Māori Patient Experiences of Hand Therapy in Tāmaki Makaurau

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Abstract

In Aotearoa, Māori are more likely to sustain a life changing injury and are less likely than non-Māori to access physical rehabilitation. Hand therapy, a subdiscipline of physical rehabilitation, offers advice and treatment for conditions affecting the upper limb. Little is known about Māori service user experiences of physical rehabilitation, including hand therapy. This research aimed to investigate Māori patient experiences of hand therapy and to explore solutions proposed by Māori to enhance culturally safe delivery of hand therapy services. The research was underpinned by a Tiriti o Waitangi informed approach and was completed in two phases.

Phase one was a scoping review of the literature that aimed to synthesise what is currently known about Māori experiences of physical rehabilitation in Aotearoa. Four themes were created from data found in published and grey literature. The themes provide a narrative that describes Māori expectations for negative health encounters. Negative experiences during rehabilitation can be mitigated by including whānau, recognising Te Ao Māori, and providing mana-enhancing care. The findings from the scoping review informed the interview guide for phase two of the research.

Phase two was a qualitative study that aimed to explore Māori experiences of hand therapy in Tāmaki Makaurau and solutions for enhancing hand therapy services for Māori. Semi-structured, exploratory interviews were carried out with 15 Māori hand therapy patients. Five themes were generated using reflexive thematic analysis. The qualitative study findings demonstrated that the initial connection with a therapist and first impressions of a clinic impacted on the hand therapy rehabilitation journey. Hand therapy was described as a different type of health service that was easier and more enjoyable to engage with compared to acute and primary care services. The key feature that stood out for participants was the taonga of the relationship formed with their hand therapist. Solutions for improving the cultural safety of hand therapy services included genuine incorporation of Te Ao Māori to facilitate cultural connections and expanding services for the provision of holistic and wraparound care for Māori patients, whānau, and communities.

This research found that there are pockets of individual clinicians demonstrating culturally safe practice. Hand therapists, and other rehabilitation professionals, hold a privileged position with Māori when a meaningful connection is formed leading to a therapeutic relationship that is held as a taonga. This treasured relationship opens opportunities for hand therapists to normalise positive health experiences for Māori, offer options to engage with Te Ao Māori during appointments, and provide care that shelters hauora Māori.

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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 used artificial intelligence tools or generative artificial intelligence tools (unless it is clearly stated, and referenced, along with the purpose of use), 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.

06/09/2024

Signature Date

Co-Authored Works

Publications

The qualitative study protocol was published in the New Zealand Journal of Occupational Therapy in April 2024 (Sheehy et al., 2024a). The article can be found in Appendix N.

The scoping review was published in Disability and Rehabilitation in July 2024 (Sheehy et al. 2024b). The article can be found in Appendix O.

Presentations

The scoping review findings were presented at Te Tiriti Based Futures online conference March 2024 as part of the pecha kucha marathon (Te Tiriti Based Futures, 2024).

The scoping review findings were presented as a free paper at the Australian Hand Therapy Conference August 2024.

An abstract has been accepted for presentation of the scoping review findings at The Occupational Therapy New Zealand Clinical Workshops October 2024.

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Ehara taku toa, i te toa takitahi, engari he toa takitini

My success should not be bestowed onto me alone,

as it was not individual success but success of a collective

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Appendix N contains the qualitative protocol published in the New Zealand Journal of Occupational Therapy (Sheehy et al., 2024a). Copyright 2024 OTNZ-WNA (Inc.)

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Ethics Approval

Ethical approval was obtained from the Auckland University of Technology Ethics Committee on 21/03/2023. Approval code: 23/12. The approval letter can be found in Appendix A.

Counties Manukau Health localities approval was obtained on 31/05/2023. Study number 1739. The localities approval letter can be found in Appendix B.

Te Reo Māori Glossary

This glossary provides English translations of te reo Māori terms used throughout this thesis. To help with the flow of the writing, English translations are presented in this glossary as a reference for the reader, rather than adding bracketed translations throughout the text. Translations have been sourced from Te Taura Whiti i Te Reo Māori (2024) and Te Aka Māori Dictionary (Moorfield, 2024). English is known to fall short in its ability to capture cultural nuance and meaning in te reo Māori terms, therefore these translations capture the nearest possible description to Te Ao Māori concepts in English (Barnes, 2013).

Te Reo Māori	English
Āhua	Character, demeanour
Aotearoa	New Zealand
Awhi	To support, surround, embrace
Haumaru	Shelter, safety
Hauora	Health, wellbeing
Hapū	Subtribe or clan
Hei kai kei aku ringa	Māori proverb: Food at the end of my hands
Hīkoi	Walk
Hononga	Connection, bond
Hui	Meeting
Iwi	Tribal group
Kai	Food
Kanohi-ki-te-kanohi	Face to face
Kapa haka	Māori cultural performance
Karakia	Prayer, chant, incantation
Karanga	A call of welcome
Kaupapa	Purpose, agenda, plan, matter, issue
Kawakawa	Native plant, often used for medicinal purposes
Kāwanatanga	Government, governorship Article one of Te Tiriti. The Queen’s representative can exercise governorship over British subjects
Kawa whakaruruhau	Cultural safety
Kete	Basket

Te Reo Māori	English
Koha	Gift
Kōrero	Conversation, story
Korowai	Cloak
Kotahitanga	Unity, togetherness
Mahi	Work
Mahi harakeke	Flax weaving
Mana	Prestige, power, authority, control, status
Mana whenua	An iwi or hapū with territorial authority in an identified area
Māori	Indigenous people of New Zealand
Manaaki	Support, care
Manaakitanga	To support, take care of, be kind towards, be hospitable
Marae	Māori meeting place
Mātauranga	Knowledge
Mauri	Life force, life essence, energy
Mauri ora	Flourishing life force
Mihi	Speech of greeting or introduction
Ōritetanga	Equality, equal opportunity, equity Article three of Te Tiriti. Accords to Māori the same rights as British subjects, in addition to their rights already enjoyed in their own society
Papatūānuku	Mother Earth
Pepeha	Introduction of self
Pākehā	Non-Indigenous New Zealander, usually of European descent
Poi	A ball on a string, swung or twirled rhythmically to music
Pōwhiri	A formal welcoming ceremony on to a marae
Rākau rongoā	Herbal medicine, native plant-based remedies
Rangatira	Chief, leader
Raranga	Weaving
Rongoā Māori	Māori healing and medicine
Raru	Fuss
Taha hinengaro	Feelings, emotional or mental wellbeing (dimension of Te Whare Tapa Whā model)

Te Reo Māori	English
Taha tinana	Physical body wellbeing (dimension of Te Whare Tapa Whā model)
Taha wairua	Spiritual wellbeing (dimension of Te Whare Tapa Whā model)
Taha whānau	Family wellbeing (dimension of Te Whare Tapa Whā model)
Tāmaki Makaurau	Auckland
Tāne	Men
Tangata Tiriti	Treaty person
Tangata whenua	People of the land, Māori
Taonga	Treasure, treasured possession
Tapu	Sacred, prohibited, restricted
Tauiwi	Non-Māori, usually referring to New Zealand immigrants
Tautoko	Support
Te Ao Māori	Māori worldview
Te Ao Pākehā	Pākehā worldview
Te reo Māori	Māori language
Te taiao	The natural environment
Te Tiriti o Waitangi (Te Tiriti)	A treaty signed between Māori and English representatives of Queen Victoria in 1840
Te Whare Tapa Whā	A meeting house with four walls Māori health model developed by Mason Durie (1985)
Tika	Right, correct
Te Ara Tika	The right way
Tikanga	Māori protocols and practices
Tino rangatiratanga	Self-determination, sovereignty, autonomy Article two of Te Tiriti. The Queen recognises and upholds paramount authority of Māori over their lands, villages, and treasures
Tīpuna	Ancestors
Tohunga	Expert
Urupā	Burial ground, cemetery
Wahine/Wāhine	Woman/Women
Waiata	Songs, chants
Wairua	Vibe, spirit, essence

Te Reo Māori	English
Wairuatanga	Spirituality Article four of Te Tiriti. A verbal agreement that the several faiths of Pākehā and Māori custom and religion will be protected by the Queen’s representative
Waka hourua	Double-hulled waka
Wānanga	Meeting, forum, or gathering for discussion and sharing information
Whakamā	To feel ashamed, shy, embarrassed
Whakamana	Empowerment
Whakataukī	Proverb
Whaikōrero	Formal speech, oratory
Whakaaro	Thoughts
Whakairo	Carving, sculpting
Whakaora ngangahau	Occupational therapy
Whakapapa	Genealogy, ancestry
Whakawhanaungatanga	Creating connections, forming relationships
Whakawhiti kōrero	Two-way conversation or exchange
Whanaungatanga	Relationship, kinship
Whānau	Extended family group
Whānau ora	Family health and wellbeing
Wharepaku	Toilet
Whenua	Land

Chapter 1 Introduction

1.1 Introduction

This chapter provides background and rationale for the research conducted for this thesis. The aims, objectives, and research questions will be described. Key concepts are defined in relation to their application to this research. Finally, the thesis structure is outlined.

1.2 Background

The pervasive health inequities that exist between Indigenous and non-Indigenous populations worldwide have been deemed one of the most urgent modern day humanitarian issues (Jones et al., 2019; Nelson et al., 2021). In a study of commonwealth countries, Aotearoa ranked eighth of eleven countries in terms of health equity (Chin et al., 2018). Māori health inequities manifest in significantly worse mortality and morbidity rates compared to non-Māori, across a range of indicators including communicable disease, chronic illness, injury, mental health, and disability (Health Quality & Safety Commission New Zealand, 2019; Zambas & Wright, 2016).

Māori rights to equitable healthcare are set out in article 24 of the United Nations Charter for Rights of Indigenous Peoples, which was ratified in Aotearoa, and in the text of Te Tiriti o Waitangi (hereafter Te Tiriti). To address the disparities that exist, healthcare professionals in Aotearoa have responsibilities to recognise and uphold the commitments of Te Tiriti and design services that are suitable for Māori. There is a growing body of literature reporting Māori consumer experiences of healthcare services in Aotearoa. However, little is known regarding the experiences of Māori in their encounters with physical rehabilitation services, including hand therapy. Therefore, this research sought to explore Māori experiences of hand therapy and add to the body of knowledge on this topic.

1.3 Clinical context

1.3.1 Physical rehabilitation

Treatment modalities for physical conditions and injuries existed in Aotearoa long before colonisation. Māori physical therapies were implemented as one part of a spectrum of holistic hauora practices. The holistic hauora approach differs from western medicine’s reductionist separation of specialties that was introduced to Aotearoa by settlers (Durie, 1998; Nicholls et al., 2016). In their exploration of the history of physical therapies in 19^{th} century Aotearoa, Nicholls and Harwood (2016) suggested that the individualism and social isolation that characterised the colonisation of Aotearoa limited the provision of communal health services, including rehabilitation. Nicholls and Harwood (2016) commented that this was surprising because the heavy labour of the time led to ailments that would have benefited from physical therapies. Treatments such as massage, manipulation, and remedial exercises had become popular in other colonised countries such as America and Australia. The only known centre in Aotearoa that provided physical therapies during the 19^{th} and early 20^{th} century was Rotorua Spa, which was set up mainly for economic gain (Nicholls & Harwood, 2017).

Rehabilitative medicine is a relatively young profession, with its beginnings in the early 20th century (Atanelov, 2015). The poliomyelitis epidemic and large numbers of injured soldiers returning from World War I saw an increase in costs for institutional care. So, individuals were provided with education and vocational training to rehabilitate them so that they might re-enter the workforce and become economically productive members of society (Russell, 2011). In Aotearoa, the labour government of 1935-1949 established a welfare state following the 1930s depression. The health system at the time encompassed free hospital treatment and independently run primary healthcare (Cumming et al., 2014). Coupled with medical and surgical advancements that were occurring, the provision of physical therapies and rehabilitation in Aotearoa began to increase (Nicholls & Harwood, 2017). This configuration has largely influenced the health system and provision of rehabilitation in Aotearoa today.

Rehabilitation is now deemed an essential component of universal health coverage and is a common pathway of care following a musculoskeletal injury, illness, and acquired disability (World Health Organisation, 2023). Rehabilitation can be described as a set of measures that can assist those with a lived experience of disability to achieve and maintain optimal functioning and quality of life (CARF International, 2023; Escorpizo, 2014). Rehabilitation is multimodal and interdisciplinary in nature, meaning it encompasses many interventions that can be provided by a variety of clinicians in different health settings, including medical, nursing, and allied health professionals. Hand therapy is a division of physical rehabilitation.

1.3.2 Hand therapy

By the end of World War II, the need for rehabilitation professionals was generally well recognised on a global scale. During this time occupational therapy was brought to the attention of the medical world and the term physiotherapy was coined. Both professions delivered a variety of therapies for the restoration of function including application and removal of casts and splinting (McMeeken, 2014; Scaletti et al., 2008). These types of treatments were early signs of the emergence of the hand therapy profession, although it was not then known by that name. Hand therapy evolved alongside plastic and orthopaedic surgery. These surgical disciplines were founded during the acute care and rehabilitation of upper limb injuries sustained by soldiers (Patel et al., 2021). The New Zealand Association of Hand Therapists (now Hand Therapy New Zealand) was established in 1984 (Hand Therapy New Zealand, 2024).

Today, hand therapists are a group made up of occupational therapists and physiotherapists. Contrary to trends overseas, there are more physiotherapy than occupational therapy trained hand therapists in Aotearoa (Timmins et al., 2023). In July 2024, 28% of hand therapists registered with Hand Therapy New Zealand were occupational therapists (personal communication, July 22, 2024). Hand therapists provide rehabilitation for individuals who have an upper extremity condition resulting from trauma, disease, or congenital deformity (Hand Therapy New Zealand, 2024). Hand therapy in Aotearoa is mostly provided by private practices, funded primarily by the Accident Compensation Corporation (ACC). Individuals can pay privately to see a hand therapist or apply for cover through private health insurance. There are also publicly funded, hospital and outpatient-based hand therapy services (Timmins et al., 2023).

1.4 Researcher positionality

Qualitative research acknowledges that the researcher exists as a part of the social world being studied (Palaganas et al., 2017). The researcher's identity cannot be isolated and as such is celebrated for its contribution to the co-construction of knowledge in qualitative research (Carpenter & Suto, 2008). It is essential that the researcher is consciously aware of their personal, clinical, and theoretical positioning to strengthen research decisions, processes, rigour, and outcomes (Thorne, 2016).

Tōku pepeha

I te taha o tōku pāpā ko Cooliboy te maunga, ko Bandon te awa

I te taha o tōku māmā ko Killiney te maunga, ko Liffey te awa

Ko Ngāti Airangi tōku iwi

Nō Dublin ahau

He Tangata Tiriti ahau

Kei Tāmaki Makaurau tōku kāinga ināianei

He kai whakaora ringaringa tōku turanga mahi

Ko Sheehy tōku whānau

Ko Becky tōku ingoa

I am an Irish immigrant to Aotearoa. I work as an occupational therapist and registered hand therapist. I had not anticipated that moving to Aotearoa would challenge my worldview or open my eyes to culturally different ways of knowing the world. Up until that point in my life I had largely been surrounded by people with similar backgrounds and ways of thinking. My understandings of health and wellbeing were largely influenced by the Western worldview engrained in occupational therapy. Although I learned that ethnicity and culture make up the components of a person, throughout my career, I found the concept of culture to be ambiguous. I believed culture held relevance only during discussions of disability models, and so gave little regard to it in practice. I subscribed to the thinking that the health system was a-cultural, meaning that health systems are not defined by any culture and health practices and services are universal (Pihema, 2022). Overtime working in Aotearoa, I have learned to critically examine the origins of occupational therapy within a Western view of health and think more deeply about how this has influenced my clinical practice and what I consider to be a priority for the rehabilitation of patients.

Since moving to Aotearoa and working in the health system, I have become increasingly aware of different cultural views of health. My realisation of the magnitude of the ways in which the health system and wider society disadvantaged Māori, and disregarded hauora Māori approaches, was gradual. In my clinical practice, interactions with Māori patients and whānau exposed my ignorance of working in culturally safe ways and pushed me to reflect on myself as a therapist and indeed as a person. For example, I have upset whānau by excluding them from discharge planning and I have blamed patients for missing appointments without appreciating the multitude of reasons that can filter into attendance for Māori. Changes to my practice that have occurred over time include increased collaboration with whānau, booking longer appointment times with Māori to enable whakawhanaungatanga, and using te reo Māori in greeting. Professional learning opportunities and postgraduate study have enabled me to develop a deeper understanding of historical, socio-economic, and political determinants that influence the status of Māori health. I have also become cognisant of the negative effects of healthcare practitioner bias, discrimination, institutional and systemic racism on Māori heath experiences. My growing concerns regarding equitable and culturally safe delivery of hand therapy services, that arose from my personal learning journey, formed the basis for selecting the topic of investigation for the research described in this thesis.

1.5 Aims and objectives

The primary aim of the research described in this thesis was to explore the experiences of Māori patients when engaging with hand therapy services in Tāmaki Makaurau. Increasing healthcare professionals' understandings of Māori health through research can assist them in contributing to organisations that focus on Māori health aspirations that are evidence-based (Scott, 2014). Therefore, the research sought to inform hand therapists about their interactions with Māori patients.

To inform the background to this thesis, a second aim was to identify from the literature, how Māori experience physical rehabilitation services in Aotearoa. A scoping review was undertaken to explore what is currently known about Māori experiences of physical rehabilitation, an area of clinical practice to which hand therapy belongs. It was intended that the findings from the scoping review would inform a qualitative study specifically looking at Māori experiences of physical rehabilitation in a hand therapy context.

During the consultation phase, I discussed the research aims with the research team at Counties Manukau Health. The Māori research advisor suggested expanding the research objectives to include a solution focus. Walsh et al. (2017) described solution-focused research as strength-based and disengaged from problem-focused, deficit thinking. It is a method of collaboratively identifying what works with a view to developing pathways to positive outcomes. In discussion with the Māori research advisor, we agreed that there was already sufficient evidence reporting Māori health inequities and so this research should explore solutions for the advancement of Māori health. An additional aim of this research was therefore included to explore solutions proposed by Māori for enhancing their experiences of hand therapy services. It was intended that the research findings would provide guidance to hand therapists for the provision of culturally safe hand therapy services for Māori.

1.6 Research questions

- What are Māori experiences of physical rehabilitation services in Aotearoa according to literature from the past ten years?
- What are Māori patients' experiences of hand therapy services in Tāmaki Makaurau?
- What solutions do Māori patients propose to enhance hand therapy service delivery for Māori?

1.7 Definition of key concepts

The following concepts are discussed throughout this thesis. Each concept is defined with relevance to this research.

1.7.1 Health equity

The World Health Organisation (WHO) definition of health equity states that it is the absence of unfair and avoidable or remediable differences in health among population groups defined socially, economically, demographically, or geographically (World Health Organisation, 2024). Of note, equity is distinct from equality, it is the recognition that different groups in society may require different approaches and resources to achieve the same health outcome (Ministry Of Health, 2018). In Aotearoa, Māori rights to health equity are stipulated in Te Tiriti and in the United Nations Charter for Rights of Indigenous peoples. The articles of Te Tiriti affirm Māori sovereignty over their taonga, including health and health practices, guaranteed Māori the same rights and privileges as British subjects, and assured equity to Māori (Came et al., 2017). Article 24 of the United Nations Charter for Rights of Indigenous peoples affirms that States must take the necessary steps to achieving the full realisation of Indigenous peoples' rights to equal access to health services and attaining the highest possible standard of health (United Nations, 2007).

1.7.2 Cultural safety

Cultural safety involves individuals, organisations, and systems undergoing a process of developing critical consciousness through reflexivity. Culturally safe health services attend to a multitude of factors that can impact on a healthcare encounter. Culturally safe clinicians thoughtfully consider the influence of factors such as cultural biases and assumptions, power relationships, and historical, institutional, and social constructs. Recipients of healthcare are empowered to determine whether an encounter is (or is not) culturally safe (Wepa, 2015). Culturally unsafe practice is any act or system delivery that diminishes, demeans, or disempowers the cultural integrity, identity, or wellbeing of those from another culture (Ronald et al., 2020; Wepa, 2015).

Culturally safety is synonymous with the term kawa whakaruruhau because the concept of cultural safety arose in the nursing profession of Aotearoa in the late 1980s. The term cultural safety was adopted from a question that arose at a nursing hui in 1988. A hui participant commented that the importance of ethical safety and legal safety were spoken of as requirements for graduate nurses, but what of cultural safety. The development of the concept of cultural safety is attributed to the work of Dr. Irihapeti Ramsden, whose inaugural publications on this topic include Kawa Whakaruruhau – Cultural Safety in Nursing Education in Aotearoa (Ramsden, 1990). Cultural safety is a living concept that is constantly evolving. Recent work by the Nursing Council of New Zealand (2024) has recommended separation of the term kawa whakaruruhau from cultural safety. Kawa whakaruruhau is underpinned by Te Ao Māori values and so the term should be used more specifically to discuss cultural safety for Māori.

1.8 Thesis structure

This chapter, Chapter 1 , described the rationale for this research that arose from Māori health issues frequently seen in the literature and my clinical observations. The research questions were stated and key concepts important to the research were defined.

Chapter 2 sets the scene for the research. The clinical settings of rehabilitation and hand therapy in Aotearoa are described. The historical and contemporary contexts that have impacted on the health status of Māori are outlined. The philosophical underpinnings including critical and interpretive paradigms and Te Tiriti informed approach are explained with relevance to this research.

Chapter 3 describes a scoping review that was undertaken to explore Māori experiences of physical rehabilitations services in Aotearoa. Fourteen studies from the past 10 years were included in this review. Four themes were generated that describe Māori experiences of rehabilitation. The first theme captures the expectations of receiving culturally unsafe care that become a reality for Māori during rehabilitation. The second theme describes whānau as crucial for navigating the culturally alien world of rehabilitation. The final two themes encompass solutions for the provision of culturally safe rehabilitation through incorporation of Māori ways of doing things. The results of the scoping review informed the qualitative study phase of this research.

Chapter 4 outlines the methodology and methods used for the qualitative study portion of this research. The application of an interpretive description methodology is described. Data collection was completed via exploratory, semi-structured interviews and reflexive thematic analysis was used to generate descriptive themes. Ethical and cultural considerations are discussed.

Chapter 5 presents the findings of the qualitative study. Five themes were generated from the interview data that describe Māori experiences of hand therapy services in Tāmaki Makaurau and encompass solutions proposed by participants to enhance service provision for Māori. The themes were: Building a bridge to hīkoi hand in hand; Keeping negative health experiences at arm’s length; Cultural connections are straight up magic; The hand therapist as a taonga; Hei haumaru kei aku ringa.

