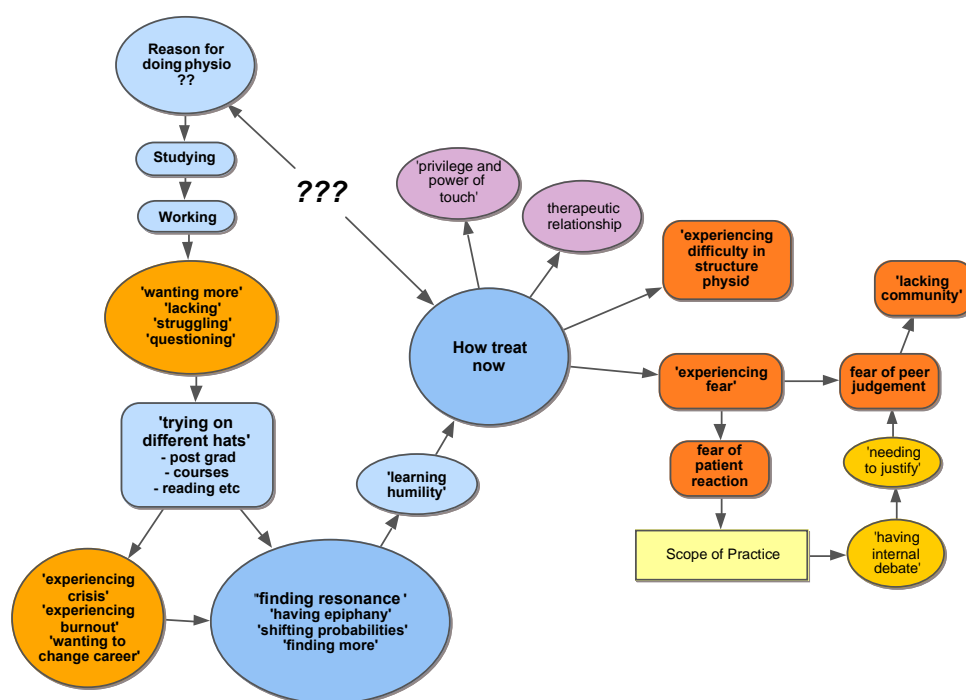


Figure 7. Diagram after the first interview
(Terri 7 July 2017, 11 am)

Theoretical Saturation

Ideally, the simultaneous cycle of data collection and analysis and theoretical sampling is repeated until theoretical saturation is achieved. Theoretical saturation is defined as:

“the point at which gathering more data about a theoretical category reveals no new properties nor yields any further theoretical insights about the emerging grounded theory” (Charmaz, 2014, p. 345).

Grounded theorists aim for theoretical saturation, but Charmaz (2014) acknowledged this is a controversial concept. She believed that theoretical saturation is a judgement made by the researcher and must take the situation of the research into account, such as running out of time or money. Indeed, Charmaz (2014) endorsed Dey (1999) argument that the term *theoretical sufficiency* may be more accurate. Theoretical saturation was achieved in this study as by the end of the analysis stage, no further categorial properties or theoretical insights about the constructed theory were found.

Ethical Considerations

Ethics approval to proceed with this study was granted by Auckland University of Technology Ethics Committee on the 16th of January 2015 (Appendix G). In obtaining consent, an examination of all the ethical considerations was conducted, including possible benefits and risks for the participants in this study. In addition, the principals of ethical conduct as outlined by Tolich and Davidson (1998) were adhered to, namely: doing no harm, voluntary participation, informed consent, avoiding deceit and confidentiality. As this study took place in Aotearoa New Zealand, the articles and principles of the Treaty of Waitangi were acknowledged, and implications for Māori were also considered. All of these ethical principles will be discussed in relation to this study.

The *Guidelines for Researchers on Health Research Involving Māori* stipulated that all health research conducted in Aotearoa New Zealand is of relevance to Māori (Health Research Council of New Zealand, 2010). Consequently, this study was presented to the AUT Faculty of Health and Environmental Sciences Māori Research Facilitation Committee on the 21 May 2016. In keeping with the Treaty of Waitangi's principle of participation I suggested that including a physiotherapist participant that identifies as Māori would be highly advantageous. In their letter supporting this study dated 25 May 2016 (Appendix H), the committee stipulated that a Māori physiotherapist be included in this study. Accordingly, a Māori participant was purposefully selected.

All potential participants received an information sheet (see Appendix A) outlining why the study was being conducted and what their involvement would entail. The sheet also outlined the potential risks and benefits to the participants themselves. This disclosure of information and the subsequent discussions allowed the participants time to make an informed decision as to whether they wished to take part in the study. The information sheet highlighted that participation in the study was strictly voluntary and that there were no consequences or repercussions if the participant wished to decline or withdraw from the study at any stage prior to the completion of the data collections. The participants all signed a Participant's Consent Form (Appendix B).

As this study also included observation of clinic and patient treatments further consent was required. If the participant worked for an employer, the owners of the physiotherapy clinic needed to permit access to their clinic. They were approached by the participants themselves, given the same Participation Information Sheet (Appendix A) and were required to sign an Access Permission Form (Appendix E) prior to data collection. Any patients treated during the observation phase of the data collection were also required to give consent. These patients were given a simpler information sheet (Appendix C) by the physiotherapist prior to treatment. This sheet introduced the researcher, gave them information about the study and what their participation would involve. It stressed that participation was strictly voluntary and that they could ask the researcher to leave at any stage during the treatment session. It reassured the patient that the researcher was purely there to observe the physiotherapist's approach and not about the patient, that their treatment would be treated with the utmost confidentiality, and no specifics about the patient or their condition would be recorded. The consenting patients signed the Patient Consent Form (Appendix D) at which stage the physiotherapist introduced the researcher to the patient. All the patients consented to the observation of their treatment sessions. During one session I was requested to leave the room at the request of the physiotherapist whilst an internal examination of the patient's pelvic floor was conducted.

All the observation and interviews were conducted at a time and place of the participants choosing. This was to ensure comfort, confidentiality and privacy.

However, the very nature of being observed carried the potential risk of making the participants feel self-conscious judged. In addition, these physiotherapists had a more inclusive approach to practice that could potentially be perceived to be on the edge of orthodox practice. There was therefore the potential risk that the participants may feel some trepidation disclosing this approach to another physiotherapist. As such, it was imperative that the participants were assured that any data collected would be treated with the utmost confidentiality with no judgement or repercussions personally or toward their professional career as a result of this study.

The participants were also made aware that they were not obliged to answer any question that made them feel uncomfortable and they could switch off the recorder at any time. They were given the opportunity to comment further on or retract any part of their interviews. Only one participant contacted me post interview, and this was to clarify a term she could not articulate during the interview. The participants were also offered counselling through AUT if they experienced any distress as a result of this study. They were also given AUT contact details if they wished to raise any concerns about the nature or conduct of this study.

Tolich and Davidson (1998) recognised that due to the descriptive nature of qualitative research, Aotearoa New Zealand has an added ethical challenge in its relatively small population size. Therefore, the ethical consequences of this smallness needed to be considered. For despite all care being given to the anonymity of participants, the participants or their environment may still be recognised (Tolich & Davidson, 1998). This is particularly pertinent to this study which involves an even smaller community, namely musculoskeletal physiotherapists in private practice. As such, this study only offered *limited confidentiality* which was made transparent before obtaining consent. However, every effort was still made to protect the privacy and confidentiality of the participants: all participant contact details and all data collected during the study were stored securely and were not be shared for any reason outside the scope of the study; no names, photographs or specific identifying features were used in the findings; and all participants were given pseudonyms as per good ethical practice (Tolich & Davidson, 1998).

Ensuring Rigour

The term rigour refers to the credibility or trustworthiness of the findings of a research study (Chiovitti & Piran, 2003). Various strategies were employed during this study to ensure rigour.

Firstly, rigour is demonstrated by showing the coherence between the research question and aims of the study with both the theoretical perspective of the chosen methodology and the associated methods used (Ballinger, 2006; Stanley & Nayar, 2014). During this study, I was fortunate enough to attend the Grounded Theory Support Group at AUT. The monthly discussions on the different approaches to grounded theory and their differing epistemological underpinnings, the practical exercises in coding and analysis and listening to other postgraduate students discussing their research findings were invaluable, as was the opportunity to present the study findings and receive feedback. This helped ensure coherence in the research study. In addition, further support was given by Dr Barbara McKenzie-Green, a senior lecturer at AUT and an expert on the grounded theory methodology over two sessions. The first session covered the differing grounded theory approaches and their philosophical underpinnings and how they related to the researcher. Her guidance helped in the choice of the grounded theory approach as described by Kathy Charmaz and informed my position as the researcher in this study. The second session encompassed the analysis of the data from initial coding to memoing and diagramming. These meetings were invaluable and helped guide the research process to ensure methodological congruency.

Secondly, in interpretive research, self-reflexivity is paramount to ensure the integrity and credibility of the researcher (Giddings & Grant, 2009). Therefore, to ensure that any pre-understandings about the study topic were identified at the beginning of the study, a pre-study self-interview was conducted by my supervisor (Giddings & Grant, 2009). This interview helped me to develop self-awareness and identify any assumptions that I brought to the research process (Rodrigo et al., 2015). Furthermore, this study used various reflexive strategies congruent with grounded theory including the constant comparative method, theoretical sampling and memo writing. This audit trail of the research process helped to ensure that “the analysis and

interpretation it involves, has been carried out rigorously, systematically and with care” (Ballinger, 2006, p. 235).

And lastly, an important validation of interpretive research is confirmability. This refers to whether or not “the findings are meaningful and applicable in terms of a reader’s own experiences (fittingness) or extend their understanding or personal constructions of a phenomenon being studied (authenticity)” (Giddings & Grant, 2009, p. 129). This study’s findings were presented at a professional development meeting to a group of musculoskeletal physiotherapists in private practice. It was encouraging that these physiotherapists could relate both the constructed theory and the participants’ experiences. This presentation also initiated a conversation about more inclusive practice and stimulated reflection of their own clinical practice, thus indicating that this study demonstrates both fittingness and authenticity.

Conclusion

This chapter has described how this study was conducted, with the aim of providing a transparent audit trail of how this study was constructed and implemented. Firstly, it presented an overview of the constructivist grounded theory methodology and the congruent methods used in this study. It then explained the choice of methodology in relation to the research question and study aims and described how the theoretical perspective of constructivism and epistemology of pragmatism ‘fit’ with this study and the researcher. All the methods employed in this study have been described, together with examples of how these methods were utilised. Lastly, rigour and ethical considerations in this study were discussed. The next chapter will present the findings of this study, namely the constructed grounded theory process called **Re-negotiating the Boundaries**.

CHAPTER 5: RESEARCH FINDINGS

Introduction

This chapter presents the findings of this study, namely the constructed process **Re-Negotiating the Boundaries**. It begins with an overview of this process and then describes how the findings will be presented. Each stage within this process is then explained using extracts from the data to illustrate the constructed categories.

Re-negotiating the Boundaries

The findings in this study present the grounded theory process which I have named **Re-Negotiating the Boundaries**. According to Charmaz (2014) a process consists of:

“unfolding temporal sequences in which single events become linked as part of a larger whole. Thus temporal sequences are linked in a process and lead to change. A process may have identifiable markers with clear beginnings and endings and benchmarks in between or may be more diffuse and less visible but nonetheless evident with comparisons are made over time” (Charmaz, 2014, p. 344).

Re-Negotiating the Boundaries illustrates the process that these physiotherapists experienced when incorporating a more than the biomechanical approach to their physiotherapy practice. It explains how and why these physiotherapists have moved away from their original ways of practising, their journey of searching for something else, the challenges and tensions they faced along the way, the internal debate they deliberated and finally how they negotiated and incorporated a new approach to treatment into their daily practice. This process aims to answer the research question: *How are musculoskeletal physiotherapists integrating a ‘more than biomechanical’ approach into their private practice?*

The process constructed in this study captures the common experiences of the participants but also acknowledges their individual journeys. Each participant described a different background with different belief systems. They had different motivations and influences and experienced different challenges over different time periods. Regardless of this diversity, the experiences they went through had common stages which are portrayed in the process. The stages for this process are outlined in Figure 8.

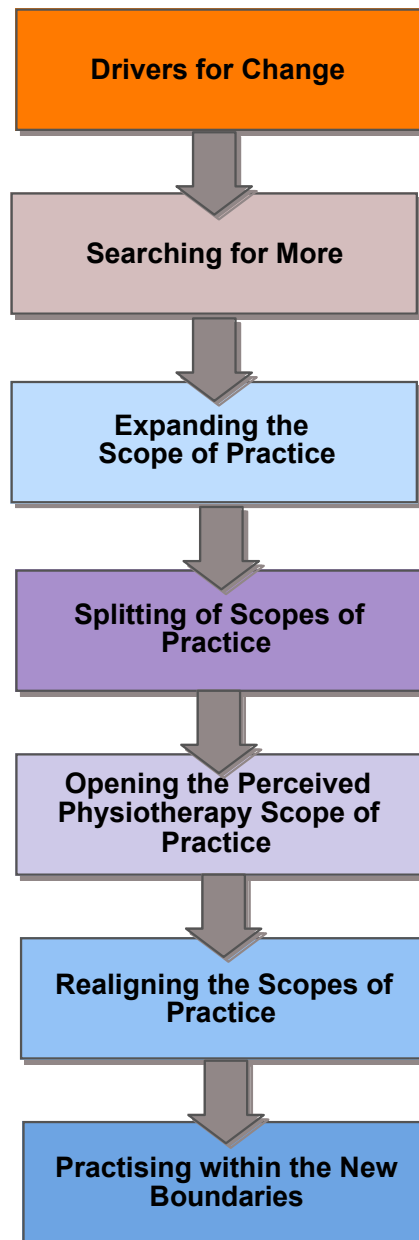


Figure 8. Re-negotiating the boundaries

The process itself is depicted in a clear linear progression. However, it was not necessarily experienced as directly as illustrated. Rather, there was movement back and forth between the stages often with stages overlapping. Similar to grounded theory's constant comparison analysis, as new events were experienced, they were analysed and compared to previous experiences and previous beliefs. The process also did not follow a specific timeline. Through this process, a theory or belief system was constructed and reconstructed over and over again as new experiences were integrated. Moreover, this process is ongoing as the participants continue to have new experiences.

In presenting these findings, each stage and their subcategories are described, followed by a quote(s) from the participant's transcripts. Illustrating the constructed theory using the participants own words, demonstrates that the resulting constructed theory is 'grounded in the data' as is congruent with grounded theory (Charmaz, 2014). To protect their confidentiality, each participant is identified using a pseudonym shown in brackets at the end of each excerpt. This name will be accompanied by line numbers indicating where the excerpt was taken from (e.g. Mike 25-26). If quotes were taken from different sections of the same interview, the quote sections will be separated by "...". and the subsequent quotes shown as follows (e.g. Mike 25-26, 30-31). In places, utterances that detract from the readability of the text have been removed, where it was possible to do this without altering the substance of the quote itself.

For ease of reading, the names of each stage of the process is written in bold text using upper cased first letters (e.g. **Realigning the Scopes of Practice**). The categories of these stages are written in bold italics using upper cased first letter (e.g. ***Minimising the External Tensions***), subcategories in bold italics using lower cased letter (e.g. ***isolating themselves***). Each of the stages of the process **Re-Negotiating the Boundaries** are described below.

Drivers for Change

In order for change to occur there needs to be some sort of friction or tension within the status quo. These frictions cause discomfort, and if the discomfort becomes strong enough, this will lead to a change. These forces are called **Drivers for Change**.

Each of the participants in this study experienced friction with the way they were practising. The words "struggled" and "frustration" were heard repeatedly in the interviews. Three **Drivers for Change** were identified: ***Not Fitting In, Being Frustrated with Biomedical Model*** and ***Struggling with the Structure***.

Some participants described the friction and internal dilemma they experienced when they felt like they were **Not Fitting In**. They saw themselves as different and did not feel like they fitted into the 'expected' physiotherapy mould.

Terri described how she used to feel that in order to be a good physiotherapist, she had to be more objective, and shut down the empathetic, intuitive, caring part of herself.

"Which maybe other physio didn't feel like they needed to do that but somehow, I felt like I had to shut down those bits that wanted me to listen more and open that up" (Terri 50-54).

Patricia spoke about how she felt different from her physiotherapy colleagues. She was an emotional person and in her experience, showing emotions was 'not done' in the physiotherapy world.

"Right from the beginning, I never felt comfortable even within my student colleagues. I don't really even know why now, I'm just a different sort of person. I'm a cry-ie sort of person that needs to be able to cry and get emotional and do all those things, and you just don't do that in physiotherapy" (Patricia 1147-1153).

She goes on to describe her experiences of how dismissive the musculoskeletal physiotherapy world could be if you were perceived to be doing anything other than traditional biomechanical physiotherapy.