Chapter 6 summarises key findings from the qualitative study. Findings are situated within the literature and discussed with relevance to evidence-based practice in hand therapy and physical rehabilitation service provision.

Chapter 7 makes recommendations for the implementation of solutions for hand therapy practice based on the findings from the scoping review and qualitative study. Recommendations include normalising positive health experiences for Māori, solutions for hand therapy clinical environments and treatment, wider organisational and system considerations, and suggested avenues for future research.

Chapter 2 Setting the Scene

2.1 Introduction

This chapter sets the scene for the research. The research context is outlined in relation to historical and contemporary influences on Māori health. Physical rehabilitation and hand therapy in Aotearoa, the clinical settings explored in this research, are described. The philosophical background to the research is explained, including the underpinning Tiriti informed approach.

2.2 Historical context

A sophisticated system of public health existed in Aotearoa prior to the arrival of European settlers (Durie, 1998; Waitangi Tribunal, 2011). The health systems were tailored to Māori, to whenua, and to collective and holistic hauora practices (Graham & Masters-Awatere, 2020). Tohunga carried out rongoā health and healing practices. Colonisation introduced foreign diseases, firearms, and land dispossession, all of which had a detrimental impact on Māori health. The rapidly declining Māori population prompted the need for British intervention in the form of the signing of Te Tiriti in 1840 (Wilson & Haretuku, 2015).

Te Tiriti was an agreement between the English crown and Māori rangatira, signed on the 6th of February 1840. The original text was written in te reo Māori, but English translations of the document were circulated. Te Tiriti was signed by the Crown's representative William Hobson and over 500 rangatira, whereas English translations were signed by approximately 40 rangatira (Came et al., 2023). International law gives precedence to the Māori text under the legal doctrine of 'contra proferentem,' which means if a contract is ambiguous it is interpreted against the party who offered the contract (Came et al., 2021). Thus, when discussing Te Tiriti in this thesis, I refer to the Māori text.

Te Tiriti consists of a preamble, three written articles and one verbal article: kāwanatanga, tino rangatiratanga, ōritetanga, and wairuatanga (Network Waitangi, 2018). The articles of Te Tiriti affirmed Māori self-determination and sovereignty over taonga, including health and health practices. Māori were guaranteed the same rights and privileges as British subjects and were promised equity (Came et al., 2017). Since the signing, the government and health sector have largely overlooked their obligations to uphold the promises of Te Tiriti (Wilson & Haretuku, 2015). The Waitangi Tribunal (2019) found that Māori health inequities can in part be attributed to breaches of Te Tiriti.

The earliest providers of Eurocentric healthcare were missionaries, whose medicine was relatively unsuccessful in the treatment of diseases at that time. Government hospitals were setup in the early 1840s, usually in urban, settler-dominated areas. Physical access to these institutions was challenging for Māori, as most lived rurally until the 1930s (Durie, 1998; Lange, 2018). The increasing population of settlers and assimilation of Māori gave rise to the notion that scientific and spiritual understandings of health could not coexist (Waitangi Tribunal, 2011). Subsequently, health policy and provision were designed from a European perspective alone.

Urbanisation following World War II led to Māori joining the industrial workforce in urban centres, taking up lower paid jobs in society. Together with social marginalisation and disempowerment, urbanisation led to unequal distribution of the social and economic determinants of health such as income, housing, and education. The result for Māori was, and is to this day, higher rates of sickness and morbidity as they receive a lesser proportion of those socio-economic determinants. Thus, Māori have an increased need for health services but have inadequate and unequal access to them (Zambas & Wright, 2016).

Political manoeuvres by successive governments restricted Māori access to their own health practices. New diseases from outside Aotearoa were introduced by settlers. Rongoā Māori was largely ineffective in treating introduced diseases and thus the status of tohunga started to decline. Additionally, The Tohunga Suppression Act 1907 prohibited tohunga from their practices, which were deemed unsafe by the settler population (Wilson & Haretuku, 2015). With tohunga essentially forced underground, Māori reliance on the colonial health system increased. Furthermore, the significant land dispossession and subsequent urbanisation led to separation of Māori from their whenua and access to natural medicines. Separation from each other further limited Māori contact with practicing tohunga and the passing of health knowledge intergenerationally was interrupted. The Tohunga Suppression Act 1907 was not repealed until 1962 and rongoā Māori practices continue to recover today (Waitangi Tribunal, 2011; Wilson & Haretuku, 2015).

Collectively, these actions of colonisation are in direct breach of Te Tiriti. Colonisation has resulted in the creation of socio-economic barriers to health for Māori, limited choice for Māori in the types of service they can access, and dependence on a colonial health system that is founded on institutional racism.

2.3 Māori health experiences

There is extensive evidence showing the impact of differential healthcare experiences on Māori health at all levels of service provision. The effects are clear in the lack of coordinated, acceptable, available, and culturally appropriate services that prioritise the needs of those who need them most (Health Quality & Safety Commission New Zealand, 2019). Māori experience the greatest levels of inequity in health access, health outcomes, health determinants, and quality of healthcare (Harris et al., 2019; Jansen et al., 2008). Māori are more likely than non-Māori to sustain life-changing injuries and are less likely to access rehabilitation services (Accident Compensation Corporation, 2023). Māori experience higher rates of long-term disability and mental health issues following injury compared to non-Māori (Nelson, 2022; Wyeth, 2019). Māori often attempt to self-treat injuries before seeking healthcare or the help of a rehabilitation professional, leading to delayed presentations at acute settings and with more serious symptoms (Jeffreys, 2020; Wren, 2015). Māori are also less likely than non-Māori to be referred for surgical or specialist services (Health Quality & Safety Commission New Zealand, 2019; Zambas & Wright, 2016).

Māori consistently report negative hospital experiences, which in turn impact on future decisions to access healthcare for the whole whānau (Graham & Masters-Awatere, 2020). Cultural factors have been found to significantly impact Māori decisions to seek healthcare (Waitangi Tribunal, 2011). Feelings of cultural alienation are commonplace, leading to Māori not wanting to discuss specific cultural needs with staff and requests for early hospital discharge (Graham & Masters-Awatere, 2020). Māori often describe encounters with staff who display attitudes and behaviours that range from ignorant and uninformed to being blatantly racist (Williams & Cram, 2012).

2.4 Philosophical background

The research undertaken for this thesis was qualitative in nature. Qualitative research seeks to explore the meaning that people attribute to social phenomena and understand the rationale underlying perceptions and behaviour in context (Ancker et al., 2021; Hesse-Biber, 2017). Qualitative health research has gained popularity with more interest in biopsychosocial models of health (Balthazar & Venderly, 2022). Qualitative approaches are increasingly being recognised for their value in contributing evidence and knowledge related to people's experiences of injury, disability, and rehabilitation services (Carpenter & Suto, 2008).

The research described in this thesis drew from the interpretive paradigm. From an ontological perspective, interpretivism posits that there is not one universal reality, but rather that humans actively construct their reality through subjective understandings of their lived experience (Grant & Giddings, 2002). Interpretive epistemology assumes that research knowledge is created through the researcher's interpretation of participants' perceived reality (Carter & Little, 2007).

The critical-radical paradigm also influenced the philosophical basis of this research. As discussed in the previous chapter, the intent of this research was not solely to explore the experiences of Māori patients, but to discover solutions proposed by Māori patients that could enhance their experiences of hand therapy services. Critical research seeks to create social change from knowledge relating to participants' subjective reality (Carpenter & Suto, 2008). Both interpretive and critical paradigms recognise the contextual nature of social meaning, which in the case of Māori health in Aoteroa is deeply embedded in the impacts of colonisation. The critical researcher aims to critique the influence of social constructs on lived experience (Grant & Giddings, 2002). Incorporating the critical paradigm allowed critique of my assumptions about research. This critique included examining western research approaches assuming the right to acquisition and interpretation of knowledge. I also reflected on my beliefs that interpretive research would be inherently culturally sensitive due to its consideration of the participant's context and perspective (Berryman, 2013).

The aim of the research described in this thesis was to elucidate the realities experienced by Māori through their own narratives. These narratives were then interpreted through a critical lens. A set of recommendations for hand therapy clinical practice was developed by applying a critical lens to interpret participant stories. This was achieved by weaving my own understandings of hand therapy practice with the solutions proposed by participants.

2.5 Te Tiriti o Waitangi informed approach

A Tiriti informed approach underpinned this research. This term is not known to have been coined for research elsewhere, however there is literature supporting Te Tiriti as a framework for research that intends to address health inequities (Came et al., 2023; Silcock & Hocking, 2021). The Tiriti informed approach in this research drew on descriptions of research guided by Treaty principles (Hudson & Russell, 2009; Reid et al., 2017). However, the application of Treaty principles has been found to be problematic because these principles are not contained within the text of Te Tiriti (Burns et al., 2024). Thus, the Tiriti informed approach used in this research differs in that it focused on application of the articles of Te Tiriti more than principles. Specifically, this research recognised tino rangatiratanga of tangata whenua and focused directly on Māori rights to equity and protection from the Crown, as stipulated in the preamble, article one – kāwanatanga, and article three - ōritetanga (Came, O'Sullivan, et al., 2020; King et al., 2018).

The preamble of Te Tiriti was an introductory statement that depicted the intent of the document and set the tone for the relationship between the English Crown and Māori. For this research, I identified as Pākehā to centre the relationship documented in Te Tiriti between Māori and Pākehā. Pākehā is a te reo Māori term for European settlers and their descendants. This term is different from Tauiwi or non-Māori, which are less-specific terms most often associated with modern-day immigrants from other countries (Durie, 1998; Opai, 2021). I also identified as tangata Tiriti in recognition of my responsibilities as a Tiriti partner in completing this research. As an Irish immigrant to Aotearoa, I acknowledge that I live and work here under the terms and conditions set out in Te Tiriti. I believe Irish and Māori people share a history, both having lost culture, language, and land through colonisation. However, I am aware that I hold a position of privilege in the context of Aotearoa because I am Pākehā.

Pākehā paralysis is a concept that describes a position leading to Pākehā inaction, avoidance, or apathy in relation to engaging with Māori issues for fear of doing something wrong (Barnes, 2013; Crawford & Langridge, 2022). It was important for me to prepare to be open, humble, honest, and flexible to tackle situations of Pākehā paralysis that would likely occur through the research process (Barnes, 2013; Jones, 2012). To move away from Pākehā paralysis I thought about my role as a researcher and practitioner in influencing positive change in Pākehā spaces relating to Māori health (Crawford & Langridge, 2022). Pākehā must be involved with Māori in bringing about health system change, as the power imbalance is currently in favour of Pākehā (Barnes, 2013; Silcock, 2021). In bringing about this change however, Pākehā must be mindful that research needs to be acceptable, accountable, and relevant to Māori (Came, 2013). Therefore, the Tiriti agreement, its intention to protect Māori wellbeing and tino rangatiratanga were considerations for me at each stage of the research journey.

The Crown's responsibility to uphold Te Tiriti promises and protect Māori rights to health equity has been confirmed by the Waitangi Tribunal (Came, O'Sullivan, et al., 2020). Therefore, a Tiriti informed approach is a rights-based approach. The underlying social justice agenda associated with the critical paradigm lent itself to the rights-based approach of this research. In recognition of Māori rights, this research acknowledged the professional and legal responsibilities that Pākehā members of the health system, as Tiriti partners and Crown representatives, have in uplifting Māori health equity (Cram et al., 2006; Selak et al., 2020). Legally bound by the Healthcare Practitioner Competence Assurance Act 2003, regulatory authorities must set standards of clinical and cultural competence for health professionals in Aotearoa, as stated in Section 118(i). The Occupational Therapy and Physiotherapy Boards of New Zealand describe professional responsibilities specifically relating to cultural competence and safety and working to achieve equitable outcomes for Māori (Occupational Therapy Board of New Zealand, 2022; Physiotherapy Board of New Zealand, 2018). I therefore recognise that as a health professional in Aotearoa I am required to uphold Māori rights and realise health aspirations. As such I chose to take action against health inequities in my sphere of influence in the shape of this research (Crawford, 2016; Ministry Of Health, 2020).

Unfortunately, the Tiriti promises of protection and partnership have not historically been extended to Māori in the field of research. On the contrary, Māori knowledge has been stolen and misrepresented, and research has fallen short on delivery of promised outcomes (Tuhiwai-Smith, 2012). Therefore, it was important for me to question the inherent assumptions of research approaches in the context of cross-cultural research. In recognition of the protection promised to Māori in Te Tiriti, cultural safety of the research was paramount. The relationship intended by Te Tiriti was that of a partnership. Consultation was a necessary step towards partnership in the design of this research. To ensure culturally safe principles were put into research practice, oversight for the cultural safety of this research sat with the primary supervisor, who is Māori of Ngāti Kahungunu descent. Research consultation with Māori is described in more detail in Chapter 4 .

Another aspect of culturally safe cross-cultural research was critically reflecting on the inherent power imbalances that exist between Pākehā researcher and Māori participant. There was a risk, in aiming for social change as part of this research, that I would assume that participants were the problem to be solved and I as the researcher was the one to solve it (Tuhiwai-Smith, 2012). Strategies to negate the risks associated with this power imbalance involved attending to the inherent power dynamic and ensuring reciprocity of the research. Reciprocity in the research relationship was ensured through focusing on solutions for hand therapy services described by Māori (Hudson & Russell, 2009).

This research recognised tino rangatiratanga. This study was limited in its ability to truly enable Māori tino rangatiratanga because it was Pākehā-led research with intent to seek solutions for changes in hand therapy services largely provided by Crown health entities. However, options for self-determination were offered to qualitative study participants throughout the research process within the parameters of the study methods employed. The incorporation of a solution focus to the research facilitated Māori self-determination of solutions they want to see in hand therapy services. I ensured safeguarding of participants stories through consideration of Māori data sovereignty principles. Participants could choose to use a pseudonym for confidentiality, but this was not enforced. Participants could opt to use their own name, and this allowed them to have a sense of ownership over their data. During data collection, I was aware of the privileged position I was in as a researcher in receipt of participant stories. As such I needed to treat interview data as a taonga and not overtly distort, misrepresent, or use deficit-framing during data analysis and presentation of findings (Te Mana Raraunga, 2016; Woller, 2013). When completing cross-cultural research, Kimball and Garrison (1996) encourage hermeneutic listening as a means to be self-aware in the creation of new meanings with the ‘unknown other.’ Hermeneutic listening was employed in this research as part of data collection and analysis to ensure interpretation of data was consistently focused on the end goal of improving equitable outcomes for Māori (Berryman, 2013; Vannini & Gladue, 2008). Data was shared with participants as much as was possible. Participants were offered a summary of results and access to publications arising from the study. I also held a hui with participants during the data analysis phase to discuss research findings and ensure the interpretations and meanings being created were in keeping with Māori perspectives. The participant hui is described in more detail in Chapter 4.

Te Tiriti surrounded this research in a korowai of cultural safety and was used as a guide to navigate the inevitable tensions of being a Pākehā researcher with Māori participants (Sheehy et al., 2024a). In summary, a Tiriti informed approach could be described as the practical application of the articles of Te Tiriti to research. The Tiriti informed approach focused on the mauri of the agreement, namely the relationship Te Tiriti intended between Māori and Pākehā, and the rights Te Tiriti promised to the rangatira who signed it (Came, Warbrick, et al., 2020).

2.6 Summary

The persistent health inequities that Māori endure must be a priority for individual clinicians and the wider health system in recognition of their obligations as Tiriti partners. This chapter outlined the historical determinants and processes of colonisation that have contributed to health service delivery and the status of Māori health in Aotearoa today. This chapter has also explained the philosophical background of the research, namely the underpinning Tiriti informed approach. The next chapter describes a scoping review that was undertaken as the first phase of this research to explore what is currently known about Māori experiences of physical rehabilitation services.

Chapter 3 Scoping Review

3.1 Introduction

This chapter describes a scoping review undertaken to understand what is currently known about Māori experiences of physical rehabilitation services in Aotearoa. Reporting of this scoping review is in the format recommended by the Joanna Briggs Institute (JBI) (Peters et al., 2020). First the rationale and objectives of the review are described, followed by an outline of the methods used for this review. The results of the review are then presented and the implications of this review for clinical practice and the qualitative study phase of this research are discussed.

The scoping review was submitted in manuscript form to the journal, Disability and Rehabilitation, and subsequently published in July 2024 (Sheehy at al., 2024b). The published article can be viewed in Appendix O. This chapter contains an extended version of the results and discussion written in the published article.

3.1.1 Scoping review rationale

In a narrative review exploring Indigenous peoples' need for physical rehabilitation, Lin et al. (2020) concluded that despite Indigenous populations suffering a heavier burden of musculoskeletal conditions and physical pain, there is no associated increase in uptake or access to rehabilitation services. In Aotearoa, Māori are more likely than non-Māori to sustain life-changing injuries and are less likely to access rehabilitation services (Accident Compensation Corporation, 2023). Although injury and disability inequities are well reported, little is known about the experiences of Māori as consumers of physical rehabilitation services. Studies on Māori experiences of healthcare have largely focused on acute hospital and primary care settings, chronic conditions, mental health, and addictions services. These studies highlight inequities in access to services and health outcomes and institutional racism (Health Quality & Safety Commission New Zealand, 2019; Palmer et al., 2019).

Rehabilitation has been recognised as an area with potential to effectively address Māori health needs because it shares concepts with hauora Māori practices. Both approaches to health recognise environmental and contextual factors, incorporate a holistic approach, and implement client- and family-centred care (Harwood, 2010;

Hopkirk & Wilson, 2014). It is therefore essential to gain an understanding of Māori experiences of physical rehabilitation to inform equitable and culturally safe service provision.

A preliminary search showed a paucity of literature pertaining to Indigenous peoples' experiences specific to hand therapy, both in Aotearoa and worldwide. Therefore, a broader review of physical rehabilitation was required. As the topic of Māori experiences of physical rehabilitation services is not known to have been systematically reviewed, a scoping review method was selected to provide an overview of literature available (Munn et al., 2018). Scoping reviews allow a broader range of literature to be included rather than the tight parameters required of a systematic review (Jesus et al., 2022; Peters et al., 2020). It was important to ensure the search method extended beyond academic databases to other sources of information that could address the objectives of this review because published Māori research is a developing area (Barrett et al., 2023; Peters et al., 2020). In keeping with the objectives of this research, completing a scoping review grounded the research within existing knowledge and collated findings that may be applied to clinical practice. Scoping reviews can also reveal insights to the reviewer that assist in the creation of new lines of inquiry, in this case the qualitative study phase of this research to follow (Thorne, 2008; Thorne, 2016).

3.1.2 Objectives

This scoping review aimed to map the available qualitative evidence exploring Māori experiences of physical rehabilitation services in Aotearoa. The review research question was what are Māori patient experiences of physical rehabilitation services in Aotearoa?

3.2 Methods

This scoping review was guided by the JBI method (Peters et al., 2020). The JBI method offers guidance for creation of a scoping review protocol and ensures congruency through each step of the review (Lockwood et al., 2019). The Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) checklist was used to inform protocol development and ensure comprehensive reporting of the scoping review (Peters et al., 2020; Tricco et al., 2018).

3.2.1 Eligibility criteria

The JBI method uses a population, concept, context (PCC) framework for the formulation of review questions and a search strategy. The eligibility criteria were chosen to include any subjective descriptions given by Māori of their encounters with physical rehabilitation services in Aotearoa. Studies were limited to those published in English in the last 10 years, to ensure the evidence reflected the most recent health system configuration. The WHO definition of rehabilitation was used for this review: rehabilitation is "a set of interventions designed to optimise functioning and reduce disability in individuals with health conditions in interaction with their environment" (World Health Organisation, 2023). Table 3.1 illustrates the eligibility criteria for the scoping review.

Table 3.1

Eligibility Criteria

	Inclusion Criteria	Exclusion Criteria
Population	New Zealand Māori Patient/service user perspective No age restriction	Studies that do not describe Māori perspectives in isolation from other ethnic groups Staff, student, organisational perspective
Concept	Descriptions of experience(s) Qualitative studies and mixed methods studies with a qualitative component	
Context	Physical rehabilitation as defined by the WHO Physical injury, illness, or disability Interventions commonly undertaken by allied health professionals as part of physical rehabilitation Studies completed in Aotearoa Studies published in English between 2013 and 2023	Mental health, addictions or criminal rehabilitation

3.2.2 Search strategy

The JBI method uses a three-step iterative search strategy in conjunction with the PCC framework to determine eligibility criteria (Peters et al., 2020). The assistance of an experienced AUT librarian was sought in the development of the search strategy. The first step was a preliminary search in the Scopus and AMED Allied & Complementary Medicine databases, using the PCC as search terms. The preliminary search was undertaken to refine the eligibility criteria and commonly seen words informed the selection of final search terms. The preliminary search determined there would be sufficient literature for a scoping review. The second step was completion of a literature search of databases and grey literature sites using the final search terms from step one. The database and grey literature searches took place in February 2023 and again in January 2024. The following databases were searched: AMED Allied & Complementary Medicine, EBSCO Health Databases (CINAHL Complete and MEDLINE), OT Seeker, Ovid Emcare, PEDro, Scopus. A search for unpublished and grey literature was conducted in Google Scholar, ProQuest, university research repositories, government health, allied health, iwi, and Māori research websites. See Appendix C for full list of grey literature sites searched. The search strategy was adapted for each database and grey literature source. See Figure 3.1 for an example of the full search strategy used for the Scopus database. The third step was a search of the reference lists from the studies that were selected for inclusion in the full-text review.

Figure 3.1

Scopus Full Search Strategy

Search	Query	Records Retrieved
S1	Maori OR Māori OR Maaori AND experience* AND rehabilitation	20
S2	Tangata whenua OR iwi OR hapu AND experience* AND rehabilitation	0
S3	Maori OR Māori OR Maaori AND experience* AND occupational therap*	7
S4	Maori OR Māori OR Maaori AND experience* AND physiotherap*	5
S5	Maori OR Māori OR Maaori AND experience* AND physical therap*	7
S6	Maori OR Māori OR Maaori AND experience*AND hand therap*	2
S7	Maori OR Māori OR Maaori AND experience*AND disability OR injury	86
S8	Maori OR Māori OR Maaori AND experience*AND (patient* OR stakeholder OR service user OR client)	40
S9	Maori OR Māori OR Maaori AND experience*AND Hauora OR tinana	30
S10	Aotearoa OR New Zealand AND experience* AND rehabilitation	205
S11	Aotearoa OR New Zealand AND patient experience* AND rehabilitation	77
S12	(Maori OR Māori OR Maaori) AND (perception* OR perspective* OR opinion* OR feeling* OR view* OR satisf* OR attitude*) AND rehabilitation	22
S13	(Maori OR Māori OR Maaori) AND (perception* OR perspective* OR opinion* OR feeling* OR view* OR satisf* OR attitude*) AND occupational therap*	5
S14	(Maori OR Māori OR Maaori) AND (perception* OR perspective* OR opinion* OR feeling* OR view* OR satisf* OR attitude*) AND physiotherap*	4
S15	(Maori OR Māori OR Maaori) AND (perception* OR perspective* OR opinion* OR feeling* OR view* OR satisf* OR attitude*) AND physical therap*	9
S16	(Maori OR Māori OR Maaori) AND (perception* OR perspective* OR opinion* OR feeling* OR view* OR satisf* OR attitude*) AND hand therap*	1
S17	(Maori OR Māori OR Maaori) AND (perception* OR perspective* OR opinion* OR feeling* OR view* OR satisf* OR attitude*) AND disability OR injury	84
S18	(Maori OR Māori OR Maaori) AND (subjective OR qualitative OR participation OR engage*) AND rehabilitation	21
S19	(Maori OR Māori OR Maaori) AND (subjective OR qualitative OR participation OR engage*) AND occupational therap* OR hand therap* OR physiotherapy* OR physical therap*	10
S20	(Maori OR Māori OR Maaori) AND (subjective OR qualitative OR participation OR engage*) AND disability OR injury	65

Note. This figure demonstrates the full search strategy used for Scopus including search terms. This search was conducted on 08/02/2023.