"... But physiotherapy right from the beginning, I have always found have been very obstructive to anything slightly different... Basically, if you said anything that might be around holistic health or things that might be going on for women within obstetrics or the whole sort of post-natal thing or having babies, the men they'd shut you down straight away. It was just basically dismiss you and get on with what they were saying. It really was the way it used to be" (Patricia 620-626).

Frustration was also experienced with the biomedical model itself. **Being Frustrated with Biomedical Model** emerged when the experience with the client in the clinical setting did not always fit within the confines of the biomedical model.

Mike got frustrated with the limitations of the biomedical model. He felt it was often not able to explain what he was experiencing in his physiotherapy practice.

"I got bored of the model, I got bored of its simplicity, the mechanical model... I got frustrated that it wasn't answering my questions. I got

frustrated that my patients should have been getting better and they weren't. It was too simple; it was too reductionist... Because it just wasn't, isn't enough... Because I was just, had enough of the status quo. It wasn't enough" (Mike 143-149, 1098-1099).

Patricia got frustrated with the specificity of the physiotherapy biomechanical approach of treating. She found it so specific and was frustrated that it didn't look at the whole person. She did not think it was practical at all.

"I've always been real reluctant to do conferences and things because a lot of the stuff I just shake my head and go 'what the hell are you all talking about? Where are you all going with this?'... And they stand up at a physio conference with their paper that they've done the research on and it's all so specific... 'And we did the hamstringing with the da, da, da lateral knee' and I'm like 'oh my god, you're so nit-picky, just move the knee, think about what it's doing, get on with it'" (Patricia 583-586, 592-594, 704-708).

Terri found she achieved better results with her clients when her clinical focus wasn't so narrow. She felt there must be more going on than just her biomechanical reasoning and her physiotherapy mobilisations skills.

"And what I basically experienced was that the more skills I got, the more I expected myself to be more perfect and I took on more responsibility and then I basically started to not make such changes in the people. And interestingly, when I played with trying less and just having more of a laugh with my patients, and not kind of being so clinically diagnosing or so analytical about retesting all the time, people got better and sometimes got better more... And so, I started realising that there was more going on than just my skills and my keeping it really clinically narrow" (Terri 22-31).

This ***Struggling with the Structure*** highlighted the friction the physiotherapists experienced when their personal values and the structure of their professional practice did not align. This often came down to the fee-for-service business model of treatment in private practice.

Michelle had a real ethical dilemma around working in private practice. She felt that she was only treating the clients that could afford to pay and not necessarily those that needed it the most. This went against her personal values and caused her internal emotional turmoil.

"So, it was a real emotional, and what I thought at the time was an ethical, battle between seeing people and treating them and then, in a short amount of time, taking their money from them... I think I had

that whole battle of 'I'm not treating the people who I feel need it the most. I'm treating those that can afford to pay'" (Michelle, 3250-328, 334-335).

Pam felt that the private practice business model promoted competition between physiotherapy colleagues creating a segregated way of working that really inhibited any collaboration or team work. She found it hard to work in this environment as it went against her belief in integrated health care.

"And that was the reason I did it; I wanted it to be integrated... and that didn't work... One part was the business model, that it didn't work. I think the main thing was, was that it was, we were all working, but we were still all working in our silos. So, therefore, the idea of being integrated, it was really, really hard" (Pam 86-90).

Pam also observed that the current funding structure in private practice often left senior physiotherapists feeling undervalued and very frustrated.

"... there are so many good physios who are not being recognised, professionally, or being remunerated fairly for what they do. So, you can get extra qualifications, you can do so much more, but we're still paid the same rate as a new grad. So, therefore, we're losing a lot from the profession... And they've stayed in this area because they've seen the potential for it to be much broader but what that does then hinder, is you don't get the same recognition, and you don't get the same funding. So, I think there's a lot of frustration" (Pam, 492-496, 598-599).

Notably, many of the participants talked about how they thought of leaving the physiotherapy profession when their frustration with their way of practising got too uncomfortable.

Terri talks about how she thought of trying to find a career that better suited her personal interests and values.

"I certainly almost stopped physio and thought about doing, being a psychologist because I was so interested in the person's story and more of a talking therapy" (Terri 54-55).

Mike described a period when he was just fed up with all the tensions he was experiencing, but his passion for physiotherapy and his desire to make a difference kept him going. However, these frustrations also ignited his desire to make a change.

"For a while I got really frustrated and dark and pissed off and just figured I'd go buy some lamas and be a farmer... I did get really close, especially writing up my masters. Um, but came back to just wanting... To be really honest, just to make a difference." "To make a

meaningful difference. On, on a really small scale and I (laughs) totally acknowledge that, but how else do you create change? How else do you advocate for change, how else do you perpetuate change, how else do you move a boulder?" (Mike, 380-383, 377-380).

Consequently, these three **Drivers for Change** left participants with a desire for **Wanting More**. They wished to find a different way of doing things. As Mike explained:

"I just wanted something that explained what I was experiencing professionally, better" (Mike 1107-1108).

These very same struggles, frustrations and tensions that the participants experienced with their current way of practising, became the **Drivers for Change**. They were the reasons the participants moved away from the status quo and, consciously or subconsciously, started to look for a different way of doing things. This first stage **Drivers for Change** and how it leads into the next stage of the process called **Searching for More** is illustrated in Figure 9.

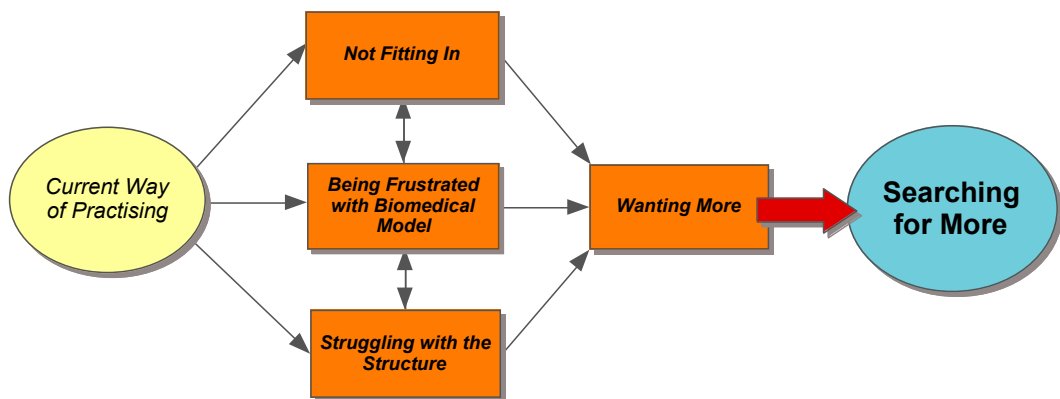


Figure 9. Drivers for change

Searching for More

Having decided that they were not happy with how they were currently practising, the participants started looking for a different way of doing things, and so they started **Searching for More**. This searching for more led them to **Getting More**: getting more skills, more experience and more knowledge. The participants approach to this was to upskill in order to become better physiotherapists. This involved attending courses, reading articles and doing post-graduate studies.

Mike explained that he consciously chose the most complex post-graduate study he could find because he was searching for something more than the current way of practising.

“Because I was just, had just had enough of the status quo. It wasn’t enough. And I chose [a postgraduate course] Pain because it seemed to be the most complicated thing I could choose. It still is... I just wanted more” (Mike 1098-1103, 1107).

Along their journey as physiotherapists, the participants also accumulated different experiences and ideas by **Trying on Different Hats**. They worked in different physiotherapy roles, in different physiotherapy fields and in different environments. They worked with diverse people, both colleagues and patients and under different funding streams. This ranged from working as rural physiotherapists, community physiotherapists, locums, private practice contractors, working with specialist doctors in tertiary hospitals, working autonomously, working in big multidisciplinary teams, working with schools and sports teams, working different ACC contracts, and working with the Physiotherapy Board. This **Trying on Different Hats** gave the participants an increased sense of the different ways of physiotherapy could be practised.

Pam came to the same conclusion, asking:

“Where does the drive come from when you then change about how you practice? Cause some of it can be courses that you go on, but some people could go on a course, and some will take it on board, and some won’t take it on board. So, there’s so much more in the drive of who you are as an individual and then where you are in probably your life’s cycle. Or maybe not. Or your experiences, huge number of experiences as to why you then change? And I think... just different experiences” (Pam 321-340).

Even though each participant had their own unique journey with different experiences, there was a commonality in the way they felt about these individual experiences. These feelings could be arranged on a spectrum ranging from **Experiencing Discord** to **Finding Resonance**.

Experiencing Discord was the negative feelings the participants experienced when a particular experience did not fit in with their personal values and beliefs about healthcare.

Terri found that studying orthopaedic manipulative therapy and getting more biomechanical skills did not make her a better physiotherapist. This particular path made her more anxious and ultimately led to her burning out.

“I basically looking back I really did burn out, I got so anxious because I had thought as I went through my training and as I went to Otago and did my postgraduate manip course, that if I tried harder and was more skilled, that I could be an expert, I would be able to fix people. And what I basically experienced, was that the more skills I got, the more I expected myself to be more perfect and I took on more responsibility and then I basically started to not make such changes in the people” (Terri 18-25).

Michelle did not enjoy her experience of working in one private practice. She discovered that this was not how she wanted to practice at all.

“(I) got into a musculoskeletal job in a private practice and worked there for about a year and I thought, this isn’t what I wanted. This is not what I want to do for the rest of my life” (Michelle 275-277).

Similar to the original **Drivers for Change**, the tensions experienced by these negative experiences in **Experiencing Discord** often became motivators for **secondary drivers for change**.

Pam highlights this concept well. She decided to give up her partnership in a sports practice because she found it was not working in a way that fitted with her values.

“So, after 4 years both the physios, both G and myself left... I think it was partly the business structure and I think it’s still the structure in health. Because it’s so hard for funding models to then try and have integration. And it also depends very much on the other people who are in your team, and I think there was a little bit of a power struggle there. And that’s not really how I work... I didn’t feel part of that community” (Pam 86, 92-97, 102-103).

In contrast, **Finding Resonance** was when the participants had a positive experience that found harmony with their personal values and view of health care.

Michelle enjoyed her experience of working in community health because this resonated with her beliefs about social equality in health care.

"I came back, and I worked in community health... And for me that kind of fulfilled my need of 'I'm working for the people who need it most now' because it was free health care, it was people who can't afford to go to see a physio, usually over 65, usually can't drive or access physio, and I was able to get out to see them" (Michelle 436-442).

Patricia found resonance with the women's health physiotherapists she met. She felt she could relate to them and felt that they were the type of physiotherapist she would like to become.

"I was like fascinated with the couple of physios who I met who were in women's health at that time. They were so different and (I thought) 'I really like you. You're the sort of person I felt like I could be, or get on well with'" (Patricia 157-160).

This **Finding Resonance** gave the participants a sense of who they wanted to be or how they wanted to practice and in turn became an **influence** on how they wanted to shape their future physiotherapy practice.

Pam believed her passion for working collaboratively came from her first job where she worked as part of a multidisciplinary team. This experience has influenced how she runs her physiotherapy clinic today.

"I think the other thing is having worked for quite a while in neuro, which again you've got to work collectively. And my first job which I've always thought was quite an amazing job... And I had six months working in a rehab centre which was both in-patient and out-patients and it was multi-disciplinary. So, I suppose that drive really came from very early on, about people working together... I'm very much a kind of team player, and that's how we run the practice here" (Pam 146-153, 466-467).

Michelle described how her post-graduate studies spoke to her personal values and have inspired her to work in that field one day.

"I came back and full-time post-grad in public health focusing on Māori health, and that was more of the same: health promotion; determinants of health, and I just loved it, but [I] haven't actually worked in that field specifically since I've done my post grad. So that's a goal of mine to get there" (Michelle 310-314).

Patricia was influenced by the work of David Butler⁷ and Oliver Saks⁸. She described how their work just made sense to her and influenced her treatment approach.

"I tell you what really did influence me as well was all the David Butler work... Because he talked sense from a neuro-anatomy point of view. It was all just so sensible and so anatomical (laughs) and that's what I love. And the same, I don't know if you've ever read Oliver Saks but... his work just so made sense, the neuroanatomy, the way the brain works, the way the brain looks after the body and then, of course, it's flood of hormones and the cocktail of those things, it's just so.... amazing to work with... And I think listening to him, and reading his work... every time you do it you're like 'yes this is so good'... It's just very, very cool. Very cool, I love it. I love the way it all fits together and works" (Patricia 304-318, 323-325).

She also stated that was influenced by the Alexander Technique and Feldenkreis. Once again, because it resonated with her beliefs about how the body works.

"I've done a lot of Alexander technique... And once again, it's the intuitive body... It's just how I think and how I've always thought... I love that it works, it's so practical, it's so immediate, it's so neurological. It's a bit like Feldenkreis... It was like stuff that you were doing with your body that opened up a whole way of being and thinking... So all of those little pieces of body work that different areas do, have really been, probably, the most influential on my practice as opposed to any physiotherapy workshop I have ever been to or any of that. Mainly because it spoke to what I really understood" (Patricia 329, 334, 347-348, 359-361, 363-369).

It is important to note that this accumulation of experiences that influenced how the physiotherapists wanted to practice was not limited to the professional realm.

Sometimes experiences the physiotherapists had in their personal life would overflow into their professional sphere. These **Personal Experiences** were also experienced on a

⁷ David Butler is a physiotherapist with a professional interest focusing around the integration of neurobiology into clinical decision making and public and professional education in pain, stress and performance management. He is the author of numerous book chapters and articles and the texts *Mobilisation of the Nervous System* (1991), *The Sensitive Nervous System* (2000), David has also co-authored of *Explain Pain* (2003, 2nd Edition 2013), *The Graded Motor Imagery* (2012), *The Explain Pain Handbook: Protectometer* (2015) and *Explain Pain Supercharged* (2017) ("noi faculty", n.d.).

⁸ Oliver Sacks, M.D. was a physician, a best-selling author, and a professor of neurology at the NYU School of Medicine. He is best known for his collections of neurological case histories, including *The Man who Mistook his Wife for a Hat*, *Musicophilia: Tales of Music* and *The Brain and An Anthropologist on Mars* ("About Oliver Sacks", n.d.).

spectrum from **Experiencing Discord** to **Finding Resonance**, which, in turn, would become an **influence** or **driver for change**, and thus shape their professional practice.

Pam's family doctor had a holistic approach to medicine and treated her children in that way. She believed that this influenced her current health care beliefs.

"I've kind of been involved in, really through my children, with anthroposophical medicine. And anthroposophical is based on the Rudolph Steiner approach with is always looking at your physical, mental, spiritual and emotional, as the holistic being, of how your whole wellbeing is... So, I've kind of been involved in that kind of more holistic model of health myself" (Pam 321-326, 328-329).

The second stage of the process **Searching for More** (illustrated in Figure 10) lead the participants to the next stage **Expanding their Scope of Practice**.

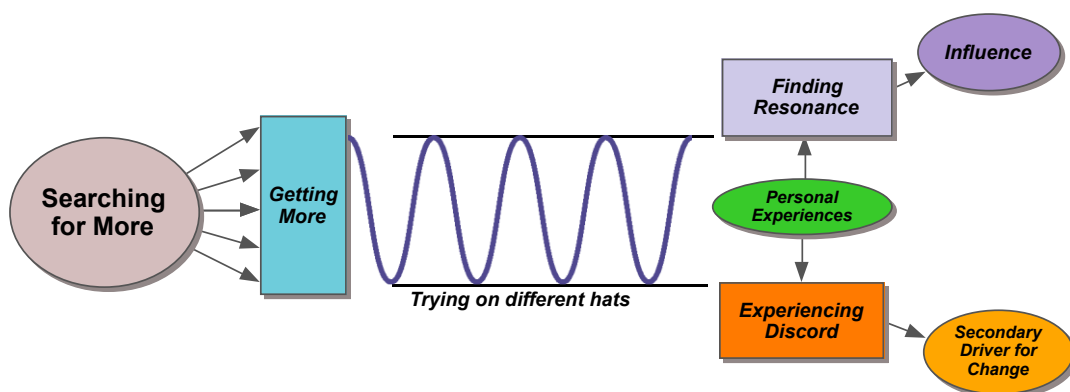


Figure 10. Searching for more

Expanding the Scope of Practice

As the participants accumulated new experiences, they started to incorporate some of these new ideas and skills into their way of practising physiotherapy. However, if the new ideas or skills they wanted to incorporate weren't perceived to be 'traditional' physiotherapy, then there was a sense of doubt and insecurity as the participants started to ask themselves whether this fitted into their scope of practice.

Mike reflected on this stage of uncertainty and how he did a lot of soul-searching as to whether what he was doing was overstepping the boundary of the scope of practice.

"For me, there was a while that I went through and I thought 'well jeepers, is there a scope of practice issue here? Am I stepping

beyond?’ And I’d talk to patients about that and keep it above board. When I was a bit more fearful and a bit less experienced, [I’d say], ‘Is it all right that we do this?’” (Mike 802-808).

The participants then initiated an internal debate as to whether this new approach or skill set was allowed inside the boundary of the scope of practice. If not, they looked for ways to justify incorporating this new approach.

Michelle faced this dilemma when wanting to include a more holistic approach into her physiotherapy practice. She believed that psycho-social aspects might be affecting her clients’ biomechanical problems. However, she was unwilling to address these directly with her clients. She did not feel comfortable or qualified to delve further into those issues. In this case, she did not expand her boundary but rather stayed with the biomechanical physiotherapy approach she felt comfortable delivering.

“I do like to look at things holistically, when it comes to physiotherapy. And I do, I keep an open mind when it comes to alternative medicine and traditional medicine and also treating the things you can’t see. So, instead of taking a strictly, I guess biomechanical approach and diagnostic approach and musculoskeletal, I’m open to on a spiritual level what’s going on for this person in their life and in their family and are they under stress? And maybe, they’ve got poor posture, were they bullied as a child? If they straightened themselves up and stood up right, were they picked on for being a tough guy? So, that’s kind of playing in the back of my mind. Although I won’t address that with the client directly because I feel like if I did that it’s either I’m not a psychologist, I can’t deal with the answer they give me probably (laughs) and also it might make them go, well you’re a physio, like what are we doing this for? So, I bear in mind what else is affecting this person and just gently sort of continue to treat, massage, stretch, strengthen. But have a think about what is, what else could be going on” (Michelle 157-172).

However, Michelle had a different response when faced with a separate issue.

Michelle began working for a company that had nutritional handouts on alternative dietary inflammation advice for the clients. She was expected as a physiotherapist at this practice to introduce nutritional information into her sessions by reciting the basic dietary information to the clients.

“We have infographics so we can take clients through the basics and pretty much it’s like read the infographic, regurgitate that information to the client and that’s the bare basics of being a physiotherapist here. So, although we’re not trained in it in

undergrad, and I had no nutritional training, it's just something I'm semi-interested in. I've got the tools to deliver that and as such have learnt a few tips and tricks along the way. So, I'm thankful for that" (Michelle 473-478).

Michelle had an internal debate and decided that as long as the information she was delivering came from a reputable source with the necessary qualifications, then it did fall within her scope of practice. She felt comfortable doing this, and so she expanded her boundaries (see Figure 11).

"Before I came here, (I would) say 'no, that's not, no I'm not qualified to give nutritional advice'. Because I've got the tools and I know that people who have put together the tools have got that qualification, I'm happy to regurgitate that information and explain it to the client in a way that they understand... So yes, I think it's within my scope" (Michelle 489-495).

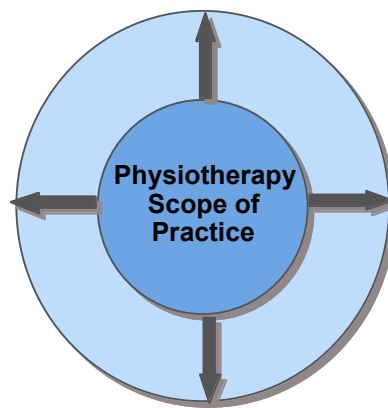


Figure 11. Expanding boundaries of scope of practice

Splitting the Scopes of Practice

As the physiotherapists started to include different approaches and skills into their physiotherapy practice and their scope of practice grew, there was a **Growing Tension** between how they wanted to practice and how they perceived they were allowed to practice. Interestingly, this tension led to a split of the physiotherapy scope of practice into two separate scopes: their **Personal Scope of Practice** and their **Perceived Physiotherapy Scope of Practice**.

Michelle first brought up the notion of a division between the scope of practices when she spoke about widening her focus as a health provider. She felt that if she got her

qualification in nutrition, then it would be within *her* scope (***Personal Scope of Practice***) but not necessarily as a physiotherapist (***Perceived Physiotherapy Scope of Practice***).

“So, I could go and do a certificate in nutrition if I wanted to... then it becomes within my scope, not necessarily as a physio but under another hat” (Michelle 479-480, 498-499).

Patricia confirmed this distinction when she spoke about her beliefs that acupuncture is not part of physiotherapy but rather an add-on.

“The common talk is that acupuncture is part of physiotherapy. It’s actually not. I’m not saying that doing acupuncture as a physio is wrong or bad or anything, but I think it can be looked on as being ‘well you know it’s our domain, and we’re so good at it and everything’ but it actually is a little bit of an add-on” (Patricia 468-469, 480-483).

Consequently, the ***Personal Scope of Practice*** could be defined as all that the individual physiotherapist brought to their physiotherapy practice: such as, their skills; approach; and personality. This ***Personal Scope of Practice*** was not static but fluid as the physiotherapists continued to add (and discard) experiences, both personal and professional, into their personal philosophy. Often this ***Personal Scope of Practice*** was a practical extension of the physiotherapist’s current beliefs around healthcare.

Conversely, their ***Perceived Physiotherapy Scope of Practice*** was an individual construct that represents their current view of what physiotherapy is. It was their perception of what is allowed in physiotherapy practice. Interestingly, this perception was not necessarily what was written in the Physiotherapy Board’s Standards of Practice at the time. Rather it was a personal view based on their own experiences of physiotherapy: their physiotherapy training and subsequent experiences in the professional realm with different working environments and influential colleagues.

Pam highlighted how one’s perception of healthcare practice was shaped, not only by one’s training, but also by the working environment. She had observed that junior physiotherapists had been given training in a more holistic approach at university, but unless they received support in their working environment, this approach was not fully understood or implemented into daily practice.

"I think they get it at undergrad, but it's then actually how they interpret it. And it then depends on where they go to practice. So, if they go into a practice that is a very biomedically structured practice and they're not exposed to it, I don't think they actually understand that and take that on board" (Patricia 169-174).

Often, the discrepancy between these two scopes grew over time, and the participants experienced a lot of discomfort and **Fear of Judgement**. Specifically, the fear of being judged by the very people they worked with: colleagues, superiors, other health professionals and their patients. The ultimate fear was being brought up before the Physiotherapy Board for disciplinary action for doing something perceived as outside the physiotherapy scope of practice.

Patricia talked about the disapproval she faced from the physiotherapy fraternity when she wanted to incorporate herbal medicine into her physiotherapy practice. This disapproval made her very uncomfortable and fearful.

"Somewhere back in the day, I did a diploma in herbal medicine. I have a certificate in that and I think it took me years to feel comfortable with even talking about it to patients because there was a lot of disapproval from the physiotherapy fraternity for anything that might look alternative: colleague disapproval and disapproval from superiors; supervisors; managers. Anybody who got wind that you might be doing something slightly (and in those days, it was called alternative), then they said, 'No just do your physiotherapy!'. So, it wasn't something I couldn't feel, well I couldn't feel comfortable to talk about it" (Patricia 371-383).

Mike spoke about the fear he used to have about being brought up before the Physiotherapy Board.

*"And if someone wants to drag me before the Board for that... go for it.
(Is that a fear of yours?)
... It was.
(Why?)
Because (sigh)... because at the end of the day, a scope of practice issue is going to arise when, typically, a colleague or a patient feels that you've overstepped. It's not going to be about when you feel you've overstepped. It's going to be about when a problem has come about so too when you've overstepped" (Mike 794-799, 808-814).*

As a result, the participants started to negotiate how they could justify their **Personal Scope of Practice** and make themselves feel safe. Michelle, like many of the participants, saw having a qualification as a way of justifying her new skills:

“I think I would need some, well, quite frankly would need the training...the certificate to sign off and then it becomes within my scope” (Michelle 495-498).

Mike tried to keep safe by keeping things transparent and making sure his patients were aware of and happy with his different approach:

“I’d talk to patients about that and keep it above board, cause, I think that’s a good thing... I went through a wee bit of saying ‘Is it all right that we do this?’” (Mike 804-805, 808).

Nevertheless, this was a very uncertain stage, where the participants felt scared and stuck and unsure of how to reconcile their **Personal Scope of Practice** with their **Perceived Physiotherapy Scope of Practice**. This stage is illustrated in Figure 12.

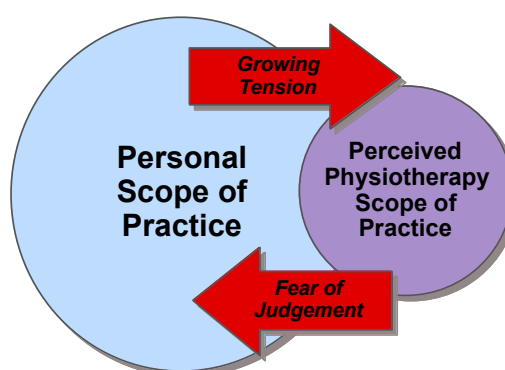


Figure 12. Splitting of scopes of practice

Opening of Perceived Physiotherapy Scope of Practice

Somewhere along their journey, the physiotherapists had an experience (or experiences) that expanded their perception of what was allowed in the physiotherapy scope of practice. These experiences fundamentally opened up their **Perceived Physiotherapy Scope of Practice**.

Terri’s experience of **Opening of Perceived Physiotherapy Scope of Practice** is a wonderful example. She had a chance meeting with a physiotherapist from Breathing Works and was invited to go and see her. Breathing Works is radical in physiotherapy

private practice in that it treats breathing disorders, a discipline that had previously been exclusively in the hospital domain (Nicholls, Walton, & Price, 2009). For Terri, this was a profound experience that shifted her entire way of thinking as to what was possible. Terri discovered that Breathing Works operated in a totally different way to other physiotherapy private practices and she found this different approach resonated with her.

“So, when I went to her as a physio, and she taught me how to breathe, I just remember feeling it was such a delicious experience! It was a whole hour, so she was slow. It was skilled, but it was skilled in being empathetic and educating and didn’t have to be a manip. It didn’t have to be fast, because I like slowing things down. So, I came away from that and then thought, that’s actually the sort of physio I want to do. I actually want to do physio where I can know my skills, but I don’t have to be seeing someone every 20 minutes, and I don’t have to get a quick manip” (Terri 217-226).

Terri found resonance with the physiotherapist’s professionalism and demeanour. Most significantly for Terri was that Breathing Works recognised and treated both the physical and the psychological aspect of breathing. Terri had not previously thought this melding of these two realms was possible in private physiotherapy practice.

“She was an expert in her own field, in a field that I suppose bridged the gap between psychology and physiotherapy. So, it was a bridged gap between emotions and mental states and physical, which I’d always been interested in because I had a tendency to be anxious. So, it was like; wow! I just remember thinking she seemed very grounded and obviously she walked the talk and did the breathing, and I remember thinking, I want a piece of that” (Terri 232-239).

After this experience, Terri went back into her own practice and started to experiment with this new approach. Not only did she get great results but she also started to understand why she had been struggling for so long. Terri found this success with an approach that resonated with her both liberating and validating. This then gave her the confidence to change other aspects of her practice.

“What happened was that basically I went back to my patients and thought, crikey, so many of the ones I’m not able to get right very easily, they’re holding their diaphragms tight. [The Breathing Works physio] would say that you won’t get a back pain person right unless you got their breathing a bit better. So, then I thought, ah, that’s part of why I’m struggling, so that was quite liberating and quite confirming and validating. And so, I started basically going back and playing with the diaphragm, teaching people and I started getting some great results. And then that basically got me teaching, treating the way I like to. And I slowed down my practice, I did 45 minutes,

half hour sessions. [I] didn't make as much money but had more success and felt much more comfortable and felt less stressed" (Terri 256-270).

For the other participants, this **Opening Perceived Physiotherapy Scope of Practice** took other forms, not always as a single event but more often as an accumulation of experiences.

Mike completed a post-graduate study in pain. He described how these papers opened up a way of combining psychology and neuroscience that answered many of his questions. Again, he found resonance with this approach, and it opened up a new way of looking at things.

"I think I did the pain papers and then, I'm showing my geeky streak here, (I) really loved the neuroscience of it. That was when I was introduced to some of the psychology and then went, well if you combine psychology and neuroscience, then suddenly there was a light at the end of the tunnel for a lot of those questions. There was a possible answer, rather than just a black, bloody wall. And then I was hooked" (Mike 155-161).

Michelle found a company to work for that had similar views of health. Although the current health care system often made it difficult to fulfil this vision of a holistic practice, she had found that having similar values opened up possibilities for change in the future.

"I do enjoy [the company's] vision: the four corners of health. So, they talk about Sleep, Nutrition, Mind-set, which is a big one, and then the Physical side of things. So, similar to Te Whare Tapa Whā, Mason Durie's health model... I think, like any practice that's operating under our current health care system, they can't entirely fulfil it... It's a step in the right direction, that's for sure... But hopefully, if I get some ideas together and present them, we can make some little changes" (Michelle 387-390, 392-393, 408, 1087-1093).

Likewise, Pam had been involved in cases with complaints against physiotherapists. These experiences showed her that the official physiotherapy scope of practice was quite liberal and allowed for a holistic view and a blurring of boundaries. Pam believed that for certain conditions, you have to look at more than the physiotherapist's traditional biomechanical approach, and she felt the actual physiotherapy scope of practice allowed physiotherapists to do this.

"I've been involved with a few cases of looking at health and disability or competency. People who've had complaints against

them. And our scope of practice is actually really wide. It's looking at a holistic view... And if something's trickier, I think the scope then for physio is, you've got to look wider, and there's a blending between the different professions. There's a blending between how much of what we do is also a bit like an OT, how much is a bit like a psychologist? I think we do that but in our actual scope allows us to do that. Because it's very broad and quite vague in that respect" (Pam 609-613, 615-621).

All these different experiences all changed the participants' perception of what was allowed in the physiotherapy scope of practice. This opening of perception led to a growth of the boundaries of the **Perceived Physiotherapy Scope of Practice** as illustrated in Figure 13.

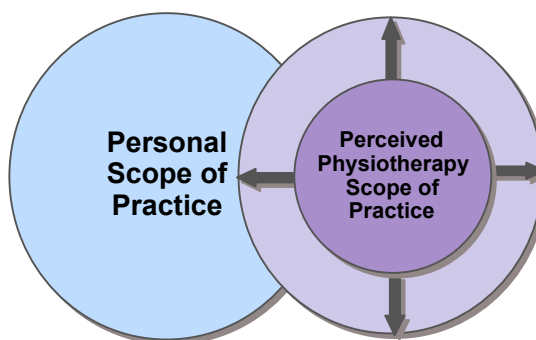


Figure 13. Opening of perceived scope of practice

Realigning the Scopes of Practice

The growth of the **Perceived Physiotherapy Scope of Practice** showed the participants that what was actually allowed within the professional scope of practice was indeed not as narrow or limited as they had previously thought. This revelation opened the possibility that how the participants wanted to practice - their **Personal Scope of Practice** - may have been feasible within the physiotherapy scope of practice. This realisation gave the participants the confidence to start to make changes to their practice and, thereby, find ways to realign their two scopes of practice once more. They did this in two ways: firstly, by **Re-negotiating of Boundaries** of their practice; and secondly by **Minimising the External Tensions** they had previously experienced.

Re-negotiating of Boundaries was an internal ethical debate in which the participants negotiated what best fitted with their **Personal Scope of Practice** and their **Perceived Physiotherapy Scope of Practice**. These negotiations required a lot of self-reflection on the part of the physiotherapists as to their level of comfort with how they were practising. As such, where the new boundary was placed was depended on the ethical beliefs of each physiotherapist and, thus, this boundary was a personal construct that was different for every participant.

Patricia illustrated this internal ethical debate very clearly. After getting her certificate in herbal medicine, Patricia worked with a herbalist to create some herbal remedies which she then sold at her clinic as alternatives for some of the current medicines available. Patricia was very aware of the ethical dilemma this presented. She felt that it was very important that one understood the underlying motivations of doing this and be careful not to abuse one's 'power' over the clients.

"So, you know I have to be careful about where I stand on this because I feel happy with what I do but somebody else coming in might say 'well you shouldn't be doing that cause, you're as a physio, you're using your physiotherapy practice to advocate something that they will trust you because you have a title of physiotherapist'. So, there is an ethical dilemma around that, no matter what we're doing, what we're selling. We come to a relationship with the patient and we have a power already because they're here and they've come to us and so we can use that power or abuse that power and I think that's where we have to be really careful with how you approach selling anything like that, that you might have a franchise in or something like that. So, I think a lot of it comes down to what's underneath it... is it a business or is it because of the health of the patients or both" (Patricia 418-435).

Consequently, Patricia very consciously put some ground rules in place in order to not abuse her position but rather to provide clients with more options.

"So, I'll get people sitting on this couch who will say 'look the gynaecologist has given me this (x) and it's synthetic (x), and I don't want to use it'. I'll go 'ok, well would you like to try this, here's what's in it, here's the risks' and all of those sorts of things and so people would buy that off me and same with (y) and all those things that I now have as a part of my options for people... But this is where I'm always very careful with the ethical side of this because I think it's really important. I would never say 'oh, you should use this instead of the (x)' because people would have come to a place in their life where they're either happy with the chemical, medical side of it, or they're not. And then if they're looking for something more than I'll offer it

but I certainly don't, I would never tell people that that's the only way to go. Because I don't believe that myself" (Patricia 39-393, 399-411).