3.2.3 Selection of sources of evidence

Published studies were initially exported to the referencing software Endnote X9 (Clarivate, 2023). On Endnote duplicate titles were removed and study titles were screened for eligibility. Published studies that remained were then uploaded to Covidence - a web-based collaboration software platform that streamlines the production of systematic and other literature reviews - and checked again for duplication (Veritas Health Innovation, 2023). I then conducted an abstract screen. An additional step at this stage of screening involved a search for the word Māori or ethnicity in the text body. A full text review of published studies that remained on Covidence after the abstract screen was completed by my primary supervisor (DW) and I. Conflicts on study eligibility were resolved through consensus or consultation with my secondary supervisor (JC). I separately examined unpublished articles such as websites, large policy documents, and theses that were unable to be uploaded to Covidence.

3.2.4 Data extraction and analysis

Extraction of findings followed the JBI method and recommendations for thematic synthesis as described by Thomas and Harden (2008). Data relevant to Māori experiences of rehabilitation were extracted verbatim from the studies, for example from participant quotes, study discussions, tables, conclusions, or supplementary materials. Extracted data excerpts were copied to a Microsoft Word table for analysis. Themes were formed using Braun and Clarke's (2022) reflexive thematic analysis method. Reflexive thematic analysis enabled in-depth theme development, and this data was then used to inform the interview guide for the qualitative study phase of this research (Peters et al., 2020). Additionally, reflexive thematic analysis has been used across a broad range of sources, including grey literature, and has been found to work well alongside Thomas and Harden's (2008) thematic synthesis (Braun & Clarke, 2021; Rosin et al., 2023).

Data familiarisation first occurred through full text review and multiple readings of the literature. Coding was then conducted for all the extracted data. Codes were developed inductively from within the data set; no a priori framework was used. At least one code was given to each data excerpt. Codes were then transferred from the Microsoft Word table to 'sticky notes' on a Miro online visual whiteboard, for grouping and comparison of codes, and formulation of themes (Miro, 2022). The Miro board 'sticky notes' were labelled with the literature reference to easily find the source of each code. See Appendix D for sample images of the Miro Board. Ongoing analysis on the Miro board resulted in movement of codes between prototype themes and creation of new codes. Generation of codes and themes involved an iterative process with examples shared in supervision meetings. Codes and themes were then revised based on group discussion.

Points of analysis requiring a Māori lens were clarified with my primary supervisor (DW). Naming of final themes occurred within the supervisory team. Themes continued to be honed during the write up process. Quotes were used to support the narrative of each scoping review theme.

3.3 Results

3.3.1 Selection of sources of evidence

The database and grey literature searches yielded 7072 records in total. After removal of duplicates in both Endnote and Covidence, 1545 published studies and 23 grey literature sources remained. On Covidence, published studies underwent screening of their title and abstracts for confirmation of eligibility which resulted in 1503 records being excluded. Full text screening was completed for 42 published studies and 23 grey literature sources. Studies that were excluded at the full text screening stage were those that focused on Māori experiences of living with a condition or diagnosis, position papers, practice guidelines, and studies where Māori experiences were not described in isolation to other participant groups by ethnicity.

Three studies required all three members of the supervision team to complete a full text review. The uncertainty around the inclusion of these studies related to whether the diagnosis of obesity and the intervention of singing in music therapy met the eligibility criteria. It was decided that two studies detailing an intervention for obesity met the criteria because this condition can cause physical impairment, but the music therapy study would be excluded as it did not clearly separate Māori experience from other ethnicities. A total of 11 published studies and three grey literature sources were deemed eligible for inclusion in this review. No additional references were found through back-chaining of reference lists. See Figure 3.2 for PRISMA flow diagram.

3.3.2 Characteristics of sources of evidence

Table 3.2 and Table 3.3 give an overview of the characteristics, purpose, and main findings of the studies from the published and grey literature searches respectively.

3.3.2.1 Study characteristics

A total of 14 studies were included in this review. These were 11 studies from peer-reviewed journals (Bishop et al., 2021; Boland et al., 2020; Bourke et al., 2023; Graham et al., 2022; Harwood et al., 2022; Lambert et al., 2021; Levack et al., 2016; Perry et al., 2015; Wild et al., 2020; Wild et al., 2021; Wilson et al., 2022), two Masters theses (Fernandez, 2020; Silveira, 2022) and one study published by the Health and Quality Safety Commission (Pihema, 2022). Two articles, Wild et al. (2020, 2021) were descriptions of the same study with the findings from the overall cohort and Māori participants published separately. Of the 14 studies, 8 solely explored Māori experiences (Boland et al., 2020; Bourke et al., 2023; Fernandez, 2020; Lambert et al., 2021; Levack et al., 2016; Pihema, 2022; Wild et al., 2021; Wilson et al., 2022). No study explicitly compared Māori to non-Māori experiences. The methodology underpinning the included studies varied. Kaupapa Māori research was the most common and was often coupled with an additional methodology, for example narrative inquiry (Silveira, 2022) or abbreviated grounded theory (Levack et al., 2016). Two articles described results from a qualitative component of Derrett et al.'s (2009) longitudinal cohort Prospective Outcomes of Injury Study (Bourke et al., 2023; Lambert et al., 2021). Most of the studies used interviews for data collection. The most frequently described method for data analysis was thematic analysis, although it was not always clear from the reports which type of thematic analysis was used.

3.3.2.2 Population characteristics

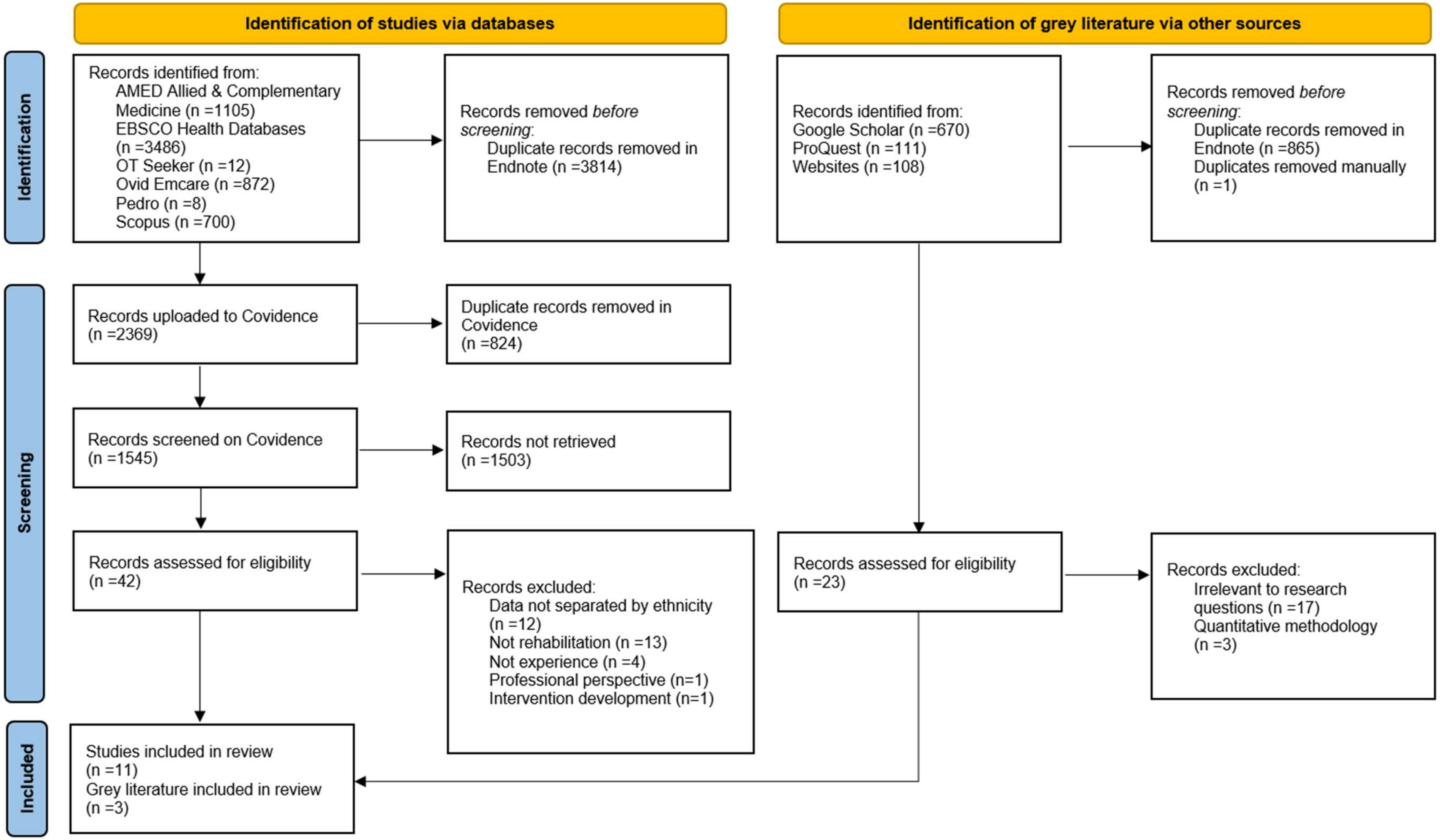
This review includes the experiences of a total of 199 Māori, both individuals and whānau. Most of the participants were adults with an age range of 19-94. Pihema's (2022) trauma study included individuals aged 16 and over. Two studies exploring whānau experiences of engaging in a healthy lifestyle programme included five youth over the age of 11 in their interviews (Wild et al., 2020, 2021). Fernandez's (2020) study included two grandchildren, one of whom was reported to be an adolescent. The broad inclusion criteria resulted in a wide range of participant diagnoses. Participant conditions varied with studies exploring the experiences of individuals with a diagnosis of stroke, traumatic brain injury, obesity, chronic obstructive pulmonary disorder (COPD), and non-specific trauma.

3.3.2.3 Rehabilitation context

There was substantial variation in the rehabilitation contexts described in the studies. Rehabilitation programmes included acute hospital-based rehabilitation, post-acute outpatient and community rehabilitation, neurorehabilitation, and pulmonary rehabilitation. Rehabilitation was mostly facilitated by government run organisations. One study compared the experience of a hospital-based and a marae-based outpatient programme (Levack et al., 2016) The studies also differed in the parts of the rehabilitation process that were the focus of exploration. These areas were not always the experience of a particular intervention but rather a component of the rehabilitation journey. This included personal factors, such as therapeutic relationships (Bishop et al., 2021; Wilson et al., 2022) as well as wider organisational factors and systemic barriers, such as access (Bourke et al., 2023; Harwood et al., 2022; Perry et al., 2015).

Figure 3.2

PRISMA Flow Diagram



Note. PRISMA flow diagram demonstrating selection process for studies included in this scoping review. Adapted from "*The PRISMA 2020 statement: an updated guideline for reporting systematic reviews," by* M.J. Page, J.E. McKenzie, P.M. Bossuyt, I. Boutron, T.C. Hoffmann, C.D. Mulrow, L. Shamseer, J.M. Telzlaff, E.A. Akl, S.E. Brennan, R. Chou, J. Glanville, J.M. Grimshaw, A. Hróbjartsson, M.M. Lalu, T. Li, E.W. Loder, E. Mayo-Wilson, S. McDonald, . . . D. Moher, 2021, BMJ, 372(71), p. 5, https://doi.org/10.1136/bmj.n71. CC BY 4.0

Table 3.2

Summary of Study Characteristics and Main Findings Sourced from Peer-Reviewed Journals

Citation	Study Purpose	Research Design	Data Collection Method	Data Analysis Method	Population	Context	Main Findings
Bishop et al. (2021)	To explore the therapeutic alliance between patients and clinicians during stroke rehabilitation	Interpretive description	Interviews	Conventional content analysis	Individuals who had a stroke Age range 29-76 Māori n=3	Regional inpatient rehabilitation unit	• Reciprocal sharing of oneself and the involvement of whānau can improve quality of engagement and outcomes • Māori values being compromised and clinicians making incorrect assumptions led to participants wanting to disengage from rehabilitation
Boland et al. (2020)	To explore experiences of using rehabilitation equipment by Māori post stroke	Mixed methods	Interviews	Framework analysis using Te Whare Tapa Whā	Individuals who had a stroke Age range 49-58 Māori n=4	Participants had received rehabilitation post stroke at a publicly funded hospital	• Participants found equipment facilitated independence and helped to avoid whakamā, particularly when using it to re-engage in community life, a meaningful role, or activity • A relationship with a therapist, established through good communication skills and a positive attitude, helped with participation, engagement, trust, and confidence
Bourke et al. (2023)	To understand Māori experiences of accessing injury-related healthcare services long-term	Longitudinal mixed methods Kaupapa Māori	Interviews	Thematic analysis	Individuals who had sustained an injury Age range 19-63 Māori n= 61	A cohort recruited from the Prospective Outcomes of Injury study (Derrett et al., 2009)	• Practical barriers that participants felt limited their ability to access healthcare and rehabilitation services included time constraints, juggling competing responsibilities, transport issues, and inflexibility of services • Negative experiences with services left participants feeling disempowered. This feeling was exacerbated by the exhaustion of having to initiate, self-advocate, and coordinate their care without support

Graham et al. (2022)	To examine the design requirements of a telehealth wheelchair assessment service	Mixed methods	Interviews and focus groups	Inductive thematic analysis and Māori-centred analysis	Individuals with neuro-motor conditions who were wheelchair users Age range 36-55 Māori n=3	Wheelchair assessment service	• Participants felt culturally unsafe when clinicians omitted tikanga during home visits • Participants described the challenges they faced associated with disadvantage and marginalisation of their ethnicity coupled with their disability • Tele-wheelchair assessment was suggested as a way to improve equitable and cultural access for Māori but would require substantial investment
Harwood et al. (2022)	To explore barriers to optimal stroke services for people with stroke and their whānau	Qualitative	Focus groups	Thematic analysis	Individuals who had a stroke and their whānau Age range 32-94 Māori n=9	Acute, rehabilitation and post-rehabilitation services	• Participants described a lack of Māori staff which was surprising to them given Māori have a high incidence of stroke • Participants had to access hauora Māori services outside the stroke service
Lambert et al. (2021)	To investigate the rehabilitation experiences of Māori who were reporting disability 24 months after an injury resulting in hospitalisation	Longitudinal mixed methods Kaupapa Māori	Interviews	Interpretive phenomenology analysis	Individuals who had sustained an injury requiring hospitalisation Age range 37-71 Māori n=12	A cohort recruited from the Prospective Outcomes of Injury study (Derrett et al., 2009)	• The injury impacted participants in different ways including daily life, relationships, whānau roles, employment, mental and emotional wellbeing • Some participants described coping mechanisms that helped them including whānau support, accessing health professionals when needed, and accepting change
Levack et al. (2016)	To examine the factors that influence the uptake of pulmonary rehabilitation by Māori	Kaupapa Māori Abbreviated grounded theory	Interviews and focus groups	Constant comparative analysis	Individuals with COPD Age range 40-79 Māori n=15	Outpatient rehabilitation programme (hospital- or marae-based)	• Past negative experiences influenced the decision to attend rehabilitation • The marae-based programme offered opportunities for culturally meaningful connection which facilitated wellbeing and fostered belief in the efficacy of rehabilitation • Participants placed great value on time spent engaging in whakawhanaungatanga, particularly with staff who were compassionate, caring, and encouraging

Perry et al. (2015)	To explore barriers and facilitators to accessing an outpatient musculoskeletal physiotherapy service	Qualitative	Interviews	General inductive analysis	Individuals with musculoskeletal conditions Age range 22-67 Māori n=7	Outpatient physiotherapy (hospital or health centre)	• This study found a lack of awareness among participants of the processes relating to attending physiotherapy or the role of a physiotherapist. Participants tended to put off going to see a physiotherapist until it was absolutely necessary • This study did not find any strong feelings of discrimination or stigma by participants
Wild et al. (2021)	To explore the experiences of whānau Māori of engaging in a healthy lifestyle programme for children and adolescents	Kaupapa Māori-informed qualitative	Interviews	Thematic analysis	Whānau and children with weight issues Age range not reported, children included for interviews were ≥11 years old Māori n=32	Health centre-based programme	• Whānau Māori experiences were found to be related to instances of racism, both past and present, and the ways in which whānau responded to racism • Whānau Māori reported when they received care that was respectful, compassionate, and kind this helped to overcome past experiences of racism
Wild et al. (2020)	To understand the barriers and facilitators to engagement in healthy lifestyle programme for children and adolescents	Kaupapa Māori-informed qualitative	Interviews	Thematic analysis	Whānau and children with weight issues Age range not reported, children included for interviews were ≥11 years old Māori n=32	Health centre-based programme	• Whānau Māori experiences were found to be related to racism. Past negative experiences could be mitigated by exposure to positive care • Some Māori perceived a genetic propensity to being overweight due to ethnicity. Whānau responded to this perception either by accepting it and not engaging in the programme, or engaging to counteract perceptions related to genetics
Wilson et al. (2022)	To develop understandings of the experiences and what matters most to Māori for therapeutic connection during neurorehabilitation	Bicultural approach Kaupapa Māori	Wānanga/ Focus groups	Māori research methods of analysis	Individuals with neurological conditions and their whānau Age range 19-70 Māori n=16	Neuro rehabilitation	• Participants identified that the wairua and hononga of a connection underpinned encounters with health professionals. These concepts were characterised by building trust and reciprocity • Participants wanted whānau to be acknowledged as part of the rehabilitation process

Table 3.3

Summary of Study Characteristics and Main Findings Sourced from Grey Literature

Citation	Study Purpose	Research Design	Data Collection Method	Data Analysis Method	Population	Context	Main Findings
Fernandez (2020)	To explore the experience of whānau as caregivers for an individual who had a stroke	Kaupapa Māori Interpretive description	Interviews	Thematic analysis	Whānau of individuals who had a stroke Age range 50-70, 2 grandchildren included age not reported Māori n=7 (6 whānau and 1 individual who had a stroke)	Post-stroke rehabilitation and support services	• Uptake of rehabilitation services by whānau was based on perceived usefulness and cultural appropriateness • Whānau described the reality and challenges associated with providing hands-on caregiver support • Culturally responsive services were described as those that acknowledged culture, tikanga, and te reo Māori
Silveira (2022)	To explore the experience of whānau as caregivers for an individual who had a traumatic brain injury	Kaupapa Māori Narrative inquiry	Interviews	Thematic analysis	Whānau of individuals who had a traumatic brain injury Age range 35-65 Māori n=2 (not all whānau members interviewed were Māori, all those who had a traumatic brain injury were Māori)	Acute, post-acute rehabilitation, and community services in the Waikato region	• Whānau struggled with trauma, emotional, and psychological distress • Whānau acted as navigators of a health system that was complex, inflexible, and limited in its cultural responsiveness to Māori • The whānau unit both provided and required healing
Pihema (2022)	To explore whānau Māori experiences of major trauma care and rehabilitation from injury to discharge home	Kaupapa Māori	Interviews	Not reported, supplementary methodology report could not be accessed	Individuals who had a major trauma and their whānau Age range 16-65+ Māori n=28 (21 individuals and 7 whānau)	Recruitment from the National Trauma Registry	• Fostering relationships and supporting whānau; communicating clearly; and a holistic approach contributed to a positive experience. When these considerations were absent whānau felt isolated, un-informed, and undervalued • Whānau acted as informal caregivers, providing additional cultural support and care in a holistic way

3.3.3 Thematic analysis and synthesis

Four themes were generated to describe the experiences of Māori when engaging with rehabilitation services: Māori expectations of culturally unsafe healthcare become a reality during rehabilitation; Whānau are crucial for navigating cultural collisions during the rehabilitation journey; Rehabilitation is made culturally safe by embracing Te Ao Māori me ōna tikanga; Rehabilitation is made culturally safe through mana-enhancing services.

3.3.3.1 Theme 1: Māori expectations of culturally unsafe healthcare become a reality during rehabilitation

This theme discusses the preconceived ideas that influenced the expectations of Māori when entering the rehabilitation journey. Distrust was described towards the health system and other Crown entities in Aotearoa. Past negative experiences with any government run organisation, such as the justice system, gave rise to the belief that an encounter with any other service would also be negative. Before starting rehabilitation, participants had a sense of disconnection from the kaupapa, as well as the people they were likely to interact with. Māori expected to feel isolated among Pākehā and for there to be a limited understanding of Māori concepts in rehabilitation services.

> *I don't trust the healthcare system. Definitely don't. I record everything. I investigate everything, make sure that I'm happy with everything…*
>
> (Wild et al., 2021, p. 673, Table 3)

Many participants' expectations of alienation and disconnection were confirmed by the negative experiences they had during rehabilitation. Engagement in rehabilitation for Māori was constrained by Te Ao Pākehā - referring to the Eurocentric configuration of health services in Aotearoa. Participants found the services they received to be individualised and disease-driven with little flexibility or consideration for whānau wellbeing. Participants noticed a lack of Māori staff and encountered under-resourced hauora Māori services, if these were offered at all. Some resorted to sourcing cultural support elsewhere as it was not directly available through rehabilitation services. Many described difficulties connecting with rehabilitation in any culturally meaningful way, resulting in some cases, to withdrawal from care.

> *…the services that he got were very westernised, there was a touch of Māori tradition but not a lot…his mum she very much does immerse herself in Māori culture…I think that she actually needed that [Māori cultural] support and I think that would have helped her connect better with the services, because she stayed quite detached… If there was a bit more of a Māori element it would have created more of a connection with her*
>
> (Silveira, 2022, p. 54 Chapter 5)

Māori described culturally incompetent care from rehabilitation professionals and talked about staff making incorrect assumptions, being made to feel unworthy of treatment, and being on the receiving end of discrimination and racism. Several participants talked about a clash in communication style between themselves and staff. Māori described rehabilitation professionals' communication style as brief, cold, dismissive, and sterile. This way of communicating contradicted with Māori seeking opportunities for whakawhanaungatanga. The following quote is from a participant who attended a marae-based rehabilitation programme, discussing the value placed on time spent on Māori ways of doing things.

> *The tikanga aspect of it - we talk about our whakapapa first, that's all part of whanaungatanga, and our stories are very important...when you come to the culture side of thing [sic], you break that down even more to simple waiata, whakapapa, and te reo Māori, all that is our wellbeing. It's not just the having to learn what the Pākehā tell us to do*
>
> (Levack et al., 2016, p. 495)

A final aspect of culturally unsafe care described by participants was clinician ignorance of the structural barriers that Māori faced and the resulting impact on engagement with rehabilitation. Participants described the cumulative disadvantages that they experienced as a result of being Māori and having a physical disability. Cumulative disadvantages included intensification of negative societal perceptions and facing increased barriers to rehabilitation access. A lack of transport was cited as a major barrier to accessing rehabilitation services for Māori, with one study finding the provision of transport increased attendance. The lack of clinician understanding of wider systemic issues that Māori contend with was demonstrated in the following quote from a parent of one of the children engaging in a healthy lifestyle intervention for obesity:

> *And that's what I said at the family group conference – 'I disagree with that' [comment made by a staff member in relation to child's eating habits] because they were being fed. It might not be healthy to some people. But at least they were eating*
>
> (Wild et al., 2021, p. 673, 3. Table 2)

3.3.3.2 Theme 2: Whānau are crucial for navigating cultural collisions during the rehabilitation journey

This theme describes the essential roles that whānau hold during rehabilitation. Fulfilling these roles did not come without challenges for whānau. Whānau fought to ensure the best care for their loved one in rehabilitation settings that felt individualistic and medicalised. There was a sense that the time whānau had available to support their loved one, which was already limited due to access issues and having multiple responsibilities, was further reduced because of the additional roles that whānau had to fulfil. At a time of high stress and vulnerability, whānau felt the additional pressure of having to help their loved one navigate a Te Ao Pākehā-driven system that clashed with a Te Ao Māori view of health and wellbeing.

Whānau regularly acted as informal caregivers in the rehabilitation setting. Assistance from wider whānau enabled those in the primary caregiver role to carry out their duties. Whānau provided support in a holistic way. The need for psychological, spiritual, and cultural support from whānau was emphasised frequently in the data. Participants felt issues such as cultural isolation, mental health, and trauma were often inadequately addressed, therefore prolonging the healing process. In the absence of holistic support provision by rehabilitation professionals, whānau stepped in to fulfil this need, not only for the individual undergoing rehabilitation but for the whānau collective. The additional support from whānau served to keep their loved one engaged and motivated in rehabilitation, as depicted in the following quote.

> *Strong relationships between the team and family had potential to improve a client's engagement in their relationship with staff through delivery of consistent messages: 'Whānau also supported me to stay...so it was everybody talking to me really...so I wouldn't rebuff against it, you know, keeping that engagement alive and trusting'*
>
> (Bishop et al., 2021, p. 1078)

Whānau worked to uphold tikanga during rehabilitation in the way they provided manaaki and awhi to their loved one. Where a lack of cultural awareness was displayed by healthcare professionals, for example during equipment provision and discharge planning, whānau promoted Māori perspectives and ways of doing things in support of their loved one.

> *…the whānau made the decision not to use adaptive equipment. Instead, they provided additional support and stayed overnight to assist their Mum to the wharepaku, rather than have a commode in her bedroom*
>
> (Boland et al., 2020, p. 23)

Whānau were often required to advocate for their loved one during rehabilitation. Whānau wanted to ensure access to appropriate services and care. Participants reported issues in dealing with processes that were messy, not intuitive, and involved dealing with multiple service providers simultaneously who were giving contradictory information. Whānau with a better understanding of how the health system operated fought for services that should already have been in place.

> *It was my sister that was coming in and giving us a little bit of info here and there. She had dealt with social workers and stuff like that…hence she was the one telling us what, how, and whom to ask for help*
>
> (Fernandez, 2020, p. 96)

Several of the studies included in the review discussed the cultural collisions between Te Ao Pākehā client-centred care approach and Te Ao Māori collective approach. Whānau recognised the importance of being involved from the early stages of rehabilitation because once their loved one was discharged, they would be responsible for ongoing care. Often participants described instances where whānau were left out, despite repeatedly asking for them to be involved.

The extra roles that whānau had in advocating for their loved one of providing additional care and holistic support appeared to go unrecognised. Because the health system did not prioritise collective wellbeing of the whānau their needs went unaddressed, and it tended to go unnoticed that the whānau group also required healing.

> *One wahine referred to a healthcare poster with the slogan 'No decision about me without me' to advocate to her care team that her and her husband wanted to be included in the discussions. 'All the way through, any issue we've had has always been lack of consultation. So that we can be part of it. That's all we're asking. We'll be there any time they want it but no, they had it somewhere else, and decisions made. No decisions about me without me. I asked for the hui to be around my bed with my husband present, but it didn't happen*
>
> (Pihema, 2022, p. 17)

3.3.3.3 Theme 3: Rehabilitation is made culturally safe by embracing Te Ao Māori me ōna tikanga

This theme encompasses solutions for cultural safety found in the data related to incorporating and enacting Māori ways of doing things during rehabilitation. This theme illustrates that genuine engagement and validation of Te Ao Māori me ōna tikanga was crucial for the cultural safety of services to be enhanced. Tikanga and mātauranga Māori involved multiple interconnecting concepts when applied in the rehabilitation space. These concepts included manaakitanga - providing care and support, whakawhanaungatanga and hononga - creating bonds and establishing connection, kotahitanga – working together in unity, wairuatanga and tikanga - incorporating processes that hold cultural and spiritual meaning. The importance of tikanga was consistently emphasised by participants. Tikanga were a source of recovery and when incorporated into the rehabilitation process there was high praise from participants.

> *He wanted to be proud of his learning, of his tikanga, to do his pepeha, karakia, and his mihi…cause all these little components get overlooked by non-Māori, because they're [viewed as] insignificant. But actually, in the Māori world… they're extremely significant*
>
> (Wilson et al., 2022, p. 16)

Participants highlighted the importance of improving access to and resources for hauora Māori services. Hauora services were recognised for incorporating rongoā Māori and te taiao to achieve wellbeing during rehabilitation.

> *I went to Māori healing, Māori rongoā, and karakia. I believed they were all those things that helped me, because there was nothing else*
>
> (Harwood, 2022, p.89)

Increasing the Māori health workforce was another suggestion for improving the cultural safety of rehabilitation. Māori healthcare professionals had a positive impact during rehabilitation. Participants appreciated the encouragement, effort, compassion, and understanding displayed by Māori healthcare professionals. Participants reported that the approach and cultural familiarity of Māori staff put them at ease during rehabilitation and increased their feelings of connection.

> *All the Pākehā drugs…the antibiotics, the prednisone - they were all messing with my weight, messing with my head, just put me in a dark place. And I didn't want to get out of bed. Didn't want to exercise. At that stage I [was] ready to give up. And then God sent me [the marae staff]. And it's those people that have got me to where I am now*
>
> (Levack et al. 2016, p.496)

The most strongly promoted solution relating to Te Ao Māori me ōna tikanga, by both Māori participants and the authors of the included studies, was the creation of culturally meaningful connections. Participants sought opportunities for whakawhanaungatanga during rehabilitation and placed value on time spent on the development of connections with staff and services. Whakawhanaungatanga is underpinned by wairua, a concept that was noted to be very difficult to articulate in English.

> *It's like that genuine…it's a spirit thing…you can feel the connection, you can 'feel' them…and that can happen in a heartbeat…and that's any culture…everyone can actually touch in a heartbeat. It's just cultivating that I suppose*
>
> (Wilson et al., 2022, p.15)

Culturally meaningful connections supported the healing process for participants and facilitated increased participation and engagement in rehabilitation. When a positive connection was formed between Māori and staff it led to a belief in the efficacy of rehabilitation and instilled confidence in participants for the rehabilitation journey ahead. Participants felt comfortable and more relaxed with clinicians once a connection was established. Meaningful connections also helped to ease the impact of past negative experiences and helped to overcome any negative preconceptions about rehabilitation and the health system. Culturally meaningful connections were not only seen as important between staff and participants but with other Māori in group settings and with the clinical environment. Time spent creating connections also served a purpose in linking participants with other available health and social services outside the rehabilitation setting.

> *It's in the kōrero we share, you give a bit of yourself, somebody gives a bit of themselves, you know? And I think that's the gauge to the relationship and the rapport, and I think it's very, very special in the healing*
>
> (Bishop et al., 2021, p. 1077)

3.3.3.4 Theme 4: Rehabilitation is made culturally safe through mana-enhancing services

Themes 3 and 4 are inextricably linked. Theme 3 focuses on embracing Te Ao Māori me ōna tikanga while theme 4 illustrates solutions from the included studies with a focus on mana-enhancing services. Clinicians and services could not embrace Te Ao Māori me ōna tikanga without working in mana-enhancing ways and vice versa. Services that enhanced mana were described by participants as those that were empowering, collaborative, and whānau-centred. Participants requested that clinicians work as one with their whānau so that they would be included and recognised as integral members of the rehabilitation team.

> *Recognise whānau as a resource for recovery…to show that they're actually healing faster, [with] us as a whānau being here. We're not getting in the way, we're not a hindrance, we're not here to be a burden…we're here 'cause it supports them*
>
> (Wilson et al., 2022, p. 15)

A collaborative communication style was described as one that was respectful and open. Whakawhiti kōrero was promoted, where there was a two-way exchange of information and time was taken to discuss matters of importance in a reciprocal manner. Participants valued autonomy and a sense of control during rehabilitation. Whānau inclusion was strongly recommended at all stages of the rehabilitation journey, with appointed whānau decision makers being identified and consistent communication from staff. Several studies talked about whānau both providing and requiring healing. The wellbeing of the whānau unit needed to be considered, as there was a wider impact beyond the needs of the individual undergoing rehabilitation.

> *It [the injury] affected everyone I think, you know, mentally I suppose…and physically seeing me unable to do a few things*
>
> (Lambert et al., 2021, p. 2426)

Working collaboratively was advised throughout the studies so that rehabilitation could be made relevant for Māori. During initial assessments and whakawhanaungatanga, seeking information relating to meaningful daily activities, valued roles within the whānau, and important environmental contexts served to connect participants with their rehabilitation. By working in this collaborative, contextualised way participants felt that the barriers they faced, such as practical access issues, could be addressed. It was recommended that clinicians actively seek information from Māori about the barriers they face as they are less likely to offer it spontaneously due to whakamā or not wanting to be a nuisance. In discussing the cons of telehealth wheelchair assessment, one participant remarked on the need for clinicians to meet Māori kanohi-ki-te-kanohi, so that whakawhanaungatanga could occur and a mutual understanding of key issues could be established.

> *I actually want an occupational therapist to actually come and see what I meant by my personal difficulties of getting around...then you have [got] someone that you can deal with, and they know exactly what your mobility issues are like*
>
> (Graham et al., 2022, p. 286)

One example of the importance of cultural context was given by a participant who wanted to uphold her mana by choosing to mobilise on to the marae with a walking frame rather than using a wheelchair (Boland et al., 2020). This example illustrated the need for rehabilitation professionals to be aware of the role of the wider whānau community when working towards goals with Māori. Incorporating valued activities as part of therapy and to achieve a goal was important for participants. Participation in therapy was enhanced by engaging simultaneously in valued activities, creating a more relaxed and relevant interaction. Rehabilitation was enhanced when it took place in meaningful contexts, which for many was accessing the outdoors. Māori valued the healing nature of te taiao for overall wellbeing. One study participant discussed the positive impact on psychological and emotional wellbeing of being able to mobilise in her garden in a powered wheelchair following a stroke.

> *Because you just go outside, and it just makes you feel better to be doing stuff out there. I mean it would be pretty awful if you were limited to being inside, it would be well, it just would drive you crazy*
>
> (Boland et al., 2020, p. 22)

The included studies suggested ways in which clinicians could be culturally safe to provide mana-enhancing services. Rehabilitation professionals were encouraged to be self-aware and self-reflective, particularly in relation to culture and biases they may have. Culturally safe clinicians were described as those who were aware of the power relationship that inherently existed between themselves and Māori patients. Culturally safe clinicians consciously enacted a collaborative, whānau-centred approach. Culturally safe clinicians also demonstrated cultural competence and actively incorporated and validated Te Ao Māori me ōna tikanga, as discussed in the previous theme. Several of the studies discussed clinicians' tendency to assume that health systems and the services they provide are culturally neutral. As part of culturally safe practice, it was advised that clinicians recognise the historical impact of colonisation on the set up of the health system in Aotearoa and the instilled institutional racism that accompanies this.

> *It meant that they were listening. That's that connection. It wasn't just getting pulled out of the sky and saying, 'this is the best for you because this is what's happened to you'. No way. When you're included in the solution and are able to participate in the solution, I think that's a great thing*
>
> (Bishop et al., 2021, p. 1078)

3.4 Discussion

This scoping review was conducted to explore Māori experiences of physical rehabilitation in Aotearoa. The findings of this review provide a thematic synthesis of the experiences described by Māori during their physical rehabilitation and proposes solutions that can assist in enhancing the cultural safety of rehabilitation for Māori. The results found that Māori expect to encounter and subsequently experience rehabilitation services that are alien, individualised, and Eurocentric in nature. Whānau were integral during rehabilitation for Māori to navigate the nuances and complex processes of rehabilitation and the wider health system. The proposed solutions for cultural safety describe how rehabilitation professionals can enhance the mana of Māori consumers and embrace Te Ao Māori me ōna tikanga during rehabilitation. Cultural safety has been recognised as a pathway for transformative change in the health system towards decolonisation and the eradication of health inequities (Came et al., 2021; Hunter et al., 2021). Therefore, it is essential that physical rehabilitation services realise and enact their responsibility to embed cultural safety throughout the rehabilitation journey.

The findings from this review challenge rehabilitation professionals to disrupt expectations that Māori have of culturally unsafe care. This review proposes steps that can be taken to make meaningful change. A first step towards culturally safe rehabilitation is to increase clinician awareness of what has caused intergenerational distrust and suspicion of the health services. These issues stem from the historical impact of colonisation on the current set up of the health system in Aotearoa and how this links to the negative healthcare experiences and poor outcomes that Māori have today (Wilson & Haretuku, 2015). Rehabilitation professionals must also critically reflect on their own cultural norms, both personally and professionally, and acknowledge implicit biases and power differentials (McKenna, 2020). Clinicians who are cognisant of historical and contemporary effects of colonisation, and health inequities, can prioritise the provision of culturally safe care. The demonstration of sensitivity to these matters in clinical interactions has the power to negate preconceptions and help to overcome past negative experiences (Levack et al., 2016; Wild et al., 2021).

This review found that involvement of whānau made a critical difference for Māori during rehabilitation, leading to a raft of positive outcomes. Such benefits included increased participation and engagement, more effective discharge planning, and ensured the provision of culturally appropriate care. The concepts of autonomy and physical independence are taken for granted in rehabilitation contexts as a universally valued goal (Carpenter & Suto, 2008). An essential step, therefore, towards countering individualistic models of care is to adopt a whānau-centred approach to rehabilitation (Wepa & Wilson, 2019). Whānau-centred care has been described as an approach that is holistic and grounded in culture, focused on individual wellbeing within the whānau context as well as overall wellbeing of the whānau collective (Te Puni Kōkiri, 2015). In enabling whānau-centred care, rehabilitation services must acknowledge the needs of whānau Māori to decrease the burden on the collective whānau unit. This may be achieved through strategies such as provision of accommodation, funding for kai and transport, and creating clinical environments that are inviting for whānau (Pihema, 2022; Wepa & Wilson, 2019). It has been suggested that privacy policies adopted in Eurocentric clinical environments are not always conducive to whānau inclusion (Pene et al., 2023). Delivery of home-based rehabilitation has been suggested to facilitate increased whānau involvement (Cate et al., 2023; Pene et al., 2023).

Māori draw strength from tikanga, with whakawhanaungatanga the most frequently recommended solution for the incorporation of Te Ao Māori practices during rehabilitation. Building therapeutic rapport is a well-known concept in rehabilitation. Whakawhanaungatanga extends beyond therapeutic rapport, however, to a deeper connection that is vital for Māori and is underpinned by wairua, whakapapa, whenua, and whānau (Wilson et al., 2022; Wilson et al., 2021). Ways in which whakawhanaungatanga can be cultivated include proper name pronunciation, reciprocal sharing of personal information from staff, offering kai, and respectful interactions that are friendly and open. Because relationships between staff and patients during rehabilitation often occur over longer periods of time than in other health settings, such as an acute medical encounter, this provides increased opportunity for the formation of meaningful connections. Furthermore, during rehabilitation allied health professionals occupy intimate spaces in the lives of Māori patients when they are at their most vulnerable, making supportive therapeutic relationships crucial (Came et al., 2021).

Participants from this study appreciated the familiarity and comfort of working with other Māori who could understand their perspective and cultural position, which led to a natural ease when forming connections (Bourke et al., 2023; Levack et al., 2016). While this perspective is not new, this review draws attention to the pressing need to develop the Māori allied health rehabilitation workforce. Trends suggest that the Māori health workforce is increasing in Aotearoa, however statistics show that Māori remain underrepresented across groups of allied health professionals compared to their proportion of the general population (17%). In 2020, 8% of occupational therapists and 7% of physiotherapists in Aotearoa identified as Māori (Te Rau Ora, 2022). Studies have shown the Māori allied health students and new graduates encounter personal and institutional racism and struggle with a lack of cultural support and supervision (Davis & Came, 2022; Tofi, 2021). Pathways for Māori into allied health professions and the retention of clinicians once qualified are areas of workforce development that require close attention (Davis & Came, 2022; Wikaire & Ratima, 2011).

While increasing the Māori rehabilitation workforce is crucial, it does not absolve non-Māori clinicians from engaging with Te Ao Māori. Participants from several of the studies described positive encounters with non-Māori clinicians who incorporated their knowledge of Te Ao Māori. Cultural safety training has the potential to address gaps in clinician knowledge related to enacting elements of Te Ao Māori in practice (Hunter, 2020; Kurtz et al., 2018). Clinician accountability through cultural competencies can be beneficial as long as practice standards are clear and consistent and actions are measurable (Heke et al., 2019). Several studies suggested Te Whare Tapa Whā and the Meihana model as examples of health models that could be used to guide culturally appropriate service delivery. Māori health models are suggested as they can facilitate holistic care, emphasise relationship building and forming connections, recognise the role of whānau, and promote inclusion of Te Ao Māori as directed by whānau (Bourke et al., 2023; Silveira, 2022).

The cultural safety of rehabilitation services involves genuine engagement and investment from organisations and the wider health system. Māori perspectives should be sought in both service provision and development (Pihema, 2022; Wilson et al., 2022). With increased recognition of the health inequities that Indigenous people face, there has been an international surge in the implementation of cultural safety training in the last ten years (MacLean et al., 2023). However, evidence to support the efficacy of cultural safety training is lacking. The evaluation of cultural safety training to date has focused on learner experience (Hardy et al., 2023; MacLean et al., 2023). Evaluating through learner perspectives is problematic given that culturally safety is defined by the recipient of care. The impact of implementing cultural safety policy and training is an area that needs further research.

In terms of mana-enhancing service provision, it is important that when providing rehabilitation, clinicians recognise ngā matatini Māori – Māori diversity (Durie, 1995).

Not all Māori share the same life experience and engage with Te Ao Māori me ōna tikanga in the same way. Understanding the influence of colonisation on migration and urbanisation of Māori can help clinicians to avoid typifying Māori as a singular group rather than as a culturally diverse group of people. Assumptions about Māori can cause whakamā and diminish mana (Wepa, 2015). Clinicians need to be aware of possible differences in values and beliefs. Collaboration is crucial when working with Māori to ensure their needs and cultural preferences are known and subsequently met throughout rehabilitation. Shared decision-making and whānau-centred goal setting, approaches that align with best practice in rehabilitation, are ways in which this collaboration should occur (Baker, 2023).

3.4.1 Implications for the qualitative study

Although there was sufficient literature to complete this review, the results highlight that the topic of Māori experiences of physical rehabilitation experiences is a relatively unexplored area. The paucity of research provides justification for the qualitative study to add to the growing body of knowledge in this space. The following points of note from the scoping review informed the qualitative study phase of this research.

Numerous studies excluded from this review reported to have Māori participants as part of their cohort. Such studies did not separate their results by ethnicity making it impossible to decipher Māori experiences from those of non-Māori. Not separating Māori experience from the whole cohort indicates an almost tokenistic inclusion that lacks depth of exploration and analysis. While it is positive that Māori are actively being included in health research, this review shows an overall lack of focus on reporting outcomes and experiences that are unique to Māori. The next phase of this research sought to exclusively explore the experiences of Māori service users.

Several of the studies included in this review explored specific parts of rehabilitation including telehealth (Graham et al., 2022), use of equipment (Boland et al., 2020), caregiving (Fernandez, 2020; Silveira, 2022), therapeutic connection/alliance (Bishop et al., 2021; Wilson et al., 2022), barriers and facilitators (Harwood et al., 2022; Wild et al., 2020), uptake and access (Bourke et al., 2023; Levack et al., 2016; Perry et al., 2015). Because no previous studies of Māori hand therapy experiences were found in this review, it was thought best to broaden the topic of exploration to overall experiences for the next phase of this research, rather than limit investigation to a specific rehabilitation phase or intervention. Furthermore, topics frequently seen in the literature guided the formation of the interview guide for the qualitative portion of this research. As the scoping review was happening concurrently with participant interviews, development of the interview guide was an iterative process where new interview questions were formulated, and existing questions edited in line with scoping review findings.

3.4.2 Limitations

While this was a scoping review, allowing for a broader search of sources for evidence, the definitions of health and rehabilitation used in the search strategy may have limited the studies available for inclusion. The WHO definition of rehabilitation emphasises the independence of individuals rather than collective health and wellbeing. The search for physical conditions in isolation contrasts with Māori holistic and collective concepts of health and wellbeing, where taha tinana cannot be separated from taha whānau, taha hinengaro and taha wairua. Using these definitions in the search for literature may have resulted in only finding studies that define health in a similar, westernised fashion.

3.5 Summary

This chapter discussed the results of a scoping review that synthesised Māori experiences of physical rehabilitation in Aotearoa. It is apparent that rehabilitation providers, as in other healthcare settings, are not consistently delivering culturally safe care for Māori. Rehabilitation services are challenged to create a safe space for Māori and deliver whānau-centred care. Whānau Māori could then focus their energy on healing and recovery without having to navigate cultural collisions throughout the rehabilitation journey. The qualitative phase of this research sought to explore experiences and clarify ways in which solutions could be put into practice for Māori in the hand therapy context. The next chapter describes research design of the qualitative study.