Thereby, through this process of self-reflection, Patricia re-negotiated her boundaries and re-drew them in a place that she believed was ethically appropriate and where she felt comfortable with her practice.

Terri also spoke very succinctly about how her boundaries had changed significantly with her new approach, specifically in respect to forming a relationship with her clients and letting them talk about their personal lives in the treatment rooms. In this particular example, she also referred the client to see a psychotherapist but continued to treat him at the same time. She was comfortable with this because of the new boundaries she had put in place. In other words, she too had re-negotiated her boundaries.

"That's another thing that I feel comfortable with. I was very aware of, it was boundaried, because of the boundaries I know I had in place. And we spoke very openly about his wife, and I was always very kind of respectful of their relationship and I think that was where I spoke about him maybe going and seeing someone... He felt comfortable, and he could talk about his wife with me. Yeah and so I'm sure ten years ago, I would have started to feel uncomfortable that he was forming an attachment with me that was inappropriate. He did form an attachment with me, but it actually was healing for him" (Terri 905-909, 912-916).

It was interesting to note, that in this process of re-negotiation of the boundaries at no stage did any of the participants simply *dissolve* their boundaries. On the contrary, the boundaries may have been re-negotiated and moved, but they were distinctly and consciously put back in place again. These participants seemed to be more comfortable having a well-defined boundary. When discussing the Physiotherapy Board of New Zealand's new Standards of Practice, Michelle said she felt safer having clear boundaries in place as it endorsed what was in her scope of practice.

"I've recently been to the Board and the Physio New Zealand standard's review, and there's some little things in the standards that are tweaking, but I think it's, generally, it's quite robust, the way we're heading. And it keeps us fairly safe as practitioners. It gives us a clear scope so that we can sort of validate what we're doing" (Michelle 664-669).

As a result of the participants setting their new boundaries, a lot of the internal tension they had been experiencing dissolved and they experienced a personal sense of contentment with their new approach. However, the external tensions, the structure of healthcare in private practice and the fear of judgment from their colleagues, still persisted. In response, the participants started to find ways of **Minimising the External Tensions**. They did this by **isolating themselves, finding other communities** or a combination of the two.

The majority of the participants started their own practices. This effectively meant that they could control the structure of their working environment to a certain extent and detach themselves from daily judgement of colleagues. They minimised many of these external tensions by **isolating themselves**.

Terri started her own private practice for just these reasons. She had re-negotiated her boundaries and knew how she wanted to practice. But even though she was comfortable with her new approach, she found it very difficult to justify it to other physiotherapists who still treated in a biomechanical way. She started her own practice so that she could work in her own way, thus controlling the structure of her business and away from the judgement of her colleagues. She was aware that she was isolating herself to a certain extent, but she was happy to be left alone to do her own thing.

“And by then I definitely had more confidence about the fact that this is the way I treat, and I don’t like to treat another way, and that’s why I have my own practice... The (x) approach is a real belief in the circular, so it’s not a belief in the linear like cause-and-effect. So, the paradigm you work with is that everything’s emerging, and everything is connected and so actually let go of causation... But that’s where I struggle if I was to take that to a group of physios at a conference... And so that’s why I stay, doing my own thing, and I pop my head up every now and again” (Terri 271-274, 522-526, 549-550, 562-564).

Other participants chose to work for companies with similar values, ultimately **finding other communities**. By doing this, they got to work in a structure that was more aligned with their values and had colleagues who shared some of their beliefs about healthcare.

Michelle purposefully picked the company she worked for because it had a similar vision to hers.

“I quite enjoy not having to worry about the business side of it... I have learnt now to pick the place I work for... I do enjoy (x)’s vision, the four corners of health... so, similar to Te Whare Tapa Whā, Mason Durie’s health model” (Michelle 378-379, 383, 378-390).

She also chose the type of work that aligned with her beliefs on healthcare equality, namely working under an ACC contract in which clients have access to physiotherapy rehabilitation at no cost to them.

“So, I enjoy them because it’s working for the people that really need it... And we’ve got access to a big gym, so it’s fantastic. We’ve got resources at our fingertips, we’ve got room to make improvement. The therapy is free so that monetary barrier is taken right away. And it’s encouraged to see them at least twice a week; sometimes you can go three times a week if they need it. And of course, homework, so they take away exercises to do at home” (Michelle 550-551, 555-561).

Thus, Michelle minimised the external tensions by finding another community within the physiotherapy profession.

Other participants did both: ***isolating themselves*** and ***finding other communities***.

Patricia specialised in women’s health and found the majority of musculoskeletal physiotherapy community at the time very dismissive about this speciality. In response, she distanced herself from the physiotherapy community and no longer went to any physiotherapy meetings. Instead, she found another community amongst the midwives. She found this community to be a lot more nurturing and supportive of others. In this excerpt, Patricia described her very different experiences between presenting a poster at a physiotherapy conference and a midwives’ conference. She explained how she found the physiotherapy world to be very exclusive, self-congratulatory and very dismissive of anything to do with women’s health. Whereas she felt the midwives were inclusive, nurturing and supportive of each other.

“Within the physiotherapy world, I’ve always been real reluctant to go to conferences... There’s no ability to actually sit down with each other and what we call in the Māori world ‘awhi’, provide some awhi and some nurturing and some feedback to each other. And I tell you the difference. I did a poster on my midwifery workshops that I’m doing. This really cool poster and I took it to the midwifery

conference and then I also took it up to a physiotherapy conference. And the world of difference between taking my poster to that conference and the midwifery conference. It was just such a different conference. Like we stood up at the conference in the beginning, and we all sang together, and we all said a prayer and we basically, in the presentations, they were great, they were well researched, they were academic but they involved the people, the midwives and there was this feeling of support. But physiotherapy, right from the beginning I have always found have been very obstructive” (Patricia 583-584, 595-612).

She went on to describe her experiences of the exclusivity and rudeness of the physiotherapy fraternity. Due to this treatment, she isolated herself from the physiotherapy community.

So, the last time I went was to somewhere, was it maybe a branch meeting about something? And they were so not inclusive and so rude... And if they don't think you have anything to offer, then basically you feel like you're the cleaning lady. And that's how I felt many, many times and so, I guess, I probably isolated myself as well” (Patricia 583-658).

Thereby, Patricia practised physiotherapy professionally but worked more closely with the midwife community than her own, consequently herself from other physiotherapists but finding herself another community outside of physiotherapy.

Through **Re-negotiating of Boundaries** of their practice, and by making changes and **Minimising the External Tensions** previously experienced, these physiotherapists managed to re-align their **Personal Scope of Practice** and their **Perceived Physiotherapy Scope of Practice** (see Figure 14). Consequently, they were more content in their practice as they were able to practice with a broader, more inclusive approach that reflected their own personal values and beliefs around healthcare.

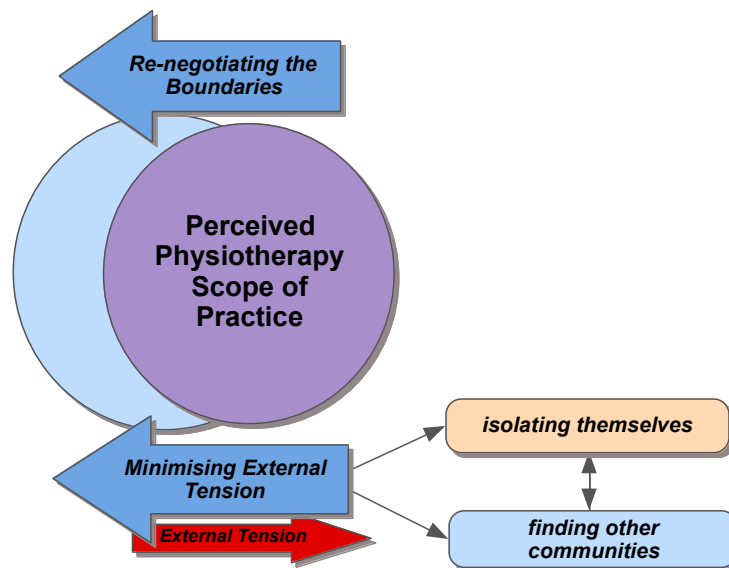


Figure 14. Realigning the scopes of practice

Practising within the New Boundaries

The participants were now practising within their new re-negotiated boundaries. They had each, in their own way, found a way of treating that was broader and more inclusive than just the biomechanical.

Interestingly, this did not mean that they followed a specific model. In fact, of the five participants in this study, only one participant adhered exclusively to a specific model of practice.

Terri very openly stated that she used the Whole-Person approach that she learnt in her Mind-Body post-graduate studies. She adhered to this approach and all its underlying philosophy. This was evident in her relational approach to her clients, her clinical reasoning process and her strong belief that both a physical or emotional experience may present as physical pain. Following this approach had fundamentally changed her everyday physiotherapy practice.

“Well how I practice now is, I know it is a Whole-Person approach because that is how it’s evolved and that’s what I’ve learnt from the Mind-Body health care papers that I did. So, I leave physio hat off at the door and I, this is the best way I can explain it, and I go in as (Terri). So, I meet the other person as a person. And I have my physio skills, and I have my understanding of breathing and my interest in people’s experiences and emotions and their stories. But it really, it

opens things up if I feel that I go in without my physio hat on. I think it's very helpful that I'm a physio, because I have all the biomedical and all the biomechanical understanding of movement and kinesiology, but I really like to meet the person relationally first. And that has fundamentally changed my practice... I have all my skills, I am able to clinically diagnose if this looks like it might be a raging disc or if this is a nerve root irritation or this is a breathing pattern disorder. But if I hold that with one hand, I feel like I can really hold lightly the person's story, which I think is often very symbolic of how they present with their physical body" (Terri 5-17, 42-48).

Two other participants said they treated according to the bio-psycho-social model. However, on closer enquiry, this adherence was not unequivocal. Mike had a good understanding of the bio-psycho-social model but was also aware of its limitations due to its reductive nature. However, he felt the bio-psycho-social model allowed him to incorporate the context around the client's pain or injury. He believed this was an improvement on the restrictive biomedical model.

"It's still reductionist. But my argument is, well it's potentially less reductionist and a little bit more explanatory than just a biomedical model... So, it still works in terms of describing the experience, just better than just biology alone. So yes, it's reductionist, but you can still take a person and reduce them to BPS and then frame that in terms of how you build that back up to get the picture. If you just do biological, you risk missing a whole bunch of stuff. So yes, it's reductionist but it's allowing a little bit more" (Mike 491-493, 508-513).

Mike appeared to use the model as a tool, a way of justifying his inclusion of the context around his patient's pain or injury into his treatment approach.

"So, taking into account the model that I might have used to formulate and justify the output, is not really based on tissue pathology, it's more based around the context in which what happened and her experience of it" (Mike 199-202).

Interestingly, when debating the necessity of a specific model for the physiotherapy profession to use in order to move away from the traditional biomedical model, his thoughts were more open. He didn't think that having a specific model was essential for change to occur. He thought it was more important that as a profession, physiotherapy just moved away from where we've been. But he recognised that this moving away from the safety of the biomedical model without a specific model to move to was scary for many physiotherapists.

"So, models, this is about academacising something, right? And any academic want's an explanatory model to test a hypothesis, right? Or at least to try and put some boundaries somewhere. So that comes with a whole bunch of stuff. It also restricts and growth and innervation and all of these other things... I don't think we need to define, not at the start, hopefully through the process maybe it becomes a bit clearer, but we don't need to define where we're going, we just need to move away from where we've been. And that's scary" (Mike 863-868, 873-876).

Pam, on the other hand, had initially stated that she treated using the biopsychosocial approach. However, when describing her approach, she used the terms 'biopsychosocial', 'holistic' and 'person-centred' almost interchangeably. There seemed to be a lack of clarity around the specifics of the models. To Pam, the semantics of the model was less important than the fact that one looked at the client as a whole person.

"I suppose I've got a holistic approach, and it really is very much patient centred. I've gone through the manual therapy but it's also really about the person and of course, with the person comes all the bio-psycho-social and about who the person is in their social, cultural and in their environment... You need to have a very different [approach than] just a biomechanical approach because you've got to have that much wider holistic approach to their management. So, I think it's taking very much a person-centred approach. Which means, for my mind, that's a wider bio-psycho-social approach to management... When you've got a patient sitting in front of you, if you're treating them holistically, you're looking at the whole picture" (Pam 6-11, 25-29, 937-939).

Like Pam, Michelle talked about having a holistic view of health, but this concept was vague, and she did not always feel confident to include it in her treatment sessions.

"I do like to look at things holistically, when it comes to physiotherapy... So, instead of taking a strictly biomechanical approach and diagnostic approach and musculoskeletal, I'm open on a spiritual level to what's going on for this person in their life and in their family... So, that's playing in the back of my mind although I won't address that with the client directly... I bear it in mind what else is affecting this person and just gently continue to treat, massage, stretch, strengthen" (Michelle 157-158, 160-163, 166-167, 170-172).

Conversely, Patricia was against using a specific model as a treatment approach. She felt that by using a specific model to analyse a person, you risked reducing them to a

label. She believed that treating ‘more than the biomechanical’ was not definable, but was rather whatever it needed to be for that person at that time.

“It really is that person outside of just an ankle or a foot or whatever. So, it can be whatever it needs to be for that person at that time. I don’t think ‘outside of biomechanical’ has to have a definition, I actually think biomechanical is a subset of your life... That’s a risk though, you start to analyse it, and you lose the relevance of it. Whereas it’s just really seeing the person... And I think that’s often what happens with physios is that they unravel and they don’t ever put it back together again, so you end up with this person that’s got a medial ligament... They can’t see ‘well, what’s this going to mean for me?’ It’s kind of that integrating somebody’s world with that stuff” (Patricia 883-886, 959-563, 979-981, 985-989).

Therefore, the findings of this study showed that a specific **Model was Not Essential** for these participants to have a broader and more inclusive approach to treatment.

Each participant had found their own, individual approach to treating ‘more than the biomechanical’. However, despite the uniqueness of these participants’ approaches within their newly constructed boundaries, there were four common themes that emerged as to how their approach had significantly changed through the process of **Re-negotiating the Boundaries**, namely: **Learning Humility: Shifting of Perceived Physiotherapy Role; Acknowledging the Bigger Picture; Finding Connection** and **Incorporating Self**. These common themes when **Practicing within the New Boundaries** are illustrated in Figure 15 and will be discussed below.

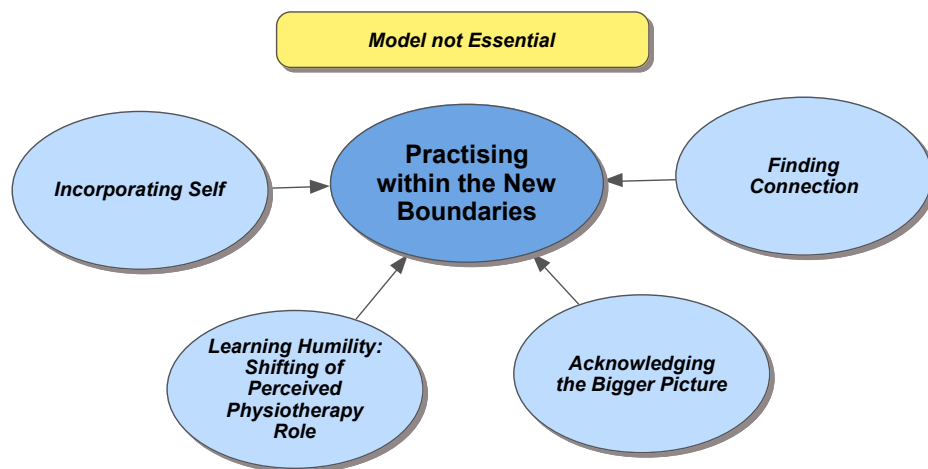


Figure 15. Practising within the new boundaries

The most pronounced of these changes, was the **Learning Humility: Shifting of Perceived Physiotherapy Role**. This was a shift in what the participants perceived their role as the physiotherapist to be, from one of **fixing** to **working with**.

The participants in this study spoke about how they initially saw their role as **fixing** their patients. Here the physiotherapists were thinking in terms of their own skills and what they felt the client needed, and what they could do *to* the client. The language used showed a classical power asymmetry, in which the physiotherapists saw themselves as the experts with all the knowledge and skills necessary to fix the mostly passive client.

“Going through my training, I became more and more narrow about what I was going to do to her rather than being able to step back and just listen” (Terri 180-182).

Along the way, the perception of their role shifted to a humbler **working with** their clients. Here, the physiotherapist viewed the client as an individual on their own journey, and they saw their role as the physiotherapist as a facilitator, where they used their skills and knowledge to help the client along this journey. The client had a very active role in their own rehabilitation. Patricia illustrates her shift in perception of the physiotherapist’s role very clearly in her excerpt:

“But I think I’ve probably evolved more in the fact that I talk less and listen more and I don’t try and solve everything... I think when you’re 25, and you’ve got somebody with back pain, you think that you can fix it and that you’ve got all the answers because you’ve read all the things and been to this course and that course and you’re like sweet, I’m going to do this, this and this. Whereas for me now, it’s like, what shall we do together to get this on the road. These are the things that I can tell you about because that’s my specialty but what do you think? And it is that honestly and the feedback from the patients. So, there’s always this togetherness really” (Patricia 276-278, 288-296).