Chapter 4 Qualitative Study Methods

4.1 Introduction

This chapter describes the methodology and methods used for the qualitative study portion of this research. First the interpretive description methodology is discussed. Followed by a description of the ethical and cultural considerations that influenced the research design. Lastly, the methods used for data collection and analysis are outlined.

4.2 Interpretive description

Ontological and epistemological positioning informs choice of research methodology and methods (Hesse-Biber, 2017). Methodology is the theory of inquiry and holds the principles that direct a research approach. Methodology points the researcher to a particular research process and is a guide for how a study should occur (Grant & Giddings, 2002). This qualitative study used interpretive description as a methodological framework, underpinned by a Tiriti informed approach as described in Chapter 2 .

Interpretive description is a qualitative approach that originated in the nursing discipline but has since been adopted by allied health professions (Thorne, 2008). Interpretive description has roots in the qualitative methodologies of grounded theory, ethnography, and phenomenology (Brewer et al., 2014). Thorne (2014) noticed the challenges clinicians were facing in adhering to the theoretical conventions of such methodologies and so designed a methodology that was based in clinical practice. Interpretive description was designed to explore subjective experiences (Thorne, 2008). It aims to produce knowledge that is based on understanding the complexity and nuance of clinical interactions with a view to aiding clinical decision-making (Thorne, 2014). Thus, this methodological approach links with this study’s objectives to explore Māori experiences of hand therapy and solutions for cultural safe service provision.

Interpretive description has a practice orientation and locates itself within the philosophical background of the researcher’s clinical discipline (Hunt, 2009; Thorne, 2016). As outlined in Chapter 2 , both my professions of occupational therapy and hand therapy have their origins in western-designed rehabilitation, which influenced the context of this study and my researcher orientation. However, my orientation was also guided by my responsibilities as a Tiriti partner. Interpretive description embraces subjective epistemology in its recognition that the personal and professional experience of a researcher will inevitably influence the research process and production of knowledge (Thorne, 2016). Therefore, my orientation as a researcher to the partnership envisioned in Te Tiriti led to the co-production of knowledge with Māori participants, rather than allowing my western-influenced clinical lens to dominate (Thorne, 2016).

Integrity of purpose forms the basis for interpretive description and cross-cultural research (Hudson & Russell, 2009; Thorne, 2016). The study purpose should be based in a real-world research question and an appreciation of the researcher's intended audience (Thorne, 2016). As discussed in Chapter 1 , the research question arose from issues I had observed in clinical practice. The integrity of this study's purpose was bolstered by my increased understanding of the different experiences that Māori patients have during rehabilitation that I explored through completion of the scoping review discussed in Chapter 3 . Additionally, I had an appreciation for the perspective of my study's intended audience from discussions with colleagues related to the challenges of practicing in culturally safe and equity-focused ways.

Interpretive description goes beyond mere description to seek associations and patterns and dive into the domain of interpretive explanation (Berryman, 2013; Thorne, 2008). Interpretive description acknowledges the subjective, contextual, and socially constructed nature of human experience (Thorne, 2016). The relativist ontology of interpretive description, which maintains that multiple realities and knowledge systems exist, lent itself to this study's recognition of diverse Māori realities in Aotearoa (Durie, 1995; Thorne, 2016). Affirming the distinct experiences and worldviews that Māori have creates a space for critical exploration in research (Hudson & Russell, 2009). The depth of interpretation that this methodology allows was pertinent to this study and my desire to explore the influence of racism in hand therapy settings. The covert existence of privilege and racism in Aotearoa required a methodology that enabled a deeper exploration of Māori experiences relative to these concepts (Reid et al., 2019; Selak et al., 2020).

Interpretive description aims to produce results that can inform clinical practice. An interpretive description methodology was therefore chosen to generate insights into

Māori consumers experiences with the potential to inform culturally safe delivery of hand therapy services. As culturally safe care is defined by the recipients of care, it is integral that hand therapists gain understanding of the experiences of the Māori patients they work with (Curtis et al., 2019; Wepa, 2015). Additionally, patient narratives are said to have the potential to evoke empathy in the perpetrators of racist behaviours, thereby increasing awareness and potentially changing the behaviour of individual hand therapists when treating Māori patients (Wain et al., 2016).

4.3 Ethics

4.3.1 Ethical approval

Ethics approval was obtained from the Auckland University of Technology Ethics Committee (AUTEC) on 21/03/2023. Approval code: 23/12 (Appendix A). Localities approval was granted by Counties Manukau Health on 01/05/2023. Study number 1739 (Appendix B).

4.3.2 Ethical considerations

Te Ara Tika Framework framed the ethics of this study to ensure Te Tiriti responsibilities were enacted (Hudson et al., 2010). The four tikanga-based principles in the Māori ethical framework of Te Ara Tika, whakapapa, tika, manaakitanga, and mana, are explained in this section, alongside how they were applied in this study.

4.3.2.1 Whakapapa

Whakapapa relates to the genesis and purpose of the research for Māori. The intention of this study was that through raising awareness of Māori experience hand therapists and other allied health professionals will be better equipped to address issues of equity and cultural safety in clinical practice. Whakapapa also encompasses guidelines for ethical relationships with Māori during the research process. The research relationships with Māori for this study occurred at consultation and engagement levels. The process of consultation is described in the 4.4 (below). Fostering relationships through consultation with research colleagues exposed me to a variety of Māori perspectives and enabled thoughtful dialogue regarding the study purpose and design.

For ethical engagement with Māori, whakawhanaungatanga was incorporated at different stages of the study. An effort was made to build connections kanohi-ki-te-kanohi with hand therapy colleagues during the recruitment phase. Building relationships in-person was intended to encourage hand therapists to engage with Māori patients regarding study recruitment and to enhance my understandings of the impact this study may have in clinical contexts through discussion with colleagues. Whakawhanaungatanga with participants occurred during recruitment and data collection. The relationships formed with participants were maintained throughout the study by offering an opportunity to connect at a videocall hui to discuss the initial findings and in sharing the final study results.

4.3.2.2 Tika

Tika refers to ethical research design for Māori. Māori were involved in this study as part of the supervisory team, in the consultation phase, and as participants. As previously discussed, this study prioritised Māori rights as stipulated in Te Tiriti. Although the initial concept of this study arose from my clinical observations, the addition of the solution focus of this study was in response to feedback received from the Māori research advisor at Counties Manukau Health. The co-production of knowledge between participants and the researcher, reflecting the partnership aspired to in Te Tiriti, was also an ethical design consideration. A videocall hui was held with participants to seek feedback on the first round of reflexive thematic analysis to ensure this co-production of knowledge between Pākehā researcher and Māori participants. The hui is described in more detail in section 4.5.3. The final study results were shared and access to publications arising from the study offered to participants and their whānau.

There was no conflict of interest identified for this study. As per the eligibility criteria described in Table 4.1, I did not interview patients I had treated previously. Funding for this study was received from Hand Therapy New Zealand, Counties Manukau Health and Hands on Rehabilitation Ltd. Funders were not involved in study design, data collection or analysis. Although hand therapists working for the funding organisations were involved in recruitment of participants, there was no expectation or coercion involved in this process.

4.3.2.3 Manaakitanga

Manaakitanga in Te Ara Tika is a principle that ensures the mana of the participants, and the researcher is upheld. For confidentiality purposes, participants were offered the opportunity to anonymise themselves by selecting a pseudonym if they wished. Hand therapy clinics and health facilities were not named in the interview transcripts. Data has been de-identified and stored on an encrypted external hard drive. The researcher has a role to uphold participant mana through manaakitanga. Elements of tikanga Māori were incorporated during the data collection phase. My pepeha was included on the participant information sheet (Appendix J) and I also offered it verbally to participants at the time of interview. Interview participants were given the option to have a whānau member present. Karakia were offered at the beginning and end of the interviews and hui. Printouts of karakia were used to allow participants to join or follow along as they wished (Appendix I). Kai was offered to participants during in-person interviews. Koha were offered to all study participants.

4.3.2.4 Mana

Mana relates to Māori power, choice, and control in the research. To avoid conflict of interest or coercion, I did not recruit participants who were or had previously been treated under my care. Consent to be contacted was gained initially through expressions of interest. Once potential participants indicated they were happy to proceed, an interview was organised, and a participant information sheet was provided to them (Appendix J). Participants were given up to the point of interview to consider the information provided. Informed consent was gained from all participants at the scheduled interview time before commencing the interview itself. Written consent was gained for in-person interviews. Verbal consent was recorded for those who opted for interview via phone or videocall (Appendix K). Ongoing consent was incorporated during the interviews (Thorne, 2016). For example, during one of the interviews, I checked with a participant regarding inclusion of a sensitive story that was shared, which was subsequently excluded from the interview transcript at the participant’s request. Power and control were shared with participants during data analysis. Seeking feedback during the hui in the early reflexive thematic analysis phase ensured my interpretations of the data were in keeping with participant perspectives. The hui was also an opportunity for participants to have input regarding use of language in the content and naming of themes.

4.4 Research consultation

Consultation with Māori was paramount to ensure the cultural safety of the study and appropriate inclusion of tikanga. My primary supervisor (DW) had oversight for the study's cultural safety. Additional consultation was sought in keeping with expectations for research at AUT and Counties Manukau Health.

The research proposal was reviewed in October and November 2022 by the co-directors of the AUT Taupua Waiora Centre for Māori research, Professor Denise Wilson, and Dr Isaac Warbrick. Feedback received from this review encouraged me to think more deeply about the practicalities of enacting a study underpinned by a Tiriti informed approach and led to using Hudson et al.'s (2010) Te Ara Tika ethical framework.

I sought consultation with the research team at Counties Manukau Health. The team included research advisors for qualitative and quantitative methods, biostatisticians, a research librarian, and a Māori research advisor. Following on from the suggestions of the Māori research advisor, a solution focus was adopted for this study. As part of Counties Manukau Health localities approval process, my research proposal was reviewed by The Iwi United Engaged team (Appendix L). This review affirmed the value of this study amongst a growing body of equity-focused research and supported the practical implementation of a Tiriti informed approach.

A consultation meeting with AUT's School of Clinical Sciences Mātauranga Māori Committee took place on 03/04/2023 (Appendix M). Discussion was had regarding the challenges of recruitment of Māori for research. In response to this feedback Māori patterns were added to the recruitment poster (Appendix G). I also aimed to present the study kanohi-ki-te-kanohi at hand therapy clinics to boost recruitment. The committee also offered an opportunity to pilot the interview schedule with a committee member. In discussion with my supervisors, it was felt that this would not be necessary given that the interview guide is an iterative document and would change as interviews progressed in response to participant perspectives. Within our supervisory team, we discussed the suggestion from the committee of having a Māori co-researcher. It was felt that this would not be feasible within the limited timeframe and expectations of a master's level study. I also felt that it was important to demonstrate to other Pākehā that culturally safe research with Māori participants is possible and to add to the body of literature that provides evidence of this. Additionally, it was felt that the role of DW as primary supervisor was sufficient in bringing a Māori perspective to the study. We acknowledged the benefits of having a Māori co-researcher, and this is something to consider for future research.

4.5 Methods

4.5.1 Participants

In qualitative research, the quality of the data trumps the number of participants in the sample (Teodoro et al., 2018; Terry et al., 2017). Decisions regarding sample size should be made to ensure the research question is addressed within the confines of what is practicable (Thorne, 2016). The sample size for this study was between 12 and 15 Māori adults. As Māori are under-represented in health research it was decided to recruit a larger sample size (Francis et al., 2019; Reid et al., 2017). Interpretive description questions whether a representative sample can truly be achieved and instead sets about exploring perspectives based within the nature and boundaries of the sample (Thorne, 2008). This study aimed to encourage Māori participation and to reinforce the rich and diverse value of all Māori experiences (Kearns et al., 2021; Thorne, 2016). Therefore, the first 15 Māori participants to express interest within the appropriate timeframe, who met the eligibility criteria were included in the data collection phase. See Table 4.1 for eligibility criteria.

Table 4.1

Participant Eligibility Criteria

Identify as New Zealand Māori
Be over 18 years of age
Have attended a minimum of two hand therapy appointments in the past 6 months
Have attended/are attending a hand therapy clinic in Tāmaki Makaurau
Have not received hand therapy under the direct care of the researcher

4.5.2 Recruitment

Participants were recruited through hand therapy clinics across Tāmaki Makaurau. The clinics considered to be within the eligible region were those located in Tāmaki Makaurau as defined on the Hand Therapy New Zealand website. At the time of recruitment, the Southernmost hand therapy clinic was in Pukekohe and the Northernmost was in Mangawhai (Hand Therapy New Zealand, 2023). An email was sent to 22 hand therapy clinical leads providing study details and requesting assistance with recruitment. The clinical leads were asked to sign a form to approve recruitment for this study via their clinics (Appendix E). Clinical leads from seven hand therapy companies agreed to assist with recruitment. A total of 27 hand therapy clinics were involved in recruitment, 1 of which was a publicly funded outpatient clinic, and the remainder were privately owned.

Hand therapy clinic leads were asked to share information regarding recruitment with staff members. I met with several clinics kanohi-ki-te-kanohi to present the research and recruitment strategy to hand therapy staff. Study advertisement posters and expressions of interest forms were provided to all participating clinics. Clinicians were asked to gather expressions of interest from patients who met the eligibility criteria. Participants were requested to share their contact details with the researcher. Expressions of interest could be made through the hand therapist by completion of an expression of interest form (Appendix F) or via the recruitment poster (Appendix G). The poster provided options for participants to express interest by directly contacting me by phone or email or by scanning a QR code and completing an electronic expression of interest form.

Once an individual expressed interest, I contacted them by phone. This initial phone call was an opportunity for whakawhanaungatanga and to provide more detail regarding the study. At the end of this phone call if the individual was happy to proceed, an interview was arranged. An email was sent to the participant with confirmation details and the participant information sheet attached. As discussed in section 4.3.2, informed consent was then gained at the time of the interview. Written consent was gained for in-person interviews and verbal consent from those whose interviews were carried out by phone or videocall.

4.5.3 Data collection

4.5.3.1 Interviews

Data were generated using semi-structured, exploratory interviews. A semi-structured, exploratory interview is a data collection tool that uses a set of pre-determined questions, in a flexible manner, to examine subjective experience (McGrath et al., 2019). This interview method was chosen as it uses narrative experiences to gain detailed insights into a relatively unexplored field (Willig, 2013). The semi-structured interview also fit with the emergent quality of this interpretive description study, in that it enabled exploration of a wide variety topics relevant to the research question (Thorne, 2016).

Flexibility of options and participant choice were paramount in organising the interviews to enable Māori participation (Reid et al., 2017). Participants were advised that interviews would take approximately 60 to 90 minutes. Participants were encouraged to have a nominated whānau member present if they wished. Participants were offered the option to complete interviews kanohi-ki-te-kanohi at the participant's home or preferred location, via phone, or by videocall. The option to complete interviews with a te reo Māori interpreter was also offered. In-person and phone interviews were audio recorded on a dictaphone and the researcher's mobile phone for backup. Videocalls used the meeting record function. Once interviews were complete the audio and video interview files were saved to a password protected external hard drive and permanently deleted from the recording device.

4.5.3.2 Pōwhiri process for the interviews

The four elements of the pōwhiri process relevant to health research, as described by McClintock et al. (2010), were followed during interviews. It was essential for this study to follow a culturally recognisable process and adopt an approach that prioritises manaakitanga and positive relationships with tangata whenua during research (McClintock et al., 2010). The first element was karanga which related to the right of entry and the importance of the consent process for participants being invited to engage in the study. The second was mihimihi which involved allowing time for whanaungatanga and explaining the purpose of the interview in the context of the study. The third element of the process was based on the whaikōrero which involved the data collection portion of the interview through listening and discussion. Finally, the fourth element, koha were offered to participants to demonstrate appreciation for the time and stories shared during the interview.

4.5.3.3 Interview guide

An interview guide was used as a reference document in a semi-structured manner during the interviews (Olsen, 2014). The interview guide (Appendix H) was initially designed based on what I had learned during postgraduate study in relation to Māori experiences of health services. The interview guide was also discussed during supervision, particularly from my primary supervisor's perspective as a Māori researcher, to ensure the questions would capture Māori experience in a culturally safe manner. The data gleaned from a semi-structured interview depends on the rapport established with participants, so the guide began with more general questions before delving into personal questions (Willig, 2013). To seek patterns that aligned with clinical practice, the interview questions focused on steps in the hand therapy patient journey from referral to discharge (Thorne, 2008). Domains that were explored included practical aspects of attending hand therapy, participants' relationships with hand therapy staff, participants' experiences of the treatment received and wider aspects of the health system that may impact on hand therapy experiences for Māori. The interview guide incorporated a solution focus to gather constructive feedback from Māori for the delivery of culturally safe hand therapy.

The first draft of the interview guide was shared within the supervisory team. The interview guide was an iterative document and changed as interviews progressed, according to questions that worked well for eliciting information, and discussions with my supervisors (Thorne, 2016). I constantly referred to the scoping review during the data collection phase to enable more in-depth exploration of the concepts highlighted in the review during interviews. I wrote reflections in my research journal after each interview regarding what did and did not go well, discussion topics of interest, and my initial responses to answers given by participants. These reflective notes, alongside familiarisation notes, written during early phases of data analysis allowed iterative development of the interview guide throughout the data collection phase (Terry & Hayfield, 2021).

Each subsequent interview presented an opportunity to expand insights on topics discussed in the one previous. Areas to be explored in more depth were added to the guide, including questions relating to pain management, rongoā Māori, and observations of other patients in the clinic. New interview questions also arose from my own evolving understanding of Te Ao Māori and the experiences of being Māori in health spaces. For example, I changed the wording of questions to increase their relevance for Māori such as using the term wairua instead of spirituality. I also altered questions to ensure they would account for diverse experiences of Māori, for example those who were brought up with tikanga versus those who were not. Appendix H shows the interview guide with new or revised questions that were added as the interview guide developed highlighted in yellow.

Furthermore, audio recordings and reflections were shared among the supervisory team to challenge my researcher assumptions and discuss instances of Pākehā paralysis that occurred during interviews. For example, my supervisors noticed my awkwardness in asking about the experience of racism and the challenge participants sometimes face in recognising the manifestations of racism. My supervisors therefore encouraged me to reflect on my reservations and to find different ways to elicit information on this topic by asking different types of questions. This process supported development of my interview style and skill and ensured data collection was in keeping with the research question (Terry et al., 2017).

4.5.4 Data analysis

Reflexive thematic analysis was used based on the six phases described by Braun and Clarke (2022). Reflexive thematic analysis involves the development of themes from a series of codes generated from qualitative data (Braun & Clarke, 2021). The six phases should be used iteratively and recursively for depth of engagement with the data (Terry & Hayfield, 2021). Data collection via interviews and the early stages of data analysis, such as familiarisation through listening to and transcription of the interviews, happened concurrently (Braun & Clarke, 2022; Thorne, 2016).

4.5.4.1 Phase 1: Familiarisation

Phase 1 of reflexive thematic analysis is familiarisation, which is the process of getting to know the data (Terry & Hayfield, 2021). Familiarisation occurred through repeated listening to the interview recordings, reading reflective notes in my research journal that had been written after each interview, during the process of transcription, and re-reading of the transcripts (Burdine et al., 2021). While reading, listening, and transcribing, I took notes in my research journal so that I could reflect on patient narratives and consider similarities and differences between interviews. These familiarisation notes formed the basis for early ideas about concepts and themes that informed later stages of data analysis.

I transcribed all of the interviews on Microsoft Word using intelligent verbatim. Intelligent verbatim is a transcription method that allows the transcriber to make decisions about what to include in the text, for example repetitions can be omitted, and grammar errors can be amended. While remaining close to what participants say, transcription in qualitative research goes beyond the utilitarian process of converting verbal utterances to text to include reflective processes (Shelton & Flint, 2021). Intelligent verbatim transcription sat well within the methodological framework of this study because it is interpretive and subjective, in that the transcriber’s positionality influences the transcript produced (McMullin, 2023).

4.5.4.2 Phase 2: Coding

The second phase of thematic analysis is coding. Coding is a process where segments of transcript are labelled with a code that captures the meaning of that data extract. Coding builds from the familiarisation phase to a more systematic and interpretive process (Terry & Hayfield, 2021). Interview transcripts were uploaded to the qualitative data analysis software NVivo 14 for the coding phase (Lumivero, 2023). NVivo 14 software was used through an AUT licence. Codes were generated inductively, meaning that codes arose from within the data set rather than using a predetermined framework by which to perform analysis (Azungah, 2018; Thorne, 2008).

All data were allocated at least one code, with both semantic and latent codes used. Semantic codes are those that stay close to the participants’ meaning. An example of a semantic code from this study was ‘whānau offered encouragement during hand therapy.’ Latent codes are more interpretive and capture the meaning behind what is being said, for example ‘culturally safe care for Māori complements safe care delivery for all’ (Terry & Hayfield, 2021). Codes changed and developed with each subsequent interview coded. Code names were altered as new aspects of the data were realised and my understanding of the data deepened. As coding progressed, earlier transcripts were revisited for the addition of new codes or revision of codes previously allocated.

4.5.4.3 Phase 3: Initial theme generation

Initial theme generation, the third phase of reflexive thematic analysis, involves looking at codes in more depth and comparing and grouping codes to develop patterns of meaning from the data (Braun & Clarke, 2022). Codes were exported from NVivo 14 to an online visual Miro whiteboard for phase 3 (Miro, 2022). Participant data and direct quotes were not uploaded to Miro. In a similar fashion to the data analysis method used for the scoping review, each code was copied to a ‘sticky note’ on the Miro whiteboard. During this phase, codes were moved around the Miro board and were grouped and connected by shared meaning. This process of clustering codes enabled the construction of prototype themes (Braun & Clarke, 2022). See Figure 4.1 which shows sample images of clustering codes and formulating themes on the Miro whiteboard.

4.5.4.4 Phase 4: Developing and reviewing themes

Phase 4 of reflexive thematic analysis is the development and refining of prototype themes. This phase involved returning to the coded data and overall data set to ensure themes were telling a cohesive story (Terry & Hayfield, 2021). Themes continued to be edited on the Miro whiteboard during this phase. Figure 4.1 shows images of theme development.

Part of the theming phases included a hui with participants. This involved a presentation of the prototype themes to participants. Participants who had expressed interest during the interviews were invited to attend an online hui. Four participants attended the hui, and a recording of the hui was sent to those who were unable to attend. This step of the process was completed to ensure themes were in keeping with the experiences of participants. During the hui I sought participant perspectives on language used, content of the themes and interpretations of the data. Involving the participants in the formation of themes enhanced the rigour of analysis by increasing my depth of understanding of the data. Furthermore, points of emphasis for final themes were clarified based on discussions with participants during the hui. For example, hui participants noted the consistent descriptions of patient safety depicted within the themes. Participants commented on the work clinicians need to do to ensure patients feel safe and how this is likely missing from any training they do. These thoughts shared by participants led me to emphasise safety within the themes and the ways in which hand therapists can facilitate feelings of safety, namely through building connection and forming meaningful relationships with patients.

Figure 4.1

Reflexive Thematic Analysis Miro Board

Note. Reflexive thematic analysis phase 3 initial theme generation: This image depicts the process of theme generation through clustering of codes on 'sticky notes'

Note. Reflexive thematic analysis phase 3 initial theme generation: This image depicts the process of theme generation through organisation of 'sticky note' codes to form prototype themes

Note. Reflexive thematic analysis phase 4 developing and reviewing themes: Sample image of a developing theme

4.5.4.5 Phase 5: Defining and naming themes

Definition of themes is an important step to ensure clarity and conceptual depth of themes (Terry & Hayfield, 2021). Theme definitions were written and shared with the supervisory team. Recommendations for emphasis and delineation of thematic content were advised. Final theme titles were decided upon within the supervisory team.

4.5.4.6 Phase 6: Writing the report

Finally, phase 6 was reporting the results of reflexive thematic analysis. Themes continued to be revised during this phase to ensure the report reflected the narrative constructed from the qualitative interview data. Participants quotes were added to the report to support the narrative for each theme.

4.6 Rigour

It has been argued that quality criteria within qualitative studies is inappropriate as the concept of study rigour arose from the positivist paradigm (Patterson et al., 2023). However, it is important that research with the intent of having clinical application makes the processes that were used explicit to ensure quality and integrity of the research (Amankwaa, 2016; Ancker et al., 2021). Therefore, transparency of research processes and use of the principles of rigour are essential to interpretive description research (Burdine et al., 2021; Thorne, 2016). This section describes the principles and processes that were applied in this study to ensure it was conducted in a methodologically sound manner.

Integrity is an element of rigour that refers to cohesion of research practices throughout the process (Levitt, 2021). In this study, integrity was ensured through development of a protocol that followed a reliable methodological framework and evidence-based analytic processes (Burdine et al., 2021). I ensured there was cohesion from the theoretical underpinnings through to the research questions that guided the study (Thorne, 2016). Researcher reflexivity was actioned in recognition of biases that were likely to influence the research (Burdine et al., 2021). My assumptions were challenged by regularly engaging with my research supervisors and by keeping a reflective research journal to document my thoughts and perceptions (Braun & Clarke, 2022; Thorne, 2016).

To ensure data gathered was rich and in keeping with the research objectives, I took field notes during and after interviews and shared interview audio recordings and reflections with my supervisors (Braun & Clarke, 2022). Member checking by sharing initial themes with participants via an online hui enriched the data analysis process (Burdine et al., 2021). It was pertinent that themes being generated were in keeping with Māori experiences, particularly in the context of a Pākehā researcher analysing Māori descriptions (Thorne, 2016). Additionally, having a Māori member of the supervisory team added to the cultural trustworthiness and depth of data analysis.

The protocol for this study was published in the New Zealand Journal of Occupational therapy (Sheehy et al., 2024a) (Appendix N). The protocol detailed the researcher's positionality and choices made relating to research design transparent. Publication of the protocol acted as an audit trail to enable peer review and allowed readers to decipher the study's quality and usefulness (Patterson et al., 2023).

4.7 Summary

This chapter provided details regarding the interpretive description methodology and methods used for the qualitative study portion of this research. An outline of the considerations that impacted on the design of this study were outlined including ethical concerns, consultation processes, and steps to ensure rigour. The next chapter will describe the findings of this qualitative study.

Chapter 5 Qualitative Study Findings

5.1 Introduction

This chapter reports the findings of the qualitative study. Details pertaining to the interviews conducted and participants are summarised. The findings from the qualitative study are presented in five themes that describe Māori experiences of hand therapy in Tāmaki Makaurau and solutions proposed to enhance service delivery for Māori.

5.2 Results

5.2.1 Recruitment

A total of 21 individuals expressed interest in the study. Four people contacted me directly, seven expressed their interest via the poster QR code, and ten expression of interest forms were returned by treating hand therapists. Four individuals who expressed interest were unable to be contacted. One individual was interviewed, who I later realised had been a patient of mine. I subsequently advised the participant that I would not be able to include his data. He was understanding of the situation. He was provided with a koha, and a written summary of the findings was sent to him.

5.2.2 Interviews

Fifteen interviews were completed between June and November 2023. All interviews were carried out in English. Ten interviews were carried out kanohi-ki-te-kanohi, three via videocall, and two via phone. Three of the in-person interviews were carried out in the participant’s home and the remainder were conducted at cafes. One participant had a supporting whānau member present during their interview.

5.2.3 Participants

From the interviews, 13 of the participants were wāhine Māori. The age range of participants was 22-64. Eight of the participants reported that they were employed or were students in the health field. Participants interviewed were treated across different locations in Tāmaki Makaurau from nine hand therapy clinics. Six participants were treated in hand therapy clinics located south and centrally, and one each from clinics located in western, northern and eastern suburbs. One participant was treated at a publicly funded hand therapy clinic and the rest at private clinics.

As per the eligibility criteria, each participant had attended a minimum of two hand therapy appointments. Six were attending hand therapy for the first time. Six participants had been discharged from hand therapy at the time of their interview. Participants reported they were referred to hand therapy by their GP (5), their hand surgeon (3), a hospital (3), self-referral (3) or their treating physiotherapist (1). Thirteen participants were treated for injuries covered by ACC, of which 7 were fractures, 5 were soft tissue sprains, and 1 was a tendon laceration. Four participants received hand therapy for post-surgical rehabilitation. Two individuals were being treated for acquired conditions, one in the publicly funded service and another paid for their hand therapy privately. Table 5.1 provides a summary of participant details.

Eight participants chose to use a pseudonym. Most picked their own pseudonym, and one participant asked me to assign a pseudonym on their behalf. The other participants were happy to use their own names.

Table 5.1

Participants

Name	Gender	Clinic Location	Clinic Type	Condition Type	Funding	First time at HT
Anna	F	Central	Private	Injury	ACC	No
Ariana	F	Central	Private	Injury	ACC	No
Booboo	F	South	Private	Injury	ACC	Yes
Brooke	F	East	Private	Injury	ACC	No
Catheryne	F	South	Public	Acquired	Public	No
Cynthia	F	South	Private	Injury	ACC	Yes
Kevan	M	South	Private	Injury	ACC	Yes
Kiriwai	F	Central	Private	Injury	ACC	Yes
Mereana	F	North	Private	Injury	ACC	Yes
Purerehua	F	South	Private	Injury	ACC	No
Shanan	M	West	Private	Injury	ACC	No
Sophie	F	Central	Private	Injury	ACC	No
Tracy	F	South	Private	Injury	ACC	Yes
Tūāwhiorangi	F	Central	Private	Injury	ACC	No
Whetū	F	Central	Private	Acquired	Private	No

5.3 Dissemination of the results

A written summary of the findings has been provided to those participants who indicated they would like to receive one and to the hand therapy clinics who were involved in participant recruitment (Appendix Q). A findings summary and final report have also been provided to AUTEC, those who provided study funding, and the groups with whom consultation was completed prior to commencing the study. Publications arising from this study to date have been made available to participants and their whānau. The qualitative study protocol (Appendix N) and scoping review (Appendix O) have been published (Sheehy et al., 2024a, 2024b). It is intended that the results of the qualitative study will also be written up for publication and presented at the Hand Therapy New Zealand conference in 2025.

5.4 Themes

Five themes were generated from the qualitative interview data: Building a bridge to hīkoi hand in hand; Keeping negative health experiences at arm's length; Cultural connections are straight up magic; The hand therapist as a taonga; Hei haumaru kei aku ringa. Each theme encompasses the experiences of participants and solutions posed for hand therapy services. Quotes are included to illustrate the themes and were selected to be representative of all participant perspectives.

5.4.1 Theme 1: Building a bridge to hīkoi hand in hand

This theme describes the journey that the patient and therapist go on together during hand therapy. This journey started with the positions held individually by the patient and the hand therapist. The patient and the hand therapist then met and formed a connection that set the tone for the journey to come. If the connection was positive, the patient and hand therapist travelled together towards the goal of recovery. Taking a hīkoi alongside one another enabled collaborative engagement throughout hand therapy. One participant described this journey as building a bridge and walking over it hand in hand with her hand therapist.

Before building the bridge together, both the patient and the therapist held positions individually that would influence the journey to come. Participants started with their own approach to and expectations for health encounters, as well as their motivations for attending hand therapy. Participants' own approach to healthcare was often influenced by their whānau. Participants reported that seeking healthcare was unusual within their whānau, particularly if their issue was not life threatening. This was seen by participants as an intergenerational whānau approach to health that was passed on from the time of colonisation.

> *They come from this family who goes 'I don't need a doctor, I'm alright'…and carrying on…so you see that growing up and then it passes on to you. So, I probably wouldn't have gone to the doctor had I not seen it [hand] go black*
>
> (Mereana)

One aspect that influenced the patient position before the journey was their understanding of the health system. Some participants recognised their privilege in knowing how to navigate the health system, learning through experience or exposure, which made it easier for them to access services like hand therapy. Those participants described themselves as the whānau member who would encourage others to seek healthcare when needed, as they had a better understanding of what was available.

Another aspect that influenced the patient's position was their expectations of health and hand therapy services. Most participants did not know what to expect from hand therapy, having never heard of it before. Participants talked about being apprehensive going to hand therapy for the first time due to past negative healthcare encounters. One participant felt that her own preconceptions were influenced not only by direct experience but also what is regularly reported about the negative health experiences of Māori.

> *We've gotten a lot of exposure to the life experiences of Māori whānau, even my Māori whānau. Not necessarily to hand physios particularly, but to referral processes, to the delay, to the lost in translation, to the lost to follow up, and all those kinds of stories… All these really poor experiences that, because that's what we've been focusing on for so long, it almost promotes deficit framing for our Māori whānau…we almost expect it*
>
> (Tūāwhiorangi)

Participants described motivations they had for wanting to engage that led them to begin their journey with hand therapy. Participant motivations included disruption to their normal activities of daily living, wanting to return to work as soon as possible, and concern about the long-term function of their hand. Participants talked about wanting to make a full recovery rather than accept their lot and make do with issues of ongoing pain and stiffness. Many described whānau members who had not been to see a hand therapist which had resulted in permanent impairments. Wanting to be well for themselves and whānau also motivated participants to recover from their hand injury.

> *If you're a grandparent and you have some kind of injury, you do your best to keep yourself on top of it. Not only for your own sake but for the sake of your children and your grandchildren and great grands when you get them*
>
> (Tracy)

Participants recognised the position held by their hand therapist influenced the hand therapy journey. Suggestions were made relating to mahi that hand therapists should undertake before working with Māori patients. Participants advised that hand therapists demonstrate an awareness of their own culture, particularly in the context of Aotearoa. Participants reported they could sense whether their hand therapist had done this type of mahi in their āhua and wairua and therefore the connection was enhanced. There was awareness among participants of the roles of management and the wider health system in encouraging this type of practice and developing therapist confidence to engage with Māori in culturally appropriate ways.

> *It's important for you to know who you are. If there's been wrong doings against Māori within your whānau, that's ok…You didn't do it personally, it was your tīpuna, but it's about acknowledging it…being aware of it, taking it on board…it's a big fish to swallow but you know, single bites and you get through it…*
>
> (Purerehua)

The beginnings of building the bridge of connection started for participants with first impressions. First impressions were described as make or break for several participants that would determine whether they would engage with hand therapy. Participants had a keen sense of the wairua of both the clinic and staff. The role of the receptionist was integral in making the first impression for many. One participant related the initial interaction with reception to a karanga on to the marae that established hand therapy as welcoming (or not).

> *When I first walked into the building, they’ve got this lovely…lady in there. So, the first person who you meet when you go into a building...it’s like the marae when you get the welcome…someone doing the karanga and if it doesn’t have that thing in it, you already know oh God, they don’t want me*
>
> (Cynthia)

Observing positive interactions amongst staff and other patients added a warm, friendly, and collective orientation to a clinic, despite being a health space. When talking about the wairua of clinical spaces several participants compared their sense of comfort in the more casual and relaxed hand therapy clinic to the formal atmosphere of their hand surgeon’s rooms or the cold, dismissive nature of emergency departments. The welcoming feel of a clinic coupled with initial positive interactions with staff created a healing space for participants that they could enter with confidence. When the clinic was welcoming it facilitated natural and genuine engagement between participant and hand therapist.

> *I was happy to go and be there and get the treatment…my partner came in with me the first few times…and we would all talk and it was relaxed and flowing. It was really nice, good atmosphere for healing*
>
> (Kevan)

Whakawhanaungatanga underpinned every step of the hand therapy journey. Reciprocity in the relationship helped to build connection. Participants consistently described causal conversation and sharing personal information as cornerstones to whakawhanaungatanga. Participants felt that interactions were genuine when they were getting to know their therapist on a more human level. Building a connection in this way meant that participants looked forward to their hand therapy appointments. It also meant participants were more confident to discuss concerns, ask questions, and listen to instructions given which further enhanced the connection and the hand therapy journey overall.

> *I think it's a two-way street, so it's not just…your therapist…saying 'how are you today, how was your weekend?'…when it gets to them actually sharing some of their story too, because that's what I've loved about my hand therapist is that I feel that I know some of who she is as a person outside of this little cubicle that I see her in*
>
> (Ariana)

5.4.2 Theme 2: Keeping negative health experiences at arm's length

This theme outlines the negative health experiences described by participants. Participants gave examples of interactions with hand therapy staff and other health professionals both relating to their hand therapy journey and those that had happened in the past. In their descriptions of negative encounters, participants often expressed ways in which hand therapy services differed. Participants found there were traits unique to hand therapy that enhanced the positivity of their experiences and kept negative experiences at arm's length. The main positive feature of hand therapy was the close relationship with the hand therapist which is described in theme 4. Hand therapy as a service, however, was found to have innate traits that led to a more positive experience for participants. These distinct features of hand therapy that led to more positive experiences for participants are highlighted at the end of this theme in contrast to the negative experiences of health services.

The kinds of negative experiences that many participants had encountered in the past were varied. Participants described interactions with health professionals, in settings such as emergency departments, hospitals, and primary care facilities, that diminished their mana. Many felt belittled during interactions, where they were made to question their knowledge of their own body and felt they were expected to know things they had not been told. Participants felt dismissed and misunderstood by health professionals. Several participants felt doctors tended to answer their concerns with prescriptions for medication that they did not know the purpose of and were sent on their way. Negative interactions seemed to imprint on the memories of the participants who experienced them which resulted in reluctance to return for treatment.

> *Really really bad service, pushy, hammering, disrespectful. So, it's easy to remember. And yes, I know I came in the middle of the night and then getting told why didn't you come sooner…They just did an x-ray, said 'you'll be right' and wrapped it up willy nilly…Then straight to this specialist for surgery…and he can't do any surgery so oh well, we'll give you pills and go away*
>
> (Purerehua)

Participants were prepared to face discrimination in health settings. Participants tried to avoid entering health spaces thinking that negative interactions would be based in racist behaviours, but most did encounter some form of discrimination. Some participants who had not encountered discrimination recognised that their perceived ethnicity shielded them and made it easier to blend with Pākehā. Participants described not being overly disturbed when discrimination happened as it was the norm and tried not to concern themselves with other people's perspectives.

> *I don't really fear much judgement from people. You know if people want to do that to me then people just do…what happens happens…Yeah that's like child's play to me, like when I walk into waiting rooms and clinics…I will get looked at…But I'll walk straight past them with my head up…I don't like to respond or retaliate to anybody. Nah, I know where I'm from, I know exactly who I am…That's all embedded in me, sorry!*
>
> (Booboo)

Participants also reportedly modified their behaviour based on the wairua of the clinical environment and staff. When their own wairua did not feel safe that was a sign for participants to interact reservedly and cautiously or leave the environment altogether. Additionally, several participants felt they had to hold back their emotional responses when upset or angry for fear they would not receive the treatment they needed, sensing their frustration would be misinterpreted as aggression because they were Māori.

> *You know we're human and we get frustrated and when we vent that frustration straight away it's aggression. It's like, so how do we express that without looking aggressive? I really don't know…*
>
> (Catheryne)

Negative experiences during hand therapy were not commonly reported in the interviews, but there were some who did not enjoy their hand therapy to the same extent as others. The main difference for those who had negative hand therapy experiences was that the relationship with the therapist was distant and sterile. For some this meant not returning for further treatment and therefore living with residual issues with their hand. One participant and her sister were attending the same hand therapy clinic but were treated by two different therapists. While the participant had a positive relationship with her hand therapist, her sister felt she was receiving poor treatment in comparison. This participant's sister felt her therapist was disengaged, that she was receiving minimal treatment, and that she was not progressing. Another participant felt that her pain was poorly managed to the point where she felt she was unable to talk to her hand therapist about it.

> *I just didn't really speak up…the exercises hurt…it was always sore…I definitely struggled with feeling like I could say 'that hurts, I can't do that' and her being like 'oh well you've just been sore for so long and you don't realise how much your body can do, you need to push yourself.' It was like I've been doing it for long enough that I know when pushing it is too much…but because it looked good on the x-ray it shouldn't be hurting*
>
> (Whetū)

Participants also felt any recognition of ethnicity or culture was lacking in hand therapy, with minimal acknowledgement of Te Ao Māori. Some participants recalled ticking a box on a form at the beginning of their hand therapy as the only time ethnicity or culture was mentioned. Other participants felt indifferent about their hand therapy experience, describing it as no different from any other health experience in terms of a lack of cultural connection.

> *I can't think of any experiences where they've gone in to Te Ao Māori in any kind of detail or included that as part of the overall session or treatment. So, it wasn't different from anything else, which is not necessarily a good thing. I guess for hand therapy specifically, it was very similar to other experiences*
>
> (Kiriwai)

Participants' negative experiences contrasted with the descriptions of those who held hand therapy in high regard. Hand therapy was described as a different kind of health service when compared to emergency services or primary care, which had more time constraints and tended to want to pump patients through the door. Participants appreciated the organised and efficient feel of hand therapy appointments. Some were impressed that although their appointment was 30 minutes, it felt that a lot was achieved in a short space of time. This resulted in patients not feeling rushed or that they were just the next patient in line.

Treatment for the hand was seen to be a breeze compared to more tapu body parts or more serious health conditions that participants had received healthcare for, such as cancer or cardiac conditions. Additionally, hand therapy exercises were described as more doable than for injuries to other parts of the body. Hand therapy exercises did not require equipment and could be done without other people noticing, making it easier to engage in rehabilitation outside the clinic.

The expertise that hand therapists displayed because of the specialised area of healthcare was appreciated. Participants also enjoyed the novel approaches that hand therapy offered such as splinting and paraffin wax baths. One of the most frequently reported differences noted between hand therapy and other services was the level of explanation given by hand therapists regarding their care. Hand therapists were found to take the time to ensure they shared their specialist knowledge in a way that could be understood by the participants.

> *I have enormous respect and trust…I don't feel any hesitancy. I just think they're so incredibly competent. You know they look at hands all day, every day…They just know things about my hands that I could never know, and I really do trust them to have the insight to ensure what needs to be done*
>
> (Sophie)

The intimacy of touch and being hand to hand and face to face was recognised by participants as unique to hand therapy. This closeness enabled the development of trust, communication, and a meaningful relationship with hand therapists. This feature of hand therapy was described in stark contrast to quick, one-sided consultations in an office without eye contact or a handshake, or the coldness of being touched through an instrument.

5.4.3 Theme 3: Cultural connections are straight up magic!

This theme depicts the significant impact of cultural connections for participants. This theme also includes considerations suggested by participants for creating cultural connections during hand therapy. Cultural connections were not often encountered in healthcare environments or hand therapy, but when present had a significant effect on participants. One participant described the depth of cultural connection he experienced at a clinic with a Māori carving at reception.

> *You walk in and there's this stunning carving…it's just so cool and it makes you feel connected straight away, as soon as you're standing in front of it…Being Māori and growing up with a lot of that kind of culture and remembering going to the different marae…going through the urupā and seeing all the carvings…it's like a flood, like a rush of cultural connection*
>
> (Shanan)

Participants reported use of te reo Māori enhanced cultural connection. For participants speaking te reo Māori in health spaces was appreciated as it made them instantly feel safe. Participants felt encouraged when clinicians initiated the use of te reo Māori during appointments. One participant described a meaningful encounter with a doctor who spoke te reo Māori, which made her whānau feel acknowledged as Māori.

> *The first doctor that came around to meet with us did a mini pepeha…it instantly made all of us feel like [this was a] safe person. Because...you wouldn't necessarily know by looking at us that we are Māori, but when somebody greets you in te reo, we feel safer, because we feel like all the parts of us are acknowledged, that we're not just passing*
>
> (Sophie)

Incorporating Māori ways of doing things through inclusion of whānau and increasing the Māori health workforce were seen by participants as positive moves towards boosting the cultural connectedness of hand therapy services. Only one participant encountered a Māori hand therapist. Those who had experienced encounters with Māori staff in other settings strongly advocated for increasing the number of Māori hand therapists. Participants felt comfortable with Māori clinicians who shared cultural understanding and intuitively knew about whānau approaches to health.

> *I feel more comfortable talking with Māori and greeting Māori than I do outside that space because it just feels foreign…it's not as comfortable, it just doesn't feel as accepted even though it probably is, you still have this apprehension…it's like being with your friends versus when you are around strangers*
>
> (Anna)

Whānau inclusion during hand therapy was described by participants as uplifting. Participants relied on whānau during hand therapy for support, encouragement to engage and work on their recovery. Whānau attended hand therapy to tautoko the participants, which was particularly important for the first few appointments when participants were unsure what to expect and therefore feeling vulnerable. One participant talked about meeting her hand therapist's child, which enhanced the connection between them.

> *I think what was beautiful was when she had her son there. I thought that was gorgeous…my personal wairua was lifted by that…she's human and she has a family…if you wanna think about Māori, our kids are everything, they are our future…our whakapapa…they mean everything…so you know we love kids, bring the kids!*
>
> (Brooke)

The notable absence of Te Ao Māori and tikanga in health spaces and hand therapy was felt by participants to depict a lack of solidarity or inclusion. Participants felt seen when there was something present that spoke to them as Māori. Visibility of Te Ao Māori meant that at least one person in that clinical space acknowledged tangata whenua. Hand therapy spaces were described as medical and practical, which participants understood to be necessary but felt more of an effort could be made through the implementation of simple solutions. One participant discussed use of poi as part of her exercise programme, which felt like a form of cultural connection. A few participants noticed pot plants in their hand therapy clinic, which were signs of te taiao and took the edge off the clinical feel. Others suggested visible elements of Te Ao Māori such as art and signage would give some sense of belonging. Participants also discussed the possibility of including elements of rongoā Māori that were relevant to hand therapy, namely in the form of topical ointments such as kawakawa.