Part of this **Learning Humility** was a sense of **letting go**: letting go of responsibility for fixing the client; letting go of the mindset that they had to know all the answers; and letting go to a little of their identity as a physiotherapist, and all the status that went with that. The participants spoke about not trying to solve everything, being comfortable with not knowing all the answers, having an innate belief in the wisdom and healing properties of the body even without physiotherapy intervention. Terri

talked about how she believed the physiotherapy profession was changing in that it was realising that they didn't have all the answers. Personally, she felt that being comfortable with not knowing was an important shift for physiotherapy.

"I think Physio is changing because we don't have all the answers and we realise we don't. And I think the more expert I get, or the more learning I do, the more comfortable I am with not knowing... And the more comfortable you are with 'there's a lot I know I don't know' and you can say that then there's quite a lot of spaciousness. And I do think that that is changing, but it's going to take time" (Terri 608-611, 613-616).

She went on to explain that in her new approach to physiotherapy treatment, even though she recognised the advantages of her status as a physiotherapist, she purposefully let go of her physiotherapy mantle when meeting her clients and rather met them as a person. She found this opened up a whole different relationship dynamic.

"Because I think that's where I think changes/shifts make a dramatic [effect], is when you let a little bit go of your personal identity. Even though that is important, being a physio, it gives you credence, and people trust that you understand the pathology in the body and all those sorts of things. But if you can meet the person as another person, not as an expert, not as a therapist, just as a person, I think what happens is the relationship that happens between you, what emerges there is, it's not shut down by 'that person's a doctor, I can't say that'. You meet quite equally" (Terri 637-648).

Part of this new role was **recognising the individual**. The physiotherapists recognised that as an individual, the client's all had their own experiences and as such, all had different needs. The physiotherapists tried to see the client's pain/injury from their point of view and work out what it was the client needed. They would then use their skills in a way that best suited the client at that time.

"So, it is getting that balance, isn't it. And looking at what the person needs and how a person thinks. You've kind of got to go into their head as opposed to what you think is going on. It's like putting a jersey that you like on somebody else, it might not fit them, and they might hate it. So, you've got to find how they see their bodies and how they see themselves as healing and people are so different" (Patricia 511-518).

Another part of this new role was **meeting the need**. This phrase came up in many different contexts but fundamentally, by recognising the client as an individual and

working with the client to see what they needed, the participants saw their role as a dynamic one that changed into being whatever it needed to be for that person at that time, to help them on their journey. Pam summarised this nicely:

“You know, when you’ve got a patient sitting in front of you, if you’re treating them holistically, you’re looking at the whole picture. And it’s how much with that person is what is the most appropriate thing to do with them on that day or at that particular time to help them on their journey” (Pam 938-942).

This **Learning Humility: Shifting of Perceived Physiotherapy Role** is illustrated in Figure 16.

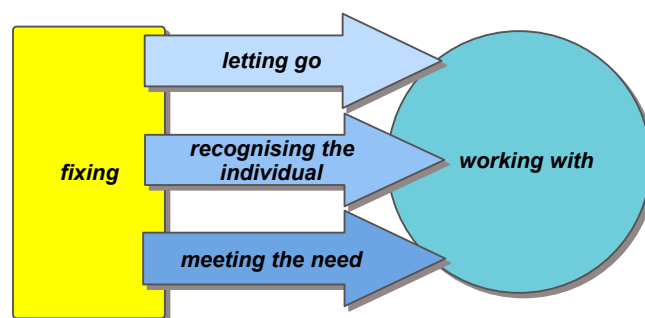


Figure 16. Learning humility: Shifting of perceived physiotherapy role

The second change in approach was **Acknowledging the Bigger Picture**. The participants, in one way or another, recognised that the injury or pain their clients presented with was more than just a biological event. The participants all had different philosophies around this, but collectively, they recognised that their clients did not come to physiotherapy as a blank slate. They came with previous experiences related to their injury, and their injury happened within a context. Also, the implications of their injury affected more than just the physiological. Thus, **Acknowledging the Bigger Picture** was divided into three categories: **acknowledging the backstory**, **acknowledging the context** and **acknowledging the implications** (see Figure 17). These different aspects are explained using the participant’s own experiences in their physiotherapy practice.

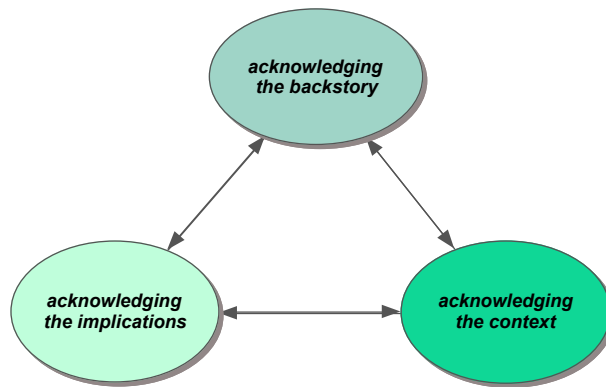


Figure 17. Acknowledging the bigger picture

Patricia worked in women's health and recognised that her clients often came with a very painful and complicated history. She felt that **acknowledging the backstory** was essential before healing could start.

"So, the vulnerability around what people come with is what they've experienced in the past, not just from physiotherapy but from gynaecology or just from finding no place that can help them... so they've often already had a really, really tough journey before they come here. Some of it's around unravelling that first before they can even move on" (Patricia 775-778, 788-791).

Mike strongly believed that a person's injury involved more than just the biological damage. Their injury happened within a context.

"You can have an injury, and yes, there may or may not be tissue damage with that. But the broader context effects, and we know this now, affects how you perceive that: the threat value, the meaning, all of the other stuff that goes with that isolated experience of pain" (Mike 446-450).

And conversely, their injury will affect their life more than just physically.

"And how else do I explain it? You'll get kick back from a lot of people and say, 'hey look, I've got swelling and bruising', and I'll say 'well, how do you feel about not being able to go for a run with your daughter or your kid'. So, you can contextualise it, anything, straight away and then they'll go 'ah yeah'" (Mike 450-454).

Mike felt it was essential to **acknowledging the context** of a person's pain or injury. He talked about his experience when he first started asking the often-uncomfortable questions about the context of a client's pain. Contrary to his expectations, he found that not only did he begin to understand the client better but the client themselves felt legitimised and started to open up more. This revealed a whole new world for both the physiotherapist and client.

"When I decided that this, this, you know this model was really cool and maybe could answer a whole bunch of questions, I started asking those questions, feeling uncomfortable with what came back. The thing is, a little bit of an enlightenment for me was, I thought often what is, I want to ask and I want to understand, and I want to be able to understand this being within their world context, but I have no idea what's going to come back at me. What was interesting, is when I started doing that, people started to acknowledge that bigger picture and actually felt legitimised and not stigmatised. So, all the stuff that we think we're going to get back and the whole 'what's my sex life got to do with my back pain?' and 'what's my stress levels got to do with my back pain?' and 'what's my crappy three and a half hours of sleep and my teething toddler got to do with my lower (back pain)?'. They started to go 'ah, yeah, actually maybe that makes (sense)'... I didn't get back what I thought I was going to get back. It didn't stigmatise them further; it was the opposite (laughs). It was the sense of freedom, and they started talking, and their experience was legitimised and it was real and it was embedded in their context and that just opened up a whole new world" (760-772, 775-779).

Mike firmly believed that **acknowledging the context** and looking at and asking questions around the context of a patient's experience, is, or should be, part of physiotherapy.

"If our questioning and our frames of reference revolve around a person, becoming a patient in terms of an experience or an injury, and asking around that experience as to what, how that pain has changed their world view, or their ability to interact with their world, that's physiotherapy. How can we do an assessment here, completely out of context, and say, I'm confident if you do these exercises and nothing else, and not acknowledge the broader picture, that you're going to get better... It's not using psychological principles that are outside our scope, that's just about trying to understand their experience of what they're presented with at that moment in time" (Mike 782-789, 792-794).

Patricia was very aware of the negative implications an injury can have on her clients' lives, and she felt that **acknowledging the implications** was important. She found that by acknowledging and addressing these implications, physiotherapy could have a very positive impact on the client's wellbeing. To illustrate this, she gave an example of a woman whose physical injury was restricting her social interaction and mental wellbeing. Her physiotherapy management programme incorporated all these aspects and as such opened up this person's whole world once more.

"I'll give you an example of a woman coming in, and I'd see lots of women like this, somebody coming to me with pelvic organ prolapse,

not being able to go to the toilet without using their peroneal splinting or having to use digital evacuation, constipation, sometimes tailbone pain and then sometimes accidents. So not being able to go out, needing to wait 'til they've had a bowel motion 'til they go out. Not being able to hold onto wind, changing their whole world, so they've had to wear pads or just change their social life. And so, coming, learning, becoming aware, doing all of the stuff that we do as physiotherapist and more, looking at their diet... So, doing all of that. The one thing she said to me, she said, 'you know' she said, 'I can actually go out now, and I don't worry if I've had a bowel motion' and she said 'I can go swimming'. She would go swimming once a week at the pools for her exercise, because she had bad arthritis and that a huge difference to her world and she didn't have to have surgery. So, for her, the world was a different, was more accessible and open again. And her life had just shut down, so it opened back up again which was just really wonderful" (Patricia 216-227, 230-235, 238-240).

All the participant's felt that acknowledging and addressing the bigger picture was important in terms of treatment outcomes.

The third change in approach was one of ***Finding Connection***. This theme wound its way through all of the different treatment approaches. This connection was facilitated in multiple ways, including but not limited to: ***creating a safe space, trust and the therapeutic relationship, genuine listening, being a person, allowing emotions in the room*** and the ***power and privilege of touch***.

In the first instance, this ***Finding Connection*** was related to the connection created between the physiotherapist and their clients. The extracts below illustrate the participants' own experiences of how this connection can facilitate change in their clients.

Pam talked about the change that can come about just by giving someone a safe space to talk to someone they can trust, where they feel they can be heard.

"We've had many people who've come in here where they've been angry or scared or all sorts, and it's about listening to them. There would be many, many stories of lots of people who have changed when they've felt they've come to a safe environment where they feel they can talk, or they feel they can be heard. And that has got to be around a relationship of trust" (Pam 778-783).

Mike also highlighted his belief of the importance of creating a safe space and being someone they can talk to and trust. He believed that these factors minimised any perceived threats associated with the experience and gave the clients the confidence to explore their experience and thereby to heal.

“For lots of people out there, having a safe place to come and someone to talk to and someone to go, ‘hey, have you considered this? Maybe you’re objectifying a subjective experience’. And having the trust there. And the interesting thing is, we might get the clinical output wrong. We might give them the wrong exercises, but because they’ve got the trust in the relationship and the confidence to explore that, the chances are, even if it’s the wrong thing, it’s been de-threatened and even if it’s vaguely contextually related to something that they value, you still can’t go too far wrong” (Mike 1025-1034).

Terri believed that her person-to-person approach created a connection where empathetic listening and caring can create change.

“And so, it just feels like you meet them as a person and it’s much more rewarding and satisfying because it’s much more connection... You’re human: human meets human. Person meets person... My sense is that there is a lot that can happen just that empathetic listening, caring, meeting of two people where you’re interested genuinely in their story” (Terri 86-88, 705, 710-712).

Pam spoke about the importance of trust and how touch and providing a safe space for clients, often allowed them to open up more.

“And again, it’s about trusting. And if they trust you to touch them when they’re in pain, it’s then allowing them also then to open up. So, the stories that have gone on between these four walls are huge. Yes, there’s the physical but it’s about a safe place really” (Pam 765-771).

Patricia felt that touch and hands-on work promoted a deep connection with the client. This connection gave the client the opportunity to relax and process their experience. In addition, as a therapist, this facilitated feedback from the body and the client.

“I do do a lot of hands on work. I’m a great believer in therapeutic healing from hands. I do lots of soft tissue techniques, myofascial release, I love it... And I feel it just gives you that connection... I think it gives somebody time to actually relax and settle down and then start talking and feeling. And also, then you get to feel what’s going on with their bodies and how they react to things and their sensory

system and their proprioception and all of that, which you can't get that from just looking" (Patricia 1166-1170, 1172, 1177-1182).

In the second instance, ***Finding Connection*** was related to helping the client to connect to themselves and their experience. This was achieved by connecting their injury with the rest of their world and helping them to make sense of it all, and by connecting the client with their body both via proprioception and in regard to their relationship with their body.

Mike spoke about how part of his treatment was helping his clients connect all their experiences and make sense of everything that was happening to them. He believed that his treatment was successful because they resolved this discord.

"... that was very much understanding the human being in that wider context, in terms of his social environment, his understanding, his perception of what was going on, his experience of what was going on and working out all the discord in-between all that stuff. And that really, that's I think, that's why it's worked" (Mike 125-129).

Terri talked about using touch to help people to connect with their bodies. She felt that touch was a non-verbal way of caring and nurturing that broke through many barriers.

"My sense is that it's very nurturing, very caring, it's attending... I think it brings them to notice their body. I think a lot of people live in their head. And I think that touch is healing. I know how I feel, I want someone to touch the sore spot... Having someone's hands on you that you trust, that's kind of probing the tissues or curious about finding out where the pain might be, it just feels marvellous when it's like "yes, that's my pain", it just feels just, attended to... I think maybe what touch does; it connects, it's non-verbal, it crashes through the judgment or the layers or whatever, I think it just meets the need" (Terri 299, 303-311).

Terri also genuinely listened to her clients. She found that this helped them to slow down, to notice and connect with their bodies and make sense of their experiences.

"I think I meet the other with making sure they know I'm truly listening... I feel like I'm just a facilitator of slowing it down so that they connect with all of them. [Be]cause I think that's actually where, that's where the symptoms emerge from is the disconnection or the separateness or the fact that they haven't got a relationship with their body, or a relationship with themselves, should I say. So, they're coming in with body pain, because usually they come with body pain to a physio, but I want them to have a relationship with themselves... And so, I think, when you allow the person to actually notice

themselves or notice their body and see their body as something more than just an objective thing, that's where the magic happens... Because I think when someone's genuinely interested, I don't think that happens very often. And so, my sense is what happens is, people slow down, and savour their experiences or notice or make sense of them. And it's in making sense of your experiences that shifts happen" (Terri 653-654, 662-666, 684-689).

Once again, the participants felt this **Finding Connection** was paramount to achieving good treatment outcomes. As Pam concluded:

"The relationship with the patient is absolutely paramount. You've got to have a really good relationship with your patient, and you've got to have the trust. They've got to trust you to be able to actually get success and get the outcomes or the goals that they're wanting to achieve" (Pam 627-639).

Finding Connection is illustrated in Figure 18 below.

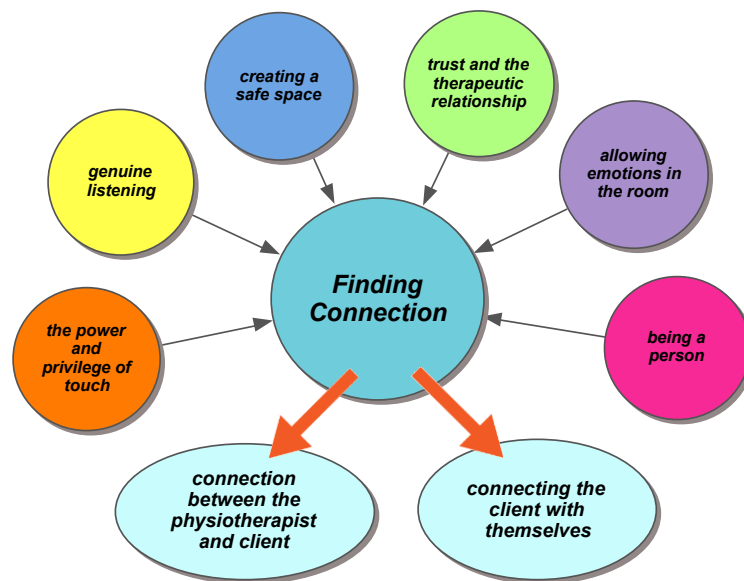


Figure 18. Finding connection

The last change in approach was one of **Incorporating Self**. This was where the participants incorporated their **individual beliefs**, **cultural practices** and **personal interests** into how they approached their physiotherapy practice.

Terri talked about how, for her, touch has always been an intuitive way of attending to people. She felt she lost this when she tried to be clinically objective about how and when she used her touch. She spoke about how she had gone full circle, and now with her new approach she included this **individual belief** and used touch as part of her physiotherapy practice.

“So, getting more and more skills, getting more and more objective, more clinical, more analytical and actually losing sight of what actually made me a physio in the first place, is that I loved to touch, and I was a little girl at the age of 6, massaging my sister’s shoulders, and I used to massage friends at my school and it was touch and the fact that it was natural for me to attend to people that way. And so now, it’s kind of full circle... I suppose what I knew intuitively at the age of six and the age of 15 and what got me into physio was that touch is healing. And then I lost some of that in my way about thinking that touch has to be skilled, and it has to be three sets of Maitland mobs and not too much massage because that doesn’t have enough evidence. And so now I trust in my touch” (Terri 35-42, 183-188).

Patricia spoke about her interests outside of physiotherapy, specifically her interest in poetry and writing. She incorporated this **personal interest** into her practice by helping her patients find their story.

“I also have another life. I’m a writer, so I do a lot of poetry, and I write, and so I enjoy the story telling, I enjoy the words, and I enjoy helping people to find words and find their story. So that’s quite a big part of my practice as well” (Patricia 839-841).

Patricia also identified as Māori, and she spoke about how the **cultural practice** of acknowledging the individual and where they’re from definitely informed how she acknowledged her clients in her physiotherapy practice.

“In the Māori world, the first thing that you do when you see somebody is acknowledge where they’re from and what their past is and that for me in my physiotherapy practice becomes ‘ah, ok, I see you’. And that setting up that understanding and that acknowledgement of each other is quite big... It’s not (just) for Māori, it’s for everybody, but it does certainly inform how I am with people” (Patricia 848-852, 859-860).

Thus, each of the participants incorporated part of themselves and their beliefs into their physiotherapy practice, and, to a certain extent, personalised their practice.

There is a sense of contentment now that the participants are ***Practicing within the New Boundaries***. As Terri stated:

“I just enjoy, I enjoy the way I practice” (Terri 948-949).

It is clear that this is not the end of these participants’ journeys. Following the constructivist philosophy underpinning this methodology that reality is constructed by the individual themselves through all their experiences and their interaction with others (Charmaz, 2014), then this process will be repeated as new ideas and experiences are debated and new boundaries re-negotiated.

Conclusion

This chapter has presented the constructed grounded theory process **Re-negotiating Boundaries**. It has described the findings of this study in relation to each stage of this process. In doing so, it has demonstrated how and why these physiotherapists have incorporated a more inclusive approach into their practice. The following chapter elaborates on the most pertinent aspects of the **Re-negotiating Boundaries** process. This includes how these findings illuminate underlying motivations and perceptions and will discuss ways these insights can be used to help the physiotherapy profession to incorporate a more inclusive approach to practice.

CHAPTER 6: DISCUSSION

Introduction

In discussing the finding of this study this chapter looks beyond the constructed process to the underlying themes of the research findings. These themes are authentic practice, power of perception, reflective practice, and the concept of connection. They will be examined in relation to the current literature, physiotherapy frameworks and healthcare policies. How these new perceptions could be used to promote a more inclusive physiotherapy practice will then be explored. The limitations and implications of this study will be then discussed, followed by a summary of the discussion. The chapter will conclude with a reflection of the study's research question and aims and examine how the findings of this study answered these objectives. This study's contribution to the literature will then be discussed, together with a summation of both the professional and personal implications of this research.

Congruent with constructivist grounded theory, the findings of this study are my constructed interpretation (Charmaz, 2014) and by extension, this discussion is my interpretation of these findings. It is an amalgamation of my experience both as a physiotherapist and as a researcher. A pragmatic lens is employed, as this study is trying to make sense of how physiotherapists approach their daily practice. A critical lens is also applied as it exposes the voices of those under-represented physiotherapists that perceive themselves as on the edge of orthodox practice, with the view of empowering them and exacting social change (Grant & Giddings, 2002).

Authentic Practice

“To thine own self be true”
(Hamlet, Shakespeare)

Throughout the whole process of **Re-negotiating the Boundaries**, there is an overarching internal battle between these physiotherapists' personal values and beliefs and their perceived professional role. This occurs in the initial tension these physiotherapists experienced, whether it was struggling with the structure of physiotherapy, being frustrated with the biomedical model or the feeling of not fitting

in with the physiotherapy community. This dissociation between the personal and professional ultimately drove these physiotherapists to search for another way to practice. In their subsequent experiences with different people, roles, and approaches, they either continued to experience this discord or they found approaches that resonated with their underlying self. This led them to incorporate some of these resonating approaches into their physiotherapy practice, expanding the boundaries of their scope of practice. However, if these new approaches did not appear to fit in with their perceived physiotherapy scope of practice, this only amplified the conflict, which eventually led to a split of the scope of practice. It was only as their perception as to what was allowed in the physiotherapy scope broadened, could they finally start to align their personal values with their professional role. This was done through self-reflection and an internal ethical debate that led to the identification of the participants' personal values and beliefs and where they felt comfortable to practice. Consequently, they re-negotiated their physiotherapy boundaries to incorporate their individual beliefs, cultural practices and personal interests into their physiotherapy practice.

This observation raised the question of whether this tension between professional and self was limited to the participants of this study? Or was this a more generalisable concept in physiotherapy today? There is ample literature reflecting physiotherapists' frustration with the sole use of the biomechanical model (Edwards & Richardson, 2008; O'Sullivan, 2012) and the dissatisfaction with the structure of current physiotherapy practice is evident in many social media physiotherapy chat groups and blogs. This tension would suggest that physiotherapists' view of health and illness no longer fully aligns with the traditional biomedical view. But the tension of not fitting in and the underlying discord experienced between personal values and the profession's role is not discussed in the physiotherapy literature directly. Jones et al. (2002) believed that a physiotherapist's clinical reasoning was directly related to their own perception about health and disability. Shaw and DeForge (2012) agreed believing a clinician's approach to clinical practice will come from the "ontological and epistemological beliefs of physiotherapists" (p. 432). But neither papers expanded on whether this world view was inherent or learnt or what occurred when their personal view did not align with their perceived professional role. Smart and Doody (2007)

suggested that a physiotherapist's more holistic approach was probably learnt through clinical experience. Nicholls and Gibson (2010) concurred believing that physiotherapists working with a more embodied view of health were doing so "despite their training, not because of it" (p. 504). However, these suggestions did not expand on the physiotherapist's experience of working with a more inclusive approach in a mostly biomechanical setting.

I argue that the personal-professional tension uncovered in this study, may not have been previously recognised in the literature because physiotherapy's biomechanical heritage has influenced more than just the view of health and illness. Firstly, separation of the body and mind extended to the physiotherapist's perception of their professional role as well. The physiotherapy profession purposefully adopted the dualist biomedical model in order to legitimise their profession and in effect developed an approach that emphasised the biomechanical "but detached the 'person'" (Nicholls & Larmer, 2005, p. 57). In order to be considered a respectable professional, the founders of the physiotherapy profession adopted a strict moral code of conduct that stressed maintaining "'appropriate' relationships of objectivity and distance from patients" (Nicholls & Cheek, 2006, p. 2343). Unquestionably, this perception that a physiotherapist had to be objective and was not allowed to bring emotion or empathy into the clinical setting was very evident in the findings of this study. Secondly, the biomechanical approach's reductionist perspective has also limited physiotherapists from seeing themselves and their practice clearly (Nicholls, 2017). Therefore, physiotherapists may not have previously recognised the tension between their personal values and professional role, or it may not have been openly expressed.

This raised the question as to whether any other professional fields had identified this tension between professional and self, and subsequently if this had resulted in a different way of practising. Interestingly, the field of leadership acknowledges the alignment of the dualist 'work me' and 'home me', matching a way of working that emulated how the participants in this study wished to practice. *Authentic Leadership* is a term meaning being genuine and leading others by "having a sense of self-awareness, identity, honesty and passion" (Robinson & O'Dea, 2014, p. 1). This is different to the therapeutic *use of self* as used by psychotherapy, occupational therapy

and nursing. Therapeutic *use of self* is a conscious use of one's personality and knowledge, through thoughtful self-disclosure and non-verbal language, with the aim of improving the client's engagement in therapeutic activities and to influence therapeutic outcome (Punwar & Peloquin, 2000; Solman & Clouston, 2016; Taylor, Sun Wook, Kielhofner, & Ketkar, 2009). In contrast, *Authentic Leadership* is not a technique used to enhance the therapeutic encounter (Solman & Clouston, 2016) but rather the embodying of your true self into the (leadership) role (Robinson & O'Dea, 2014). As Robinson stated:

"Being true to ourselves calls us to draw on the very essence of our values, beliefs, principles, morals and all of these create our 'guiding compass' in the job" (Robinson & O'Dea, 2014, p. 1).

There were many parallels between the practice of *Authentic Leadership* and the participants in this study. Goffee and Jones (2009) described leadership as relational "something you do *with* people, not *to* them" (p. 17) and this mirrored these participants shift of perceived physiotherapy role from one of **fixing** to **working with**. The foundations of *Authentic Leadership* are also reflected by the participants themselves: their commitment to their own learning in order to understand themselves as a person, their foundation of deep self-awareness, their letting go of ego (**learning humility**) and lifting the veil to reveal their true selves (**incorporating self**) in order to truly empower and develop others (Robinson & O'Dea, 2014). In essence, **Re-negotiating the Boundaries** is the process by which these participants incorporate their values and beliefs as the foundation that guides their physiotherapy practice in order to help their patients to the best of their ability. Ultimately, they are trying to practice Authentic Practice.

This identification of the tension between personal values and perceived professional role is a significant finding as this tension was the core motivation that drove these practitioners to search for a different approach. Conversely, resolving this tension was the key to their new more inclusive approach to practice. That a clinician's approach is directly related to their own ontological and epistemological views of health and illness has already been identified (Jones et al., 2002; Shaw & DeForge, 2012). These findings develop that link further and suggest that identifying and understanding these underlying beliefs and values is vital to understanding physiotherapy practice. Insight into these values would highlight the current tensions experienced by physiotherapists

in their daily practice. It would illustrate how physiotherapists are/or would like to practice and thereby what a more inclusive approach might embody for physiotherapy. Lastly, it offers a way of facilitating a more than biomechanical approach through Authentic Practice.

Power of Perception

*“Man’s mind, once stretched by a new idea,
never regains its original dimensions”
(Oliver Wendell Holmes)*

The biggest obstacle that these participants had to overcome in this process of finding Authentic Practice was their *perception* that their personal view of health and illness and how they wanted to practice did not fit in with the physiotherapy scope of practice. All the participants believed that they were practicing close to the edge of ‘acceptable’ practice in one way or another and it was this perception that caused extensive tension and fear of judgement. Nicholls (2017) recognised that working on the outer margins of orthodox practice came with the risks of censure and discipline from the regulatory board and therefore these practitioners often operated quietly and in isolation. It is here that one may “encounter an inherent tension in the nature of professional regulation and the question of professional autonomy” (p. 226). This tension and fear of judgment was very evident in this study.

But this *perception* is a social construction, a personal interpretation of what ‘good physiotherapy’ is. It is derived, in part “from the way they have been socialised to think about their practice” (Nicholls, 2017, p. 223). For these participants, their original perception came from their experiences with their biomedically dominant training, their peers’ influence and opinions, public perception and the healthcare environment itself. However, any social construction is contextualised and changes with time. Additionally, any of the factors that helped form their perception can conversely, change this perception. These participants original perception of the physiotherapy scope of practice changed with new experiences: meeting physiotherapists with different approaches, working with other professions, and doing courses or post-graduate studies that opened new avenues and ‘allowed’ a different way of viewing practice.

The official physiotherapy scope of practice has changed over time. It was amended by the Physiotherapy Board of New Zealand in December 2008. This updated definition described the general scope of practice for physiotherapist in Aotearoa New Zealand as being:

“Physiotherapy provides services to individuals and populations to develop, maintain, restore and optimise health and function throughout the lifespan. This includes providing services to people compromised by ageing, injury, disease or environmental factors. Physiotherapy identifies and maximises quality of life and movement potential by using the principles of promotion, prevention, treatment/intervention, rehabilitation and rehabilitation. This encompasses physical, psychological, emotional, and social well being.

Physiotherapy involves the interaction between physiotherapists, patients/clients, other health professionals, families/whanau, care givers, and communities. This is a people- centred process where needs are assessed and goals are agreed using the knowledge and skills of physiotherapists.

Physiotherapists are registered health practitioners who are educated to practice autonomously by applying scientific knowledge and clinical reasoning to assess, diagnose and manage human function” (Physiotherapy Board of New Zealand, 2018, p. 100).

This description is very broad and does not include specific modalities but rather emphasises the autonomy and professionalism of the physiotherapist in which she/he uses her/his knowledge, skills and clinical reasoning in the people-centred process. This opens the boundaries of scope of practice enormously and allows for a wider variety of modalities and approaches, as long as they are applied in a professional and ethical manner. According to this updated physiotherapy scope of practice, these ‘borderline’ physiotherapists in this study are no longer as marginal as they once believed.

One has only to look at how these participants are currently practising within their new boundaries to see that their approach is more in alignment with the new Physiotherapy Standards framework (Physiotherapy Board of New Zealand, 2018) than the traditional biomedical approach. Specifically the three categories identified in the findings, namely, shifting of perceived physiotherapy role from one of *fixing* to *working with*, acknowledging the bigger picture and finding connection, are all reflected in the both the Physiotherapy New Zealand’s (PNZ) proposed Person and Whānau Centred

Care model (Darlow & Williams, 2018) and New Zealand Health Strategy (2016) proposed 'life-course approach' (Ministry of Health, 2016a). Perhaps this is not surprising. Nicholls (2017) certainly believed it was "here at the margins of what is considered legitimate and orthodox, that the template for innovative new practices and growth in physiotherapy is being forged" (p. 226).

However, whether this broader view of physiotherapy as proposed by the updated physiotherapy scope of practice and the Physiotherapy Standards framework is reflected by current physiotherapy curriculums and courses, physiotherapy research, physiotherapy peers and managers, the public or the healthcare environment itself, is a matter of great contention. Whether by these standards, these participants would still be deemed to be 'marginal' is an interesting debate. But either way, all these factors are a part of a physiotherapist's social construction and so will still influence the *perception* of their scope of practice.

It is this social construction of *perception* that is the most important finding here. Ultimately, in this study, participant's perception that their preferred approach did not align with the physiotherapy scope of practice caused the tension that led to the splitting of scopes of practice. It was through experiencing 'other' ways of practising that they changed their social construction of what was not only allowed in physiotherapy practice but also what 'good physiotherapy' was. This experience opened up the ***Perceived Physiotherapy Scope of Practice***. Consequently, it was this change in *perception* that eventually led to the re-alignment of their personal and professional scopes of practice. This insight offers an alternative way of promoting more inclusive practice. Exposing physiotherapists to different approaches and expanding their understanding of the broad nature of the current definition of the physiotherapy scope of practice, could change their *perception* and open physiotherapists up to different ways of thinking and practising. This could lead to a diverse, innovative and different way of thinking not just about current physiotherapy practice, but about health and wellness and physiotherapy's role in facing the challenges of changing healthcare priorities.

Reflective Practice

*“We do not learn from experience...
we learn from reflecting on experience”
(John Dewey)*

Physiotherapists have traditionally looked externally to other healthcare models when searching for a more inclusive way to practice. Certainly, I had interpreted the professions call for a robust theoretical framework to help the physiotherapy profession adapt to the challenges of a changing healthcare environment in a cohesive, unified way (Edwards & Richardson, 2008; Nicholls & Gibson, 2010; Nicholls, Reid, et al., 2009) to mean a different, more inclusive healthcare model. However, the finding of this study would seem to suggest otherwise. Only one of the participants adhered exclusively to a specific healthcare model. Terri found total resonance with the whole-person approach. This approach allowed her to align her professional and self as it fitted with her underlying values, enabling her to be herself in her practice. Two participants said they used the biopsychosocial model, but on closer enquiry, this adherence was not unequivocal. They were aware of its limitations but still maintained it was more inclusive than the biomedical model alone. For these participants, models were used in the same way as the other experiences during the phase of ***trying on different hats***, where they either experienced discord or found resonance. Mike and Pam only used the parts of the biopsychosocial model that resonated with their beliefs. In a way, it justified them practising in a certain way even though it did not encompass their whole approach. Conversely, Patricia found models to be too restrictive. These findings indicate that healthcare models can be a useful a tool to facilitate a more inclusive approach to practice but only if the model resonates with the physiotherapist’s personal values and beliefs.

Instead of looking externally, these participants found a more inclusive approach by looking internally. They personalised their physiotherapy practice, trying different skills, techniques, approaches, models etc. until they found ones that resonated with their personal values and beliefs. Each individual then incorporated these into their physiotherapy practice. But the integral part of this process was the internal ethical debate as to whether these new aspects fitted into the physiotherapy scope of practice. This debate evoked a lot of stress, fear of judgment, self-reflection and

involved a challenging of both the external and internal perceptions of physiotherapy: our identity, our professionalism, our relationship with our clients and ultimately the role of physiotherapy itself. This debate is still an ongoing process for all these participants. This crucial internal debate that led to the expansion of these participants' scope of practice and consequently, how they incorporated a more inclusive approach to their physiotherapy practice. So instead of looking externally for an answer, perhaps we need to be looking internally, promoting reflective practice in order to better understand our own personal values and beliefs enabling recognition of what and why certain approaches resonate with us. As Nicholls (2017) stated, "It is only by physiotherapists being able to see themselves more clearly, can they know if and how they may need to adapt" (p. 17).