When asked about the incorporation of Te Ao Māori into their hand therapy, participants struggled to imagine how it would be integrated. Some participants described apprehension about being Māori outside Māori spaces and were wary of the perceptions of people from other cultures. Participants also did not think services would view engaging with Te Ao Māori as valuable practice. Participants did not expect Te Ao Māori to feature in their hand therapy, nor in any other health setting, but felt its inclusion would be beneficial and that they would have welcomed it had it been offered. Participants also found it hard to picture the logistics of including tikanga into short appointments when their hand therapist already had a lot to do. Some participants felt that the option to engage with hauora Māori services could sit well alongside hand therapy. Others believed Te Ao Māori approaches should be seamlessly interwoven with standard health practices, rather than making a big deal of it being a different approach or handing someone a list of alternative services available.

> *You want to apply tikanga…but if you're getting funded from the government and you've gotta put in your reports, they don't want to hear that you spent 20 hours doing that when you could have been productive…wouldn't it be just a bit too much to ask of a hand therapist?*
>
> (Cynthia)

In working towards enhancing cultural connections, there was also recognition from participants that services such as hand therapy need to cater for diverse Māori. From the group of participants there was a mix of exposure to Te Ao Māori across the lifespan which impacted on whether it was sought as part of a participant's health encounters. A few participants brought up the identity of urban Māori in Tāmaki Makaurau, which related to Māori who had moved away from their own iwi to the whenua of another and to those Māori who grew up away from their hapū in urban areas. In addressing the differences in tikanga amongst iwi, it was suggested that hand therapy services could consult with mana whenua in the clinic's location regarding implementation of appropriate tikanga.

There was a strong feeling from participants that the incorporation of Te Ao Māori needed to be genuine. Participants questioned the motivations of apparent tokenistic inclusion, for example labelling objects in te reo Māori or hanging a poster of Te Whare Tapa Whā. There was a sense from participants that these token gestures resulted from government directives or were put in place to increase funding and served to further isolate Māori in health spaces. Participants who were familiar, suggested that there was a real disconnect between health practice and what is written in policy documents for the implementation of Te Ao Māori and tikanga. Participants who had experiences championed iwi-led or hauora Māori services that routinely provided holistic care through a lens of Te Ao Māori. These were seen as the types of services where the magic of cultural connections was apparent and consistently present throughout.

> *Every morning out in the foyer you can hear waiata Māori and they start with a karakia...So when I came to Auckland I never saw any of that, apart from the door's got the label of door on it and catchphrases everywhere…but where are the actual Māori…or the greeting in Māori, where's the welcoming, where's not so much pōwhiri, but where's the warm welcome to this place…*
>
> (Mereana)

5.4.4 Theme 4: The hand therapist as a taonga

This theme relates to the treasured relationship built over time with the same hand therapist that was held as a taonga for those participants who had a positive hand therapy experience. This theme also describes the opportunities that arise from this relationship to provide holistic, culturally appropriate, and mana-enhancing care for Māori.

Participants described traits that their hand therapist displayed that led to the development of this important relationship. Participants valued hand therapists who were friendly, engaged, and were clearly passionate about their job. Humility was a favoured trait with participants appreciating a hand therapist who was open when they did not know the answer and was willing to find someone who did. Participants also described their hand therapist as understanding of their situation, for example when they needed to reschedule appointments for whānau or work emergencies that arose.

The meaningful connection established with the hand therapist resulted in positive outcomes throughout the hand therapy experience. Participants felt listened to and respected and that they could trust their hand therapist. Participants found they could be honest with their therapist without fear of judgement. Several participants knew they would not be told off by their therapist when they had forgotten to do their exercises for example.

> *There've been two times when I've had to change the appointment, but she understands because of my work... I feel bad when I go back [to other places] ...and I feel like I'm sitting there trying to explain myself. With [my hand therapist] I don't have to; she knows I work in crisis and these things happen*
>
> (Catheryne)

Participants felt their motivations for attending were addressed in hand therapy. Participants were often upset and frustrated at having injured themselves or not being able to do certain tasks. Many found their hand therapist empathetic and considerate of how they were feeling, giving them time and space to talk about emotional issues during appointments. The close relationship meant working together on goals that were based on what participants wanted to achieve. Participants found they could collaborate with their therapist to find interventions that were tailored to them. Hand therapists also provided a roadmap for what to expect and celebrated milestones achieved with participants. Seeing progress and knowing recovery was on the right trajectory enriched the hand therapy process for participants.

> *I like that she was quite inclusive in her approach to giving advice. It wasn't just you must do these things, but it was more her making suggestions on what's going to aid my recovery...but still giving me some ownership on some of those decisions. For example, I assumed I wouldn't be able to play hockey straight away. She...just went through the pros and cons but still left that decision to me which I appreciated*
>
> (Kiriwai)

The close connection meant that participants looked forward to and enjoyed their appointments on a different level. Despite having competing commitments in their lives, participants prioritised attendance to hand therapy because they felt it was worthwhile. Some participants talked about feeling accountable to their hand therapist because it truly felt as though they were on the same team and so they wanted to improve not only for themselves but for their therapist too.

> *We'd have conversations… just helped me talk through…what my goals are, what my hobbies are, how it's affecting the rest of my life. I think that was really cool and it definitely helped…I enjoyed going to hand therapy, stayed with it longer and felt it was really catered…I'd say something that I wanted to do and she'd…make up exercises that would work towards it*
>
> (Whetū)

Because of the trust established, participants felt their bodies, emotions, and their wairua would be safe in their hand therapist's care. The trust also meant that participants were comfortable to follow guidance given by their hand therapists, feeling they could understand the rationale behind advice and exercises given. The relationship was therefore viewed by participants as a springboard to help them to recognise their own mana for healing. Participants felt they could follow the steps provided by their hand therapist to achieve recovery. One participant found the relationship built with her hand therapists set the stage for how she would approach her recovery.

> *In those moments it really showed who I wanted to be and how I wanted…to heal my hand…after the cast came off that was all on me, am I going to come back here, or am I going to exercise my hand every hour. It was stuff like that that was really eye-opening for me because now I have to prioritise my health…or I'm gonna lose my hand. It just blew hand therapy out of the park for me, it's like that's it, hand therapy is it for me*
>
> (Booboo)

It was felt by participants that the safety of the relationship would enable hand therapists to offer elements of Te Ao Māori. It was suggested that hand therapists could have conversations about what culture would mean to patients and how they would like it to feature as part of their hand therapy journey.

> *Just a bit of dialogue, showing that you will acknowledge their culture and values and beliefs throughout their sessions. There's nothing like that…Because they say, what culture do you identify with…but what does that mean, what does that mean for your recovery?…I think just a few simple questions would make a lot of difference to how comfortable people feel…at least trying to provide some cultural safety and make even just a valiant attempt because usually it's in vain and a lot of people just don't identify with their Māori culture because they've been so far removed from it*
>
> (Shanan)

The power of just offering to include Te Ao Māori could open the doors to the magic of cultural connections during hand therapy. In recognising this opportunity however, participants suggested ways in which to approach this offering. Participants cautioned hand therapists to avoid making assumptions because not all Māori would accept the offer for various reasons including being unfamiliar or having tended to their wairua themselves. Consideration of differences was seen as vital by participants, so as not to further isolate Māori or cause whakamā. Participants who had not had much exposure, were keen to learn about ways in which Te Ao Māori could feature and felt their hand therapist could act as a conduit to introduce it.

> *For me, it would be a great place to learn about some of that stuff because when you go to a hand therapist, she tells me all about the different bones…and this is the hand…so it makes sense when you're talking about rehabilitation to be like there are these options from a Te Ao Māori perspective…then it gives space if people do want to know*
>
> (Ariana)

Several participants realised that the taonga of the relationship with their hand therapist and the resulting positive experiences should be the norm for Māori. The status of the relationship was seen by participants as an opening for hand therapists to provide positive health experiences for Māori amid so many negative ones. Participants felt hand therapists needed to recognise this opportunity and take responsibility for it.

> *I think positive interactions with health professionals shouldn't feel like this overwhelmingly fantastic thing…It's a shame that this isn't the norm for our Māori whānau, when it should be, when they have a right for it to be. I think there's a baseline quality of care that everyone has a right to and that should accommodate for a variety of cultural needs, but especially when it's the culture of the whenua…like when it's your own home you'd really hope that was what was promoted*
>
> (Tūāwhiorangi)

5.4.5 Theme 5: Hei haumaru kei aku ringa

The title of this theme is an adaptation of the whakataukī *hei kai kei aku ringa*. The meaning of this whakataukī is to use the resources available at hand to succeed (Brougham & Reed, 2012; Came, Warbrick, et al., 2020). This theme describes hand therapy that provides holistic, wraparound services and resources to shelter Māori health and wellbeing. This theme suggests moving beyond hand therapy that focuses only on an injury to incorporating wider health factors that filter into hand therapy patients' care including prevention and wellness, health determinants, access issues, whānau support, and cultural considerations. In considering wider health factors, hand therapy services can help with the provision of health resources needed to succeed. One participant spoke about the compartmentalisation of the health system and Te Ao Māori values. In discussing this topic, she gave the example of health services using te reo Māori terms but failing to provide services reflective of the depth of meaning behind terms such as haumaru.

> *Te Ao Māori and the healthcare system, they are kept very separate…It's really impactful to have Māori values not just guiding your practice but actually seen in your practice. Recently we've seen a change in guidelines having Māori translations, which I find quite ironic because often they're not...A lot of Māori words can't just be translated into a Pākehā word, it's about the action that's required, that makes it different. So, you could say the word haumaru and that means safety, but actually it means hau which is the wind and maru which is shade or shelter. So, the word haumaru is shelter from the winds and that can be anything and I think that is a much wider meaning than the word safety*
>
> (Tūāwhiorangi)

Part of providing hand therapy services that shelter Māori was the need to include holistic hauora Māori approaches. Participants felt it was important to recognise that the injured hand was attached to a person and appreciated it when their hand therapist treated more than just their hand. Considerations for holistic care suggested by participants included lifestyle factors, diet, and different types of treatment such as acupuncture or rongoā Māori. Some participants talked about regard for tapu and consent practices relating to the use of touch in hand therapy. Many participants were not keen on taking medications and appreciated being supported to find or offered alternatives. It was also suggested that holistic care involve more time for whakawhanaungatanga, increased care for wairua, and considerations of psychosocial factors.

> *I don't like corporate medications. We don't take pills and so we're using a lot of natural remedies like kawakawa oil and tea tree…I was using this really nice kawakawa on my arm over the scar and for the bruising…I talked to [my hand therapist] about them and she was positive…the less medication I take the better I feel*
>
> (Kevan)

Participants suggested that hand therapists broaden their awareness of the staunch approach that Māori often taken when it comes to health. Participants emphasised the need to offer options and ask questions as Māori are less likely to initiate or request something. Participants also advised that hand therapists need to be thoughtful in the way they ask about pain, as Māori will often deny pain because they don't want to appear weak. In discussions around pain participants also suggested that because Māori don't want to cause a raru and so put up with pain, hand therapists should ensure patients know that they do not have to live with the pain they have.

Manaakitanga was a value that was consistently suggested by participants as a way hand therapy services could take better care of Māori and their whānau. Participants demonstrated sensitivity to the struggles that other Māori face when entering health spaces and so advised services to address known barriers. Participants suggested that services factor in issues such as ease of access for example location, cost, and transport. Participants generally found arranging and attending hand therapy to be straightforward but were aware of others who may not have the same experience. Some participants had to reduce the number of treatments due to cost of attending hand therapy, particularly if they were seeing multiple health professionals simultaneously.

> *Maybe reduce payments…that would make a massive difference for people…accessing a free service, that would encourage…a number of people to get on board. Because if you are self-employed and then having to fork out $20 or whatever, to go get your hand seen to, you're going to take time off, or you're potentially already off work because of the injury. It's already impacting you financially without even attending the appointment*
>
> (Anna)

Others suggested boosting manaakitanga within the clinic environment, to soften the medical surroundings that Māori associate with harm. Participants felt that clinics could be made more welcoming to whānau by ensuring patients know support people are allowed and subsequently catered for in the environment. Solutions like offering a hot drink, having soft furnishings such as couches rather than plastic chairs, and ensuring physical access for individuals with mobility issues were proposed to make clinics more inviting. Reducing the probability of encountering embarrassment was felt to be important for hand therapy services as Māori are already apprehensive about attending health appointments.

> *Something to make the space feel…that they're in a safe place…encouragement for support people is something that could be improved…Like on the phone or in a confirmation text it could include that you're welcome to bring a support person…A lot of the time [clinics] are small, and you don't get the whole 'bring everyone in' [feel]*
>
> (Brooke)

Participants expressed the need for clear and cohesive service provision. Many struggled with confusing administrative tasks and felt they had to chase services to get the support and treatment they needed. Non-transparent processes caused unnecessary frustration for participants while trying to heal from their hand injury. Several participants returned to work earlier than recommended as they were unable to speak to ACC and missed out on receiving the right care when it was required.

> *Oh my gosh, ACC…I was supposed to be off for four weeks and they said to me that my ACC was assessed, so I assumed everything was ok…I had to ring them, and it took ages to get through…I just dropped it and asked my boss if I could come back to work… I had a lot of issues with them, just the waiting process on the line. I can't remember how long I was waiting…so I just cancelled it*
>
> (Tracy)

Participants felt that health professionals failed to recognise that knowing how to navigate the health system is a privilege many do not possess. It was proposed that hand therapists could be a gateway to the health system by helping to navigate processes, paperwork, and ensuring appropriate services are in place. Additionally, participants suggested that hand therapists and other health providers work together to create smooth and cohesive processes so that patients receive appropriate and timely care.

> *Just making it more accessible. I feel if the system was easier to understand I'd feel more welcome and respected. If they used language you [could] understand or help you through the paperwork side of things. I think those would make a big difference, not being sort of tokenistic but actually make a difference*
>
> (Whetū)

It was suggested that wraparound services should look beyond the clinic. An issue that repeatedly came up in the interviews was finding ways to spread awareness of hand therapy. There were participants who recognised the benefits of being familiar with hand therapy processes, for example knowing they could attend without a referral from another provider. Participants suggested spreading awareness through education at school level or at public places where it would be relevant such as sports venues. Others suggested making connections with local Māori and other healthcare providers who have a role in community health education. Participants advised the main avenue for advertisement of hand therapy was through whānau, as they share health experiences. Participants recognised the potential knock-on effect of positive health experiences for whānau access, and so this was another way to spread awareness through Māori communities.

5.5 Summary

This chapter presented the findings from the qualitative study. Five themes were generated using reflexive thematic analysis that answer the research questions: what are Māori patient experiences of hand therapy in Tāmaki Makaurau and what solutions do Māori patients propose to enhance hand therapy service delivery for Māori? Theme 1 described the process of forming meaningful connections between hand therapist and patient that allowed them to hīkoi together towards the goal of recovery. Theme 2 depicted the distinct characteristics of hand therapy that meant the frequently encountered negative health experiences that Māori face could be kept away at arm's length. Theme 3 highlighted the powerful and important impact of cultural connections for Māori when they were present as part of the health journey, from use of te reo Māori, to the presence of visual elements of Te Ao Māori, and incorporation of tikanga. Theme 4 illustrated the precious status of the relationship that was held as a taonga by participants. This esteemed relationship meant that participants found their hand therapy to be a beneficial and valuable experience. Theme 5 offered solutions for the provision of holistic, wraparound hand therapy services that shelter and protect Māori beyond the receipt of physical treatment alone. The next chapter will discuss the implications of these findings.

Chapter 6 Discussion

6.1 Introduction

The discussion firstly summarises the findings of the qualitative study and then outlines important considerations for hand therapy practice when working with Māori. Next, the findings are discussed in relation to occupational therapy practice with notable similarities between the holistic approach of occupational therapy models and hauora Māori approaches encouraged by participants. The challenges for change are then presented. Finally, the limitations of the qualitative study are discussed.

6.2 Summary of key findings

The aims of the qualitative study were to investigate Māori patient experiences of hand therapy in Tāmaki Makaurau and is the only study known to have explored this topic in Aotearoa. The five themes generated from the data provide a narrative that describes the journey that Māori patients go on when engaging with hand therapy. The themes encompass solutions suggested by participants to improve the cultural safety of service provision for Māori. The findings show that the initial connection between the patient and hand therapist was integral and impacted on the hand therapy journey to come. Hand therapy was found to have unique traits that enabled positive health encounters, the most important of which was the relationship with the hand therapist that was held by participants as a taonga. The positive characteristics of hand therapy contrasted with negative aspects of health services encountered by participants. Connections in health and hand therapy spaces provided participants with a sense of familiarity and belonging. Solutions for hand therapy included provision of services that genuinely engage with Te Ao Māori to enable cultural connections. Solutions also encouraged consideration of wider health factors to provide services that shelter the wellbeing of Māori and their whānau.

6.3 Normalising positive health experiences for Māori

The findings from this study show that, for the most part, hand therapists are doing well at a one-on-one level in terms of building a connection and establishing a close therapeutic relationship with Māori. The findings indicate an advanced level of practice on the part of hand therapists, stemming from long promoted incorporation of relational care as best practice with Māori (Levack et al., 2016; Wilson et al., 2022). The relationship with the hand therapist being held as a taonga is a novel finding from this study. Often Māori interactions with health professionals are described as negative and ineffective whereas my study highlighted a different relationship based on connection and trust (Komene et al., 2023). The finding that the relationship with the hand therapist is a taonga emphasises the importance of prioritising time spent on the instinctual and cultural ways in which Māori relate and connect with others through whakawhanaungatanga (Pene et al., 2023). Genuine human interaction was a key feature of whakawhanaungatanga from this study which included sharing of personal information and having casual conversations.

The close relationship with the hand therapist, formed through whakawhanaungatanga, led to a hand therapy journey that was largely described by participants as worthwhile and enjoyable. Whakawhanaungatanga formed the basis for a trusting and collaborative therapeutic relationship. Participants looked forward to seeing their hand therapist, prioritised attendance to their appointments, and were motivated to work together to achieve their goals. Within Te Ao Māori, relationships provide strength, especially during times of vulnerability and illness (Willig et al., 2020). These findings emphasise the importance of engaging in culturally relevant ways and clearly demonstrate the benefits resulting from whakawhanaungatanga for Māori patient participation and outcomes.

A feature that was consistently appreciated by participants was the way in which hand therapists provided explanations. Hand therapists were not seen to enforce their expertise but rather shared their knowledge at a level that participants could understand, which was not encountered as often with health professionals in other settings. These findings mirror previously reported research that encourages the creation of therapeutic relationships based on whakawhiti kōrero - reciprocal and collaborative conversations (Wilson et al., 2022).

It is important to note that many of the hand therapists’ positive traits and actions described by participants, related to what should be considered a basic standard of care. From the findings, the bar appears to be low for what Māori expect to encounter in health settings, such that feeling respected, listened to, and receiving understandable explanations about their diagnosis and treatment were perceived as outstanding care. Hand therapist conscientisation around their actions is essential as studies have found that Māori will endure poor health professional behaviour just so that they can receive the treatment they need (Komene et al., 2023; Wepa & Wilson, 2019). Hand therapists must be mindful of the impact of their behaviours and be particularly aware of the important role they have in making positive health experiences the norm for Māori, at the very least by consistently providing the basics of quality care.

6.4 Considerations when working with Māori in hand therapy

There are many complex and interlinking factors that filter into healthcare encounters with Māori. Several factors for hand therapists to consider were highlighted by participants, from historical and socio-economic health determinants to Māori diversity and tikanga. Narratives from participants indicated that small efforts made a big difference, particularly when the hand therapist already laid the foundations for a therapeutic relationship that offered a platform and a safe space to include elements from Te Ao Māori. Often health professionals are unsure as to the best place to start for implementation of cultural considerations for Māori and there is a fear of causing offence by getting things wrong (Crawford, 2016; Hotere-Barnes, 2015). Participants in this study challenged this notion, indicating that they would appreciate attempts from their Pākehā hand therapists to learn and try. There were a variety of strategies proposed by participants that could serve as a starting point for clinicians and services.

One solution proposed was ensuring a relaxed, welcoming, and friendly clinical environment. There were several suggestions made by participants to support this practice. The first suggestion was for hand therapists to increase their awareness of the importance of greetings and introductions in indicating to Māori that they are welcome. The first impression and wairua of a clinic and staff was make or break for participant engagement in hand therapy. Wairua is known to be a challenging concept to articulate in English, but it is an important concept for hand therapists to come to understand (Wilson et al., 2022). The participants from this study described wairua as something akin to a gut feeling, a vibe, or an innate sense that you get from a person or place. The initial point of contact with a member of staff set the tone of the hand therapy journey for Māori, be that with a hand therapist or receptionist. The second suggestion was provision of visual elements that soften the formal and medical atmosphere of the clinic. Features that may seem small, such as a pot plant, were noticed by participants and linked the clinic to te taiao, which is an instinctual cultural connection to Papatūānuku for Māori (McIntosh et al., 2021; Opai, 2021). The third suggestion made by participants was greeting Māori in te reo and offering a short pepeha or karakia. Participants thought that these recommendations could be easily implemented and would not take away from the hand therapists already busy treatment time. There were no expectations from participants that hand therapists would be experts in tikanga Māori, but a level of respectful curiosity was encouraged so that they could learn.

Other solutions suggested by participants could be interwoven, as they complement hand therapy practices that are already in place. The first solution emphasised the importance of seeking consent for touch. Consent practices are a mainstay in any health profession. An additional consideration that arose from the findings was to encourage hand therapists to respect te taha tinana as tapu and to request consent before touching a person's hand and body. The second solution was for hand therapists to adapt the way they discuss pain with Māori. Hand therapists regularly ask patients to rate and describe their pain with tools that have been developed outside Aotearoa (Hoeta et al., 2020). Participants from this study emphasised language usage when asking about pain. Eliminating the use of leading questions and framing discussions about treatment options using strengths-based discourse are crucial as Māori are likely to downplay or deny pain. Taking a holistic approach to asking about pain is important in Te Ao Māori, as pain is multidimensional and extends beyond the physical symptoms alone. Identifying whānau roles with Māori is also crucial when asking about pain, as often Māori will push through for the sake of others (Hoeta et al., 2020; Morunga et al., 2023).

Furthermore, Māori may be reluctant to discuss pain with health professionals who rely solely on medication to alleviate pain (Devan et al., 2021). Some participants did appreciate the non-pharmacological interventions offered by hand therapy. The option to engage with rongoā Māori could sit well alongside conservative hand therapy interventions. Although research exploring the incorporation of rongoā into allied health services is limited, the findings from this study indicate that Māori would like to see elements of rongoā appropriately included in hand therapy, such as use of natural balms and oils for massage (Gray, 2012).