The concept of opening up the physiotherapy boundaries may be a threatening concept to many physiotherapists if they feel it could jeopardise the very identity and status that physiotherapists have fought so hard to achieve. After all, the physiotherapy identity was constructed in the early 20th century by 'owning' a set of quite specific practices, like massage and electrotherapy (Nicholls, 2017). Modalities that are no longer exclusive to physiotherapy. These borders are blurring further with many physiotherapists including non-physiotherapy skills into their practice. Personally, I have added both acupuncture and Pilates to my physiotherapy toolbox, both of which would have been unusual when my mother practised. Neither are part of the physiotherapy core competencies but are now quite acceptable as personal adjuncts to clinical practice. The participants in this study added breathing, nutrition, herbal medicine amongst other modalities. Moreover, there is also an overlapping of professional boundaries. This study identified the blurring of the boundaries between physiotherapy and occupational therapy, psychotherapy and midwifery. But the fear is that by incorporating 'non-physiotherapy' skills and modalities, this will ultimately dissolve the boundaries, and thus physiotherapy will be diluted and lose its identity and professional status.

The findings of this study would suggest that these fears around the loss of physiotherapy's identity and status are unfounded. These participants may have re-negotiated and moved the boundaries but at no stage did these boundaries dissolve.

On the contrary, they were very purposely and clearly put back in place again. It can be argued that this is because these boundaries no longer represent what modalities or skills are included or excluded in physiotherapy practice. Rather, they are the ethical and professional boundaries these participants constructed after a process of self-reflection and self-negotiation. These new boundaries are a combination of the regulatory boundaries, professional and ethical considerations and are grounded in the physiotherapists' personal beliefs and values.

The ethical and professional considerations were evident in the way these participants practiced. They took their responsibilities as health professionals seriously and accepted that regulation is necessary to manage the inherent risks when working with often vulnerable people (Nicholls, 2017). They were conscious of the power imbalances in their practice and were careful not to overstep any ethical lines. They also had a strong sense of professionalism and did not include anything in their practice unless they felt confident and competent to do so. This was accomplished via extra training courses, post-graduate studies, liaising with other qualified health professionals and gaining extensive experience in their chosen skill or field of interest. But they also had a very clear limit in regard to their competency and were sure to refer if they deemed a client's needs to be out of their skill level. However, at no time did they lose (or want to lose) their professional identity. These participants fitted well within the Physiotherapy Standards framework definition of a health professional:

"Its members are governed by codes of ethics and profess a commitment to competence, integrity and morality, altruism, and the promotion of the public good within their domain" (Physiotherapy Board of New Zealand, 2018, p. 9).

The new constructed boundaries also aligned with the practitioner's personal values and beliefs. Being grounded in their personal ethical values made these boundaries clearer and stronger for the practitioner. Consequently, it was because of this grounded-ness and self-awareness that they were also more flexible and could adapt to each patient and situation. When Higgs et al. (1999) highlighted the importance of professional responsibility, they stressed that responsibility has two meanings:

"One is accountability and the other is being responsive to the situation, which requires sensitivity to the needs of the occasion,

flexibility, effective listening and communication skills and creative approaches to managing the unique problem presented” (p. 23).

It was this responsiveness that was apparent in these participants’ new negotiated boundaries. This concept of flexibility coming from self-awareness when working and connecting with others is not new and can once again be found in Authentic Practice in the field of leadership. This concept is called being an *authentic chameleon*:

“To navigate the delicate balance between being yourself and connecting with people requires firstly a clear understanding of your core ideals - the crucial aspects of who you are, what your goals are and what you are not willing to compromise on. Know what your core values are and be prepared to play the chameleon with the rest. You never know what possibilities you might create when you’re flexible enough to go with the flow” (Poll, 2015).

The ‘professional and ethical practitioner’ is highlighted in the Physiotherapy Standards framework (Physiotherapy Board of New Zealand, 2018). However, the findings of this study would suggest this emphasis needs to be combined with self-awareness and reflective practice in order to truly construct robust but responsive professional boundaries. These new boundaries could allow for diversity and creativity within our profession without losing our professional identity. As the boundaries would be grounded in the professional and ethical beliefs of the physiotherapists themselves, this could allow for a physiotherapy practice that is more reflective of the physiotherapists, patients and situations encountered in daily practice. As a result, the physiotherapy profession could well become stronger as well as more adaptable.

Concept of Connection

“Connection is why we’re here;
it is what gives purpose and meaning to our lives”
(Brené Brown)

The findings from this study also offer a glimpse into what this ‘more than biomechanical’ encompasses for these participants. The common thread that runs through these participants’ new approach is the shift away from the separateness or dualism of the biomedical model to one of *connection*. This concept of connection runs through all the four common themes these physiotherapists had when practising within their new boundaries. ***Incorporating Self*** is challenging the separation of personal from professional and connecting the physiotherapy role with personal

values and beliefs about health and illness. ***Learning Humility: Shifting of Perceived Physiotherapy Role*** sees these physiotherapists letting go of the power of being the 'expert' *fixing* the injury or disability. Instead, they move towards forming a more connected, equal partnership *working with* the person on their journey towards their health goals. Even ***Acknowledging the Bigger Picture*** is connecting the presenting physical condition with the person's context and history and acknowledging the implications of their injury on their whole life. Lastly, ***Finding Connection*** showed all the different ways these physiotherapists believed this connection could be realised: through active listening, touch, creating a safe space, promoting the trust in the therapeutic relationship, allowing emotions in the room, and being a person. Each of these methods were a way of creating a connection between the therapist and the client or facilitating a connection for the client with their bodies. These participants believed that connection was necessary for both good treatment outcomes and good health.

This idea of connection is an emerging concept in the physiotherapy literature and has been discussed from many angles. Most authors have explored the methods of connection between the therapist and the client. Bjorbækmo and Mengshoel (2016) examined the significance and meaning of touch in physiotherapy practice. They questioned whether touch was a "connection, inter-connection and the possibility for missed connection in the practice of physiotherapy" (p. 16) and concluded that,

"touch is far more than a cutaneous sensation; it opens the way for a trustful, respectful co-existence between therapist and patient, and in tandem with movement enters a dance-like progress in whose silent, leisured pace there are healing possibilities" (p. 19).

Besley, Kayes, and McPherson (2011) reviewed the core components of the therapeutic relationship and Tasker, Loftus, and Higgs (2012) explored mindful and responsive interpersonal connection in physiotherapy-client relationships.

"Being with someone in a quiet thoughtful way, listening to hear their story without judgement, waiting for (interpersonal) signals to show (therapists) a way to proceed; all these activities have elements of mindful waiting and responsiveness" (p 11).

There is also physiotherapy literature that investigated connecting the physical with other dimensions of health by incorporating holistic wellness models into physiotherapy. Dean (2001) explored merging western and eastern philosophies, in

particular, Neo-Confucianism, into physiotherapy practice in order to re-enforce “the mind-body-spirit connection as a basis for understanding health and healthcare needs” (p. 3). This recognition of the inter-connectedness of all aspects of wellbeing is especially pertinent in Aotearoa New Zealand as it reflects the Māori wellness models of health (Ministry of Health, 2014b). Nicholls et al. (2016) recognised the concept of connectivity in many aspects of physiotherapy practice. Their theoretical article explored connectivity in physiotherapy practice from different philosophical perspectives: phenomenology, symbolic interactionism, structuralism, and postmodernism. They concluded that,

“connectivity offers some innovative and contemporary approaches to health care that offer physiotherapists the opportunity to challenge their established ways of thinking and practising, and align the profession better with the changing economy of healthcare in the 21st century” (p. 168).

The concept of connection is becoming increasingly evident in healthcare and healthcare strategies. The New Zealand Health Strategy (2000) had identified the connection between risk factors (for example obesity) and chronic health problems (such as diabetes and heart conditions) and thus, it called for a more preventative healthcare focus. There is also a growing recognition of the connection between social and economic determinants and health and illness. This is reflected in the Māori health inequalities in Aotearoa New Zealand’s which include socioeconomic, ethnic, gender and geographic inequalities (Ministry of Health, 2002). The proposed ‘life-course approach’ recognised the link between individual health and other factors. As a result, it aimed to address health using a more connected, multi-factorial approach that included education, housing and community (Ministry of Health, 2016a). Certainly, healthcare practitioners have long been urged to have a more connected approach, both with other healthcare teams and with their community, reinforcing primary care as the basis for healthcare strategy (Nicholls & Larmer, 2005).

This study clearly finds that connection is an integral part of a broader approach to physiotherapy practice. Such an approach aligns with both the emerging physiotherapy literature and New Zealand’s healthcare strategies. Connection is a concept that challenges the dualist biomedical way of thinking and practising.

However, the concept of connection is extensive and not fully understood. It offers both a range of theoretical perspectives and practical methods to promote an inclusive approach, but its full extent needs to be explored further. Personally, I believe, that finding connection is what my mum was talking about all those years ago – she just used her smile.

Limitations of Study

This study was conducted using a very specific group of physiotherapists namely musculoskeletal physiotherapists in private practice in Aotearoa New Zealand. It would be informative to see if these findings would be reflected by physiotherapists in other specialities (such as cardio-respiratory or neurological), working under different structures (for example, working in public health) or in different countries.

This study also investigated an ambiguous area of physiotherapy that is not well theorised in the literature. As such, the work of David Nicholls was cited extensively. This was a result of both the limited material in this field and his extensive work in critically reflecting on physiotherapy practice. Nicholls has used Foucauldian discourse analysis to theorise how the history of physiotherapy has shaped our current practice. He has also done extensive work theorising physiotherapy practice in New Zealand and has conjectured the future of physiotherapy in his book *“The end of physiotherapy”*. This study has challenged some of his work, for example, his proposed embodiment approach. On the other hand, it has taken up Nicholls’ call, urging physiotherapist to be able to see themselves more clearly. This study offers unique insights into what is currently happening in physiotherapy practice. As such it offers alternative methods to encourage physiotherapists to find a different way of thinking and practicing.

Implications of Study

In gaining a clearer understanding of how and why these physiotherapists have incorporated a ‘more than biomechanical’ approach to their practice, it has been possible to identify their underlying motivations and obstacles they encountered on this journey. This insight has offered possible avenues for facilitating more holistic and creative ways of thinking about physiotherapy practice, for example, opening up the perception of what is allowed in the physiotherapy scope of practice. It has also

identified common themes that could be explored in future research, namely concepts of authentic practice and connection. This study has also challenged the assumption that a healthcare framework is the overarching physiotherapy framework that physiotherapy needs in order to move away from the biomechanical practice. Instead, these findings suggest that, although healthcare models may be useful tools, reflective practice may be the robust framework needed for future physiotherapy practice.

Summary of Discussion

This chapter presented further interpretation of the study's findings. It illustrated the participants' journey to align their personal beliefs and values with their professional role and find Authentic Practice. It highlighted these physiotherapists' perception that they were practising on the edge of orthodox practice and yet, their approach was more in alignment with the current Physiotherapy Standards framework and healthcare policies, than the traditional biomechanical model. Consequently, educating physiotherapists on what is allowed within the actual physiotherapy scope of practice, and exposing them to different approaches to practice, would enable physiotherapists to feel confident and safe in trying different ways of thinking and practising. The study demonstrated that these physiotherapists didn't need a healthcare model to find a more inclusive way of practising, but rather it was the ethical and professional reflection and self-awareness that ultimately helped them negotiate the new, more inclusive boundaries in which they now practice. As such, promoting a more reflective, deliberate practice may be where the future of physiotherapy should lie. The core concept of connection that ran through these practitioners' more inclusive way of practising was examined and related to the current literature and healthcare strategies. Lastly, the limitation and implications of these findings were presented.

Study Conclusion

This thesis study posed the question: *How are musculoskeletal physiotherapists integrating a 'more than biomechanical' approach into their private practice?* It aimed to gain insight into how and why these physiotherapists incorporated a more inclusive approach and what this approach might look like in practice.

The research study used constructive grounded theory methodology to observe and interview five musculoskeletal physiotherapists who were identified as having a 'more than biomechanical' approach to their private practice. The constructed process named **Re-negotiating the Boundaries** illustrated these participants' journey toward this more inclusive approach including their motivation and obstacles and their ethical, professional and personal self-negotiations that occurred along the way. It also identified common themes as to how their approach had significantly changed as a result of this journey and offers us insight into what a 'more than biomechanical' approach encompassed for these participants. Identifying the underlying themes of authentic practice, power of perception, reflective practice, and the concept of connection that run through the findings, gives a deeper understanding of these participants' motivations and difficulties encountered. However, more significantly, this understanding also offers possible avenues that could be used to promote different ways for physiotherapists to think and practice.

This study contributes to the literature as it investigates an area of physiotherapy that is not well understood or theorised. Therefore, insights gained from this study can help to clarify this grey area and add to the knowledge of what constitutes 'more than biomechanical' in physiotherapy practice.

Furthermore, Nicholls and Gibson (2010) noted that there was an emergence of practice models that promote a more inclusive practice, at a time when the profession was under pressure to reform. This indicated that physiotherapists were trying to respond to the demands of changing healthcare by using different healthcare frameworks. Therefore, this study contributes further to the literature in two ways. Firstly, the critical review of the current healthcare frameworks gives physiotherapists a clearer perspective of these frameworks. By clarifying some of the inconsistencies in the literature and highlighting the advantages and limitations of the individual frameworks for physiotherapy practice, this assists physiotherapists in making informed choices when using these frameworks in practice or future research. Secondly, the findings from this study illustrated that healthcare models and approaches might not be the only avenue by which a more inclusive approach can be achieved. This finding challenges the assumption that a healthcare framework is the

robust theoretical framework that physiotherapy needs if it is to adapt to the challenges of a changing healthcare environment in a cohesive, unified way (Edwards & Richardson, 2008; Nicholls & Gibson, 2010; Nicholls, Reid, et al., 2009). Therefore, this study contributes towards initiating alternative ways of conceptualising and constructing a theoretical framework to help the physiotherapy profession develop.

This study also identified pathways that could facilitate physiotherapists to think and practice in different ways, arguably without losing their professional identity or status. Nicholls (2017) recognised that physiotherapy needs to have a broader perceptive of health and practice if it is to move away from physiotherapy's anchoring biomechanical legacy. Therefore, the findings of this study can be used to open physiotherapists' perspective of health, their role as a physiotherapist and their physiotherapy practice.

For those physiotherapists trying to find a more inclusive approach to their practice this study is invaluable. In learning how and why some physiotherapists have adopted a different approach, other physiotherapists can identify ways to evolve their own practice. These findings are also of interest to physiotherapy professional bodies and educational institutions. In Aotearoa New Zealand, these may include, Physiotherapy New Zealand (PNZ), the Physiotherapy Board of New Zealand, the Auckland University of Technology (AUT) and the University of Otago. Indeed, this study is relevant to any healthcare society that is looking at ways to either promote a more inclusive approach to practice, or to facilitate change in the profession in order to meet the challenge of changing government healthcare priorities and new economy of healthcare (Nicholls, 2017; Nicholls & Larmer, 2005; Reid & Larmer, 2007). Finally, this study will be of interest to future researchers who may wish to extend or compare the findings to other fields of physiotherapy, other countries, or with different epistemological perspectives.

Conducting this research study has extended my personal perspective of physiotherapy and increased my admiration for it as a profession. I have come to appreciate the complexity of physiotherapy practice and gained a better understanding of both our history and the challenges that physiotherapy currently

faces. Throughout both the data collection and analysis phases of this study, I have come to appreciate the value of reflection, both personally and in my physiotherapy practice. I believe that physiotherapists need to have a greater awareness of everything they bring to their practice in order to truly reach their full potential. This is the notion of authentic practice. I truly believe that the future of physiotherapy lies in thoughtful, reflective practice and I will certainly promote this in my own practice, with my peers and those students and juniors I supervise. I am extremely grateful to the participants of this study, for allowing me into their world, for sharing their time and their journey and helping me to explore the personal in their professional practice.

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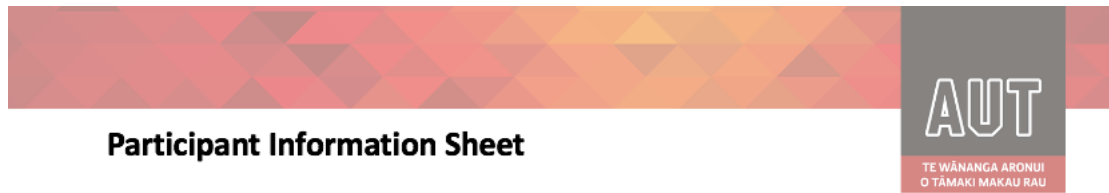
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Appendices

Appendix A: Participant Information Sheet



Participant Information Sheet

Date Information Sheet Produced:

25 September 2015

Project Title

An insight into whether musculoskeletal physiotherapists in private practice are treating more than the biomechanical: A grounded theory study.

An Invitation

I am Kirstin Glasgow, a passionate physiotherapist with 15 years experience in musculoskeletal physiotherapy working in South Africa, United Kingdom and New Zealand. I have post-graduate certificates in Orthopaedic Manipulative Therapy and Acupuncture and am currently studying towards my Masters in Health Science at AUT.

You are invited to participate in this study, which aims to gain insight into how musculoskeletal physiotherapists are actually treating in private practice. This study proposes to determine if practices are strictly biomechanical or are they incorporating other more holistic approaches in their treatments. I believe that it is only by understanding what is currently happening, that the physiotherapy profession can identify where and how it needs to develop further.

Participation in this study is strictly voluntary and there are no consequences or repercussions if you wish to decline or withdraw from the study at any stage prior to the completion of the data collection.

What is the purpose of this research?

The research study is part of my Masters in Health Science and it is hoped that the results will be published in a physiotherapy journal and/or be a basis for further research in this area.

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

This study is purposefully recruiting musculoskeletal physiotherapists that work in private practice. You have been identified as a physiotherapist who has a specific or unique approach to treatment. I wish to gain more insight into your specific approach to treatment as well as how and why you implement this approach.

What will happen in this research?

This study involves two parts: observation and an interview:

Observation:

This composes of a one-to-two days of observation at your physiotherapy clinic. This data collection will include: observation of the clinic itself (its website and marketing strategies, the clinical environment itself, and how patients are processed); observation of the physiotherapist's interaction with their patients in the clinic; and observation of the physiotherapist's treatment of their clients including their formal documentation of that specific session only.

An Interview:

This a semi-structured interview with the physiotherapists themselves that will be audio-recorded and later transcribed.

What are the discomforts and risks?

As this is an observational study of both the clinic and the participating physiotherapist, the participants (and their clients) may feel self-conscious or at worst, judged. However, the aim of this study is to gain an insight into different treatment approaches, not to judge your clinic or your physiotherapy treatment methods.

The second part of this study an interview in which you will be asked to reflect on your own professional history, personal perspectives and past and present clinical practices. This is a very personal, self-reflective process, which could cause you as the participant to feel uncomfortable, self-conscious and possibly judged. There may also be some reluctance to comment on past or present conflicts between personal beliefs and practice protocols, as you may feel your responses may indicate criticism or lack of loyalty towards your past/present employers, funders or professional organisations.

How will these discomforts and risks be alleviated?

Clinic and physiotherapist observation:

- When observing the clinic and the physiotherapist and their treatments of clients, as the researcher I will strive to be friendly and inconspicuous so as to create as little discomfort for all involved.
- Other than you as the physiotherapist needing to ask the client's permission for the researcher to observe their treatment session and the necessary introductions, the observation should not interfere with your normal schedule.
- Field notes will be taken during the treatment observation but again I will strive to be inconspicuous and will not interfere with your patient's treatment in any way.
- If I require clarification about any approaches you used, I will wait until after the treatment session has finished prior to asking questions.

Treatment sessions:

- Participating patients will be reassured that any data recorded during their treatment session will be about the physiotherapist's approach to his/her treatment and not about the patient themselves.
- Likewise, observations about the patient's notes for that session will be about how the treatment is recorded and will not include any specifics about the patient themselves.
- Any information the client reveals as part of their treatment session will be treated with utmost confidentiality.
- If the patient agrees for their treatment session to be observed, they will be required to sign a Consent Form.
- Patient participation is strictly voluntary and they will be assured that they are free to decline without any repercussions to their treatment.

The Interview:

- The interview will be held in a location and at a time that suits you, the physiotherapist. Ideally this would be in a room at your clinic, where privacy and confidentiality can be maintained and at a time when you are free from work responsibilities.
- A Dictaphone will be used to record the interview.
- You will be asked about your specific approach to treatment, your views, beliefs and influences. Any information gathered will be more valuable if you are completely forthright and honest.
- Information disclosed in the interview will be handled in a strictly confidential manner with no judgment or repercussions personally or toward your professional career.
- If any of the questions make you feel uncomfortable, you are in no way obligated to answer. You can also request the recorder be switched off at any time.
- Participants will be given the opportunity to review their interview transcripts and clarify, comment further or retract any part of the interview if they wish.

What are the benefits?

Participants:

It is hoped that as participants, you will benefit by sharing your unique approach toward treatment. The reflection process of the interview may also be used to gain new self-awareness that could help you to purposively improve treatment outcomes.

Researcher:

As the researcher, I will benefit by developing and progressing my research skills. Self-reflection will also allow me to contemplate on my own clinical approaches, thus enabling me to become a better physiotherapy clinician. This research will contribute towards my Master in Health Science qualification.

Physiotherapy Profession:

It is also hoped that this study will be published and read by New Zealand physiotherapists encouraging them to reflect on their own beliefs and practices. The wider community may benefit by being treated by more informed physiotherapists, hopefully promoting a more empowering, long-term management plan of care and support for physiotherapy patients.

By gaining an insight into what is currently happening in private practice, the physiotherapy profession can identify where and how it needs to develop further. It is hoped that this study may also be used as a basis for further research that could contribute towards the physiotherapy profession developing a robust theoretical framework that is needed to help the physiotherapy profession to make a paradigmatic shift from the biomedical

model to a more holistic approach to physiotherapy treatment. Physiotherapists could then move forward in a cohesive, united way and meet the challenges of rapidly changing health priorities.

How will my privacy be protected?

The privacy of the participants is a priority in this study:

- Participant contact details and all data collected during the study will be stored in a locked drawer in the researchers study and will not be shared for any reason outside the scope of the study.
- Any photographs taken during the observation of the practice will strictly be used as raw data for analytical purposes only. They will not include any people and nor will they be used in any way in the findings, thesis or publications resulting from this study.
- Each participant will be assigned an ID tag. Any relevant details about the participants that may be used for analytical purposes will be only linked using these ID tag.
- The interviews and the transcripts thereof, are strictly confidential and any information disclosed in the interview will be handled in a strictly confidential manner with no judgment or repercussions personally or toward your professional career.
- The data collected will only be used for the purpose for which it has been collected, namely this Masters thesis. However, the findings of this research may be used for academic presentations and publications in the future.
- Once the study has been completed, the consent forms and data collected will be stored in separate locked filing cabinets in the supervisor's office for 10 years and then be destroyed by the Department administration.

In this study, only a limited confidentiality is offered.

- Every effort will be made to protect your confidentiality in any report of the research, however, due to the nature of this study with a small pool of well-known persons, there is a possibility that you may be recognized as a participant in the research.

Therefore, as participants, you will be given a chance to review your interview transcripts and clarify, comment further or retract any part of the interview.

What are the costs of participating in this research?

There is no cost to participating in this research other than your time:

- The observation part of the study will take one-to-two days at your place of work. This observation should not interfere with your normal physiotherapy schedule.
- The interview is expected to take about 1 hour but it is advised to schedule 2 hours in case of any unforeseen contingencies

What opportunity do I have to consider this invitation?

Please feel free to take time to consider this invitation and do ask any questions you may have either by email or telephone to the details below. I am also happy to meet with you to discuss any concerns you may have.

It is kindly requested that you respond to this invitation within 2 weeks of receiving it.

How do I agree to participate in this research?

If you agree to participate in this valuable study, please contact myself (contact details below) and I will send you a Consent Form for you to sign and organise a convenient time both the observations and interviews.

Will I receive feedback on the results of this research?

On the Consent Form there is a question that asks if you'd like feedback on this research project. If you tick the box, a summary of the findings will be sent to you on completion of this study.

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

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, David Nicholls, david.nicholls@aut.ac.nz, (09) 921-9999 ext 7064.

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

Whom do I contact for further information about this research?

Researcher Contact Details:

Kirstin Glasgow, kirstin.glasgow@yahoo.co.nz

Project Supervisor Contact Details:

David Nicholls, david.nicholls@aut.ac.nz, (09) 921-9999 ext 7064.

Approved by the Auckland University of Technology Ethics Committee 20 October 2015 AUTEC Reference number
15/357

Appendix B: Participant Consent Form

AUT

TE WĀNANGA ARONUI
O TĀMAKI MAKĀU RAU

Participant Consent Form

Project title: *An insight into whether musculoskeletal physiotherapists in private practice are treating more than the biomechanical: A grounded theory study.*

Project Supervisor: *David Nicholls*

Researcher: *Kirstin Glasgow*

- ☐ I have read and understood the information provided about this research project in the Information Sheet dated 1 March 2017.
- ☐ I have had an opportunity to ask questions and to have them answered.
- ☐ I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed. I understand that I will have a chance to review my transcripts to clarify, add or retract any information therein.
- ☐ I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.
- ☐ If I withdraw, I understand that all relevant information including tapes and transcripts, or parts thereof, will be destroyed.
- ☐ I understand the confidentiality provisions for this research.
- ☐ I agree to take part in this research.
- ☐ I would be willing to be contacted by the researcher in the next 5 years, in order to ask permission to use this study's data for further research (please tick one): Yes ☐ No ☐
- ☐ I wish to receive a copy of the report from the research (please tick one): Yes ☐ No ☐

Participant's signature:

Participant's name:

Participant's Contact Details :

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.....
.....

Date:

Approved by the Auckland University of Technology Ethics Committee 20 October 2015 AUTEK Reference number 15/357

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

Appendix C: Patient Information Sheet

AUT

TE WĀNANGA ARONUI
O TĀMAKI MAKĀU RAU

Patient Information Sheet

Hi, I am Kirstin Glasgow, a musculoskeletal physiotherapist who is currently studying part-time towards my Masters in Health Science at AUT.

I am doing a research project investigating whether musculoskeletal physiotherapists in private practice are treating more than the biomechanical: A grounded theory study.

Part of this study includes observing the participating physiotherapist whilst they are treating their patients and looking at how that treatment session is documented in their treatment notes.



You have been asked if you would mind my observing your treatment session and looking at the physiotherapist's notes of that session. This means that I will be present taking field notes during your treatment but I will not interfere with your treatment in any way.

Please be reassured that:

- any information that may be revealed as part of your treatment session will be treated with utmost confidentiality;
- any data recorded during your treatment session will be about the physiotherapist's approach to your treatment and not about you or your condition;
- any observations about the your notes for that session will be about how the treatment is recorded and will not include any specifics about you or your condition.

You will not be identified in the study in any way.

Your participation in this study is strictly voluntary and you are free to decline without any repercussions to your treatment.

If you are happy to be part of this study, please sign the Patient Consent Form attached.

Thank you.

Researcher Contact Details:

Kirstin Glasgow, kirstin.glasgow@yahoo.co.nz

If you have any concerns about this project:

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, David Nicholls, david.nicholls@aut.ac.nz, (09) 921-9999 ext 7064.

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

Approved by the Auckland University of Technology Ethics Committee 20 October 2015 AUTC Reference number 15/357

Appendix D: Patient Consent Form



Patient Consent Form

Project title: *An insight into whether musculoskeletal physiotherapists in private practice are treating more than the biomechanical: A grounded theory study.*

Project Supervisor: *David Nicholls*

Researcher: *Kirstin Glasgow*

- ☐ I have read and understood the information provided about this research project in the Information Sheet dated 25 September 2015.
- ☐ I have had an opportunity to ask questions and to have them answered.
- ☐ I understand that the researcher will be present and taking field notes during my physiotherapy treatment session but this observation will not interfere with my treatment in any way.
- ☐ I understand that the researcher is observing the physiotherapist's approach and treatment methods and is not recording data about me or my condition.
- ☐ I understand that any observations about my treatment notes will be about how the treatment is recorded and will not include any specifics about me or my condition.
- ☐ I understand that I will not be identified in any way.
- ☐ I understand that my participation is strictly voluntary and I am free to decline without any repercussions my treatment.
- ☐ I agree to take part in this research.

Patient's signature:

Partient's name:

Patient's Contact Details :

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.....
.....

Date:

Approved by the Auckland University of Technology Ethics Committee 20 October 2015 AUTEC Reference number 15/357

Note: *The Patient should retain a copy of this form*

Appendix E: Access Permission Form



Access Permission Form

Project title: *An insight into whether musculoskeletal physiotherapists in private practice are treating more than the biomechanical: A grounded theory study.*

Project Supervisor: *David Nicholls*

Researcher: *Kirstin Glasgow*

- ☐ I have read and understood the information provided about this research project in the Information Sheet dated 1 March 2017.
- ☐ I have had an opportunity to ask questions and to have them answered.
- ☐ I understand that notes will be taken about the clinic and its procedures, the participating physiotherapist will be observed in the clinic and the subsequent observations of their treatments of clients and notes will be used as data for this study.
- ☐ I understand that I may withdraw my clinic at any time prior to completion of data collection, without being disadvantaged in any way.
- ☐ If I withdraw, I understand that all relevant information including tapes and transcripts, or parts thereof, will be destroyed.
- ☐ I understand the confidentiality provisions for this research
- ☐ I agree to allow access to my clinic for the purpose of this research.
- ☐ I wish to receive a copy of the report from the research (please tick one): Yes ☐ No ☐

Clinic Owner's signature:

Clinic Owner's name:

Clinic Owner's Contact Details :

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.....

.....

.....

Date:

Approved by the Auckland University of Technology Ethics Committee 20 October 2015 AUTEK Reference number 15/357

Note: The Clinic Owner should retain a copy of this form.

Appendix F: List of Indicative Questions for Interviews

INDICATIVE QUESTIONS FOR SEMI-STRUCTURED INTERVIEW

First explain that this research is interested in the participants experience as a physiotherapist especially in regard to how what approach they use when treating a client.

- How would you describe your approach to physiotherapy treatment? (can you give examples?)
- Does this approach differ to how you may have approached treatment in the past? (can you give examples?)
- What influences have you had that lead you to your current approach to treatment? (expand if necessary)
- What are your views on biomedical practice in physiotherapy?
- What are your views on holistic practice in physiotherapy?
- How do you think physiotherapy is changing and evolving?

Appendix G: AUTECH Ethics Approval Letter



AUTECH Secretariat

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

20 October 2015

David Nicholls
Faculty of Health and Environmental Sciences

Dear David

Re Ethics Application: **15/357 An insight into whether musculoskeletal physiotherapists in private practice are treating more than the biomechanical: A grounded theory study.**

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

Your ethics application has been approved for three years until 20 October 2018.

As part of the ethics approval process, you are required to submit the following to AUTECH:

- A brief annual progress report using form EA2, which is available online through <http://www.aut.ac.nz/researchethics>. When necessary this form may also be used to request an extension of the approval at least one month prior to its expiry on 20 October 2018;
- A brief report on the status of the project using form EA3, which is available online through <http://www.aut.ac.nz/researchethics>. This report is to be submitted either when the approval expires on 20 October 2018 or on completion of the project.

It is a condition of approval that AUTECH is notified of any adverse events or if the research does not commence. AUTECH approval needs to be sought for any alteration to the research, including any alteration of or addition to any documents that are provided to participants. You are responsible for ensuring that research undertaken under this approval occurs within the parameters outlined in the approved application.

AUTECH grants ethical approval only. If you require management approval from an institution or organisation for your research, then you will need to obtain this.

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

All the very best with your research,

A handwritten signature in black ink, appearing to read 'K O'Connor'.

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

Cc: Kirstin Glasgow kirstin.glasgow@yahoo.co.nz

Appendix H: Māori Research Facilitation Committee Approval Letter



Private Bag 92006
Auckland 1142, NZ
T: +64 9 921 9999
www.aut.ac.nz

29 May 2015

Kirstin Glasgow
School of Clinical Sciences
AUT University

Tēnā koe

This letter is in relation to the study entitled '*An insight into whether musculoskeletal physiotherapists in private practice are treating more than the biomechanical: A grounded theory study*' presented by Kirstin Glasgow, Masters student, AUT, to the AUT Faculty of Health and Environmental Sciences Māori Research Facilitation Committee on 21 May 2015.

The Committee comprises representatives from the District Health Boards and community Hauora Māori sectors, along with senior AUT academics. The purpose of the Committee is to foster research engagement between faculty research staff and Māori communities or groups and research practice responsive to issues important to Māori health and Māori development and advancement.

The Committee supports this study. The following recommendations are qualifications to this support:

- Clarify the purpose of the study and potential change arising from the investigation.
- A Māori physiotherapist is to be included as a participant in the study.
- Ensure that the different stories are acknowledged. The committee had concerns about the amalgamation of all information together in theory development.

Kirstin Glasgow is required to submit a progress report to the Faculty administrator within one year of this presentation, i.e. no later than 21 May 2016. No further presentations to the Māori Research Facilitation Committee can occur until progress in response to the recommendations outlined above, has been reported.

If further information is required please contact Brigitte van Gils, Administrator, Faculty Postgraduate and Research Office, on 09 921 9999 extension 7775, or e-mail: bvangils@aut.ac.nz

Nāku noa, nā

A handwritten signature in blue ink, appearing to read 'K Haswell'.

Kate Haswell, Associate Dean (Māori Advancement)