6.5 Links with occupational therapy practice

Participants from the study emphasised the importance of being recognised as a whole person during their hand therapy. Participants appreciated hand therapists who explored the impact of their hand injury on engagement in valued activities of daily living and whānau roles. In particular, there was high praise for hand therapists who came to understand the impact of not being able to engage in meaningful activities on participants' wairua and emotional wellbeing. This finding closely links with the occupational therapy approach of seeking to enable people to participate in occupations. The term occupation, in a rehabilitation context, refers to any daily life activity that can occupy a person (Collis et al., 2021). The relevance of participants' hand therapy treatment was enhanced when therapists took the time to explore meaningful occupations, set occupation-based goals, and adapted interventions to enable return to these occupations. This in turn enhanced engagement because participants felt they were more involved in their care and could track their functional progress. Furthermore, during the hui to seek feedback on themes, one participant, who is an occupational therapist, noticed similarities between the qualitative study findings and occupational therapy practice. The hui discussion was a catalyst for me to explore the similarities between the qualitative study findings and occupational therapy theory in more depth.

Whakaora ngangahau is the te reo Māori term for occupational therapy that was gifted by Te Taura Whiri i te reo Māori | Māori Language Commission. The term speaks to restoring health and reawakening one's active self (Hopkirk, 2013). Occupational therapy recognises the inherent connections between identity, wellbeing, and participating in occupations that matter. Occupational therapy is underpinned by holism and is founded on the belief that cultural, spiritual, and social components of people, and their environment, filter into occupational participation (Meechan et al., 2024; World Federation of Occupational Therapy, 2024). Occupational participation relates to enabling people to gain access to, initiate, and sustain occupations they wish to engage in: how, when, where, and with the people they wish to pursue them (Egan & Restall, 2022a).

Participants appreciated hand therapists who explored occupation-based goals that were valued and designed treatments that helped in working towards achievement of those goals. In occupational therapy it is standard practice to use assessments to identify meaningful activities. In doing so, occupational therapists adapt treatment approaches to achieve goals that are set around activities of meaning within important relationships and contexts (Egan & Restall, 2022a). The ultimate goal of hand therapy has always been for patients to resume occupations of importance following injury. However, understandings of the value of occupation as a hand therapy treatment modality are emerging. Advantages of therapeutic use of occupation include facilitation of patient-focused therapy, capitalising on familiar and automatic movements rather than prescription of rote exercises, and distraction from anxiety and pain (Collis et al., 2020; Weinstock-Zlotnick & Mehta, 2019).

Ethnicity and culture are known to influence occupational preferences and their subjective significance. However, access to and the ability to sustain engagement in occupations that hold cultural relevance has been limited for Indigenous people through colonisation (Meechan et al., 2024). Therefore, hand therapists working with Māori are not only challenged to recognise the therapeutic benefits of occupation, but also the significant impact of engaging in culturally relevant occupations on connection, identity, and quality of life (Wright-St Clair et al., 2017). Previous occupational therapy research has found culturally situated activities within individual, whānau, and group settings can provide therapeutic benefits and cultural connection simultaneously. Culturally relevant occupations might include looking after plants and te taiao, events on the marae, hosting and looking after whānau, kapa haka, and Māori arts such as raranga and whakairo (Hollands et al., 2015; Schlötjes & Smith, 2022). Only one participant mentioned the use of a culturally relevant activity during her hand therapy treatment, in the form of wrist exercises with poi, which she initiated. Through whakawhanaungatanga and whakawhiti kōrero hand therapists can work together with Māori patients to discover meaningful occupational participation goals and ensure treatment is culturally relevant and occupation-focused (Komene et al., 2023; Wilson et al., 2022).

In Chapter 7 a recommendation is made about hand therapy delivering a holistic service – one that goes beyond hand injury rehabilitation alone. This holistic solution is informed by the holism that underpins both occupational therapy and hauora Māori practice models. Models are designed to guide health professionals' practice through explanation and characterisation of the concepts that underpin what they do, so that clinicians are conscious of the factors that shape their practice (Egan & Restall, 2022a). Embedding culturally relevant, relational practice frameworks in the health system is essential for improving Māori health experiences and addressing health inequities (Wilson et al., 2021). Thus, use of hauora Māori or occupational therapy practice models that encompass understandings of holism in health may be useful tools to guide hand therapy practice with Māori.

Holistic approaches to health, that involve interconnection of whānau and the environment with physical, emotional, and spiritual wellbeing, are reflected in hauora Māori models (McIntosh et al., 2021; Willig et al., 2020). Hauora Māori models include Durie's (1985) Te Whare Tapa Whā (Figure 6.1), Pere's (1997) Te Wheke, Durie's (2004) Te Pae Māhutonga and Pitama's (2007) Meihana model. Diagrammatic representations of practice models are common. Figure 6.1 shows the holistic dimensions of one of the most widely recognised hauora models, Te Whare Tapa Whā. The pillars of the house in Te Whare Tapa Whā represent four interdependent dimensions of hauora - physical, emotional, whānau, and spiritual wellbeing (Durie, 1985). It is essential that hand therapists come to understand the importance of exploring each hauora dimension when treating Māori in order to address the overall wellbeing of the individual and their whānau.

Figure 6.1

Te Whare Tapa Whā

Note. This image depicts the Te Whare Tapa Whā model that was developed by Mason Durie in 1985. From "*Māori health models – Te Whare Tapa Whā*" by Ministry of Health, 2023, https://www.health.govt.nz/our-work/populations/Māori-health/Māori-health-models/Māori-health-models-te-whare-tapa-wha. CC 4.0.

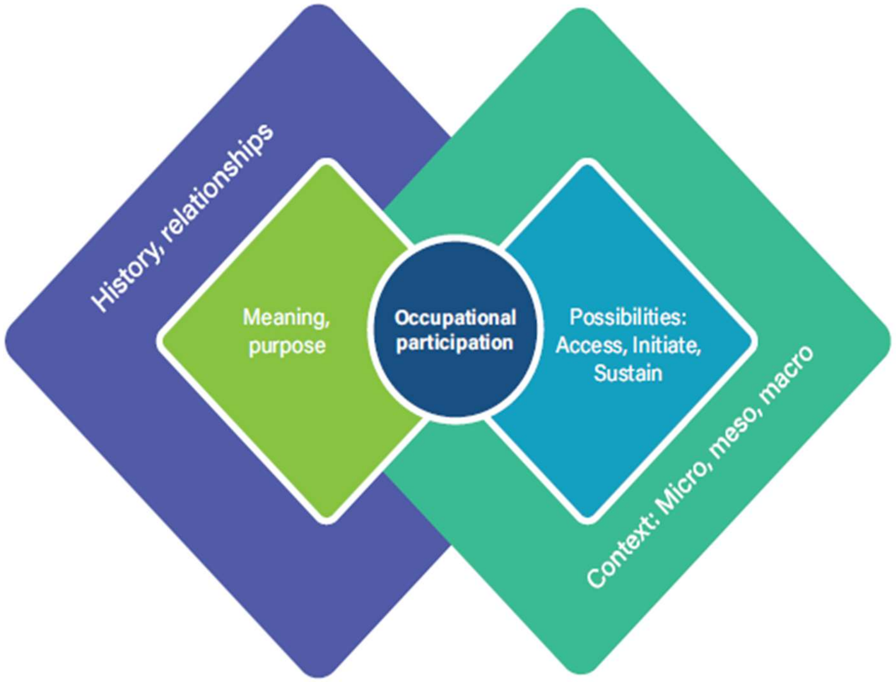
The multi-dimensional nature of wellbeing is also depicted in occupational therapy models. Occupational therapy models expand on holistic perspectives of hauora to include the dimension of occupation. Occupation is considered to be an important dimension of human health and wellbeing (Hopkirk & Wilson, 2014). The similarities between the solutions from this study and occupational therapy approaches are reflected in the latest iteration of the Canadian Model of Occupational Participation (CanMOP) and the Canadian Occupational Therapy Inter-Relational Practice Process Framework (COTIPP) (Figure 6.2) Although designed outside Aotearoa, the Canadian Association of Occupational Therapy worked closely with international and Indigenous occupational therapists in the development of the CanMOP and COTIPP (Egan & Restall, 2022b). The CanMOP is a model designed to guide therapists in their clinical reasoning in analysing occupational participation. The COTIPP frames interactions between clinicians and patients and encourages respectful partnership and collaboration with a focus on rights-based and equity-focused occupational therapy (Restall et al., 2022).

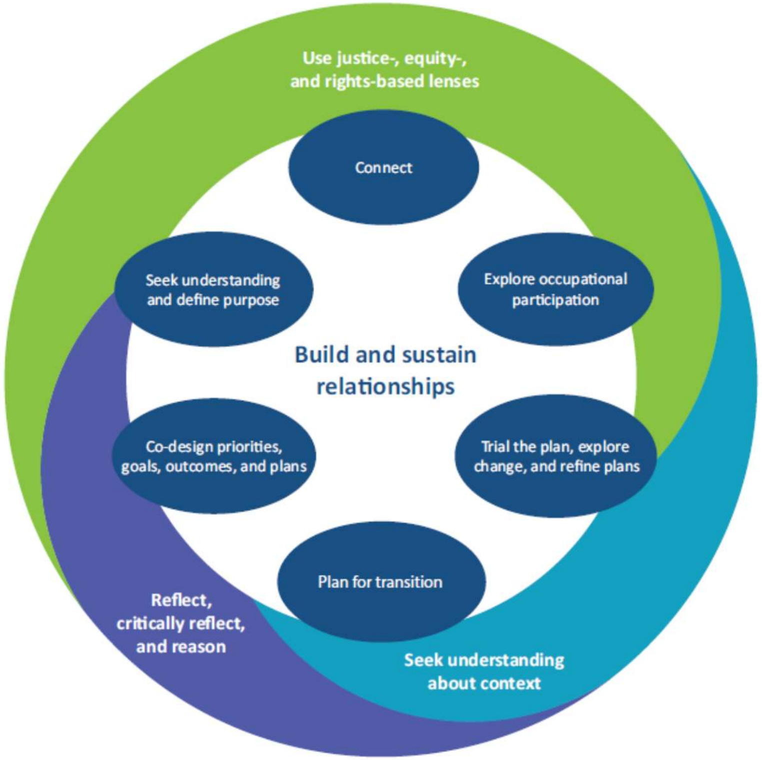
As demonstrated in Figure 6.2, the CanMOP encourages a broad exploration of meaning attributed to activities within important contexts and relationships (Egan & Restall, 2022a). The CanMOP is a new, evolved conceptual model and stands alone from previous Canadian occupational therapy models. The CanMOP was developed to enhance cultural understandings of occupational identity and to be open to the temporal and contextual determinants that influence occupational participation. Qualitative study participants wanted hand therapists to consider cultural, historical, and contextual health factors that influence Māori wellbeing. The CanMOP can be used by clinicians as a guiding framework to unpack a broad range of societal factors that influence health and rehabilitation. Furthermore, the COTIPP guides clinical interactions, supporting therapists to be critically self-reflective and adopt a rights-based and equity-focused approach (Restall et al., 2022). This COTIPP mirrors the collaborative and culturally safe connection making that was encouraged by the qualitative study participants.

There are barriers to implementing occupational therapy and hauora Māori approaches into a health system where a biomedical model trumps a biopsychosocial model of care (Gall et al., 2021; Timmins et al., 2023). In hand therapy, there remains a strong focus on biomedical approaches despite increasing evidence that supports occupation-based interventions (Collis et al., 2024). The connection between solutions posed in this study and occupational therapy practice points a way forward for hand therapy in Aotearoa. Because not all hand therapists are occupational therapists, it would be helpful to raise the awareness of both occupational therapists and physiotherapists of occupational therapy models. Such models can help to enhance understandings of occupation as a determinant of hauora, particularly when working with Māori.

Figure 6.2

Canadian Model of Occupational Participation (CanMOP) and Canadian Occupational Therapy Inter-Relational Practice Process Framework (COTIPP)





Note. From M. Egan & G. Restall (eds.) *Promoting occupational participation: collaborative relationship-focused occupational therapy* (p. 77), by M. Egan and G. Restall, 2022, Canadian Association of Occupational Therapists. Copyright 2022 by Canadian Association of Occupational Therapists. Reprinted with permission.

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6.6 The challenges for change

Although the findings of this study propose solutions that could be put in place to enhance hand therapy experiences for Māori, there are several challenges that must be overcome in the pursuit of Māori health equity and decolonisation of hand therapy services.

One challenge is the prioritisation of Māori solutions amongst the many demands on clinician time. Often health services will look to implement changes based on feedback from their consumers. However, Māori are known to have limited access and reduced attendance to specialist and outpatient services and therefore their perspective is less likely to be included (Espiner et al., 2021; Health Quality & Safety Commission New Zealand, 2019). Additionally, Māori patients who are attending hand therapy are less likely to complain and are more concerned with the comfort of their treating therapist so will stay with the status quo (Bourke et al., 2023; Wilson & Barton, 2012). On discussing this issue within our supervisory team, DW talked about Māori being told for 184 years that health services can only be configured in one way and so are not used to being offered hauora Māori options (personal communication, April 23, 2024). During interviews, participants often needed encouragement when discussing solutions and noticeably held answers back about what they would like to see in hand therapy services, assuming what they were asking for would not be realistic or seen as worthwhile. One participant commented that unless people go out and ask the questions, such as in this study, Māori perspectives will not be made known in health spaces that operate within the westernised health system, like hand therapy. These findings point to the desire for change but Māori not being offered the opportunity to discuss their experiences and solutions. Thus, there is a need for further research that focuses on exploring and implementing Māori solutions for healthcare delivery.

Hand therapists' clinical priorities are guided by policy and organisational change. Genuine and whole-hearted prioritisation of Māori health aspirations must filter through all levels so that service and clinician efforts to incorporate Te Ao Māori do not appear tokenistic (Durie, 1998). Health policy is showing gradual signs of providing guidance for tangible actions to improve Māori health experiences and outcomes. Documents that direct change give some hope that the health system is moving in the right direction, such as Whakamaua: Māori Health Action Plan 2020-2025 (Ministry Of Health, 2020). More recently research and policy are providing actionable advice for practitioners, for example in the ACC Kawa Whakaruruhau Policy and the Health and Quality Safety Commission's recommendations for trauma and care rehabilitation, but translation into practice remains lacking (Accident Compensation Corporation, 2023; Pihema, 2022). Despite long-standing commitments to reducing Māori health inequities, and integration of cultural competency and safety into the training of health professionals over the past 20 years, negative health statistics and experiences remain (Goodyear-Smith, 2019; Willig et al., 2020). The current government's disestablishment of Te Aka Whai Ora | Māori Health Authority poses challenges towards implementing cultural safety policy recommendations. Te Aka Whai Ora | Māori Health Authority was established in response to a recommendation from the Waitangi Tribunal. Its purpose was to guide and monitor the progress of Health New Zealand services in improving Māori healthcare delivery and outcomes (Te Aka Whai Ora, 2024). Te Aka Whai Ora | Māori Health Authority was seen as a fundamental step towards a health system that upholds Te Tiriti. Without Te Aka Whai Ora | Māori Health Authority the health system continues to have a lack of structured guidance or mechanisms of accountability for equitable service provision for Māori (Came, et al., 2024).

The findings of this study show that there are pockets of individual clinicians doing well but this is not consistent across services. It is imperative that overarching organisations guide practitioners and clinics in working towards the implementation of Māori solutions. There is opportunity for Hand Therapy New Zealand, which is currently rewriting its constitution, to make commitments to Te Tiriti in the delivery of hand therapy services in Aotearoa and make Māori health equity an organisational priority.

6.7 Study Limitations

Most of the study participants volunteered to be involved by contacting me directly, rather than recruitment via their hand therapist. The decision to interview the first 15 participants who met the eligibility criteria was made to assist in the recruitment of Māori for research. It is possible that mostly people with positive experiences of hand therapy volunteered to participate. The views of Māori who had different experiences may not be well represented in the study. Using purposive sampling to capture a broad range of experiences could be a useful consideration for future research.

The focus of this study was to explore the perspectives of those who had experience of engaging with hand therapy services. A limitation of this study was not capturing the experiences of Māori who never had the opportunity to attend or did not attend after the first appointment. Participants from this study commented that those patients with limited or no access to hand therapy were the ones who needed to be reached, therefore this is an area that would benefit from future research.

Another limitation of this study was exploring the experiences of Māori in Tāmaki Makaurau only. There is a notable difference in the numbers of hand therapists and clinics throughout Tāmaki Makaurau compared to rural locations in Aotearoa. This difference is reflected in the findings from this study with participants largely reporting ease of access to hand therapy appointments and clinic locations. It is possible that challenges of access would influence the hand therapy experiences of Māori elsewhere.

6.8 Summary

This chapter discussed implications of the findings from the qualitative study. Hand therapists are encouraged to recognise the opportunities presented by the position afforded to them by the taonga of the therapeutic relationship with Māori patients. Hands therapists can work to normalise positive health experiences for Māori by providing consistent quality care and incorporation of te reo Māori and tikanga. Although solutions have been proposed for individual clinicians and clinics, there remains the challenge of systemic change and moves towards organisations that mandate the prioritisation of Māori health aspirations in practice. Occupational therapy practice approaches and models offer guidance for the provision of holistic and occupation-focused interventions that would increase the relevance of hand therapy for Māori. These findings point a way forward and encourage hand therapists to recognise their place in incorporating Māori solutions for the delivery of culturally safe services. As noted by one participant:

> *Hand therapists are a great place to start [for implementation of solutions] because they are already there…Whenever you've got contact with the patient, you're the touch point, you're at the sticky end…you come face to face with the patient, you're in their personal space, you're part of the repair process with their body. That gives you more of a lever than anybody else might do*
>
> (Sophie)

The final chapter will bring the findings from the scoping review and qualitative study together and make recommendations for hand therapy practice and actions at wider organisation and health system levels. Suggestions are also posed for potential future research.

Chapter 7 Recommendations

7.1 Introduction

This chapter brings together the findings from the scoping review and qualitative study and makes recommendations for the delivery of culturally safe hand therapy. Although these recommendations are based on the experiences of Māori in a hand therapy context, they are likely to have relevance for other rehabilitation and health providers. Additionally, the potential benefits from some of the recommendations proposed are likely to extend to non-Māori.

7.2 Whakawhanaungatanga

It is integral that hand therapists make whakawhanaungatanga a priority during appointments and realise the benefits that accompany relationship building with Māori for patient participation and outcomes. Hand therapists may require assistance to alter the ways in which we develop rapport, including changes in thinking around professionalism and the formality of therapeutic relationships. Incorporating pepeha and mihi and finding common connection through people and place are encouraged (Levack et al., 2016; Pihema, 2022). Continuity of care and allowing time to form a connection, with space to answer questions and provide explanations, are aspects of whakawhanaungatanga that have been emphasised for Māori (Carlson et al., 2016; Masters-Awatere et al., 2023). Therefore, those involved in hand therapist scheduling need to create time for whakawhanaungatanga, particularly during the first appointment, where first impressions determine Māori engagement.

There are models to assist hand therapists to engage with Māori in culturally familiar ways, such as the Hui Process. The Hui Process provides guidance for clinical encounters based on four culturally familiar stages of a hui in Te Ao Māori. The first stage is mihimihi which is the initial greeting, followed by whakawhanaungatanga which is the second stage. The third stage is kaupapa - attending to the purpose of the clinical encounter. Finally, stage four is poroaki which is closing the hui (Lacey, 2011; Pitama et al., 2014). The Hui Process moves away from healthcare encounters that prioritise clinical assessment and treatment alone and places equal emphasis on greetings and connection through whakawhanaungatanga. The success of subsequent stages in the process are dependent on the first steps of mihimihi and whakawhanaungatanga. Research exploring the efficacy of the Hui Process has found improved confidence amongst clinicians for engaging in whakawhanaungatanga and use of te reo Māori, and an increase in clinicians advocating for Māori patients (Pitama et al., 2017).

7.3 Whānau-centred care

Hand therapy provision for Māori should be grounded in whānau-centred care. To enable whānau ora in hand therapy means moving beyond service provision for individuals and their nuclear family only, to consideration of extended whānau groups and communities and the integral role of whakapapa (Mpofu et al., 2021). Whānau-centred care must be based on authentic interactions, mutual respect, understanding, and a genuine willingness to enable whānau agency over the hand therapy process (Komene et al., 2023). Whānau should be recognised as a resource to hand therapy rehabilitation.

Hand therapists should be intentional about welcoming whānau by ensuring patients know they can bring support person(s), asking about whānau during assessments, and creating environments that facilitate whānau inclusion. Participants from the qualitative study suggested that hand therapists could add a note to appointment reminders that whānau are welcome and to call in the patient and their whānau together from waiting rooms. During appointments, it is recommended that hand therapists lean into collective language, or what is known as we-dentity, as an opening to provide education and promotion of wellbeing for whānau, as well as the individual (Wepa & Wilson, 2019). This recommendation is made in recognition that whānau knowledge is crucial to support the health and healing of that whānau (Hopkirk & Wilson, 2014).

7.4 Clinical spaces that manaaki

Manaakitanga is a Te Ao Māori concept that speaks to concern for others and the protection of mana through acts of generosity, kindness, and support (Mead, 2016; Reweti, 2023). It is recommended that hand therapy services look to redesign clinical spaces that reflect the hospitality of manaakitanga by cultivating welcoming, warm, and relaxed environments that centre relationships and the comfort of others. Increasing comfort is particularly important for Māori as they tend to be apprehensive about attending health services as they expect a negative experience and one reason for this expectation is the likelihood of encountering an unwelcoming environment (Masters-Awatere et al., 2023).

The importance of a warm welcome and the wairua of a clinical space in forming first impressions was emphasised in both the qualitative study and the scoping review. The key factor determining the warmth of a welcome is staff behaviour and attitude. Hand therapists have a responsibility to make an extra effort when welcoming Māori as the consequences of disengaging from rehabilitation can have long-term implications for function and quality of life (Kayes et al., 2022). Positive and relaxed staff interactions were observed by participants and conveyed a hand therapy clinic that was an uplifting, healing space for Māori. Therefore, an important consideration for employers is the promotion of positive working environments as this filters through to patient experience level.

The design of the physical clinic space also plays a role in manaakitanga. Casual clinical spaces put Māori at ease and can be achieved through placement of soft furnishings and provision of kai or beverages. Providing clear directions, instructions for parking, and making space for whānau in waiting rooms and treatment areas would be beneficial. Of particular concern to Māori is reducing the likelihood of instances of whakamā due to issues of physical access. Universal design considerations – designing environments and services that cater to the diverse access needs of people to the greatest extent possible, could help to address physical access concerns for patients and different generations of whānau (Forster et al., 2021).

Clinical spaces should also look to include aspects of te taiao where possible. This research found that connecting with the natural environment promoted wellbeing for Māori undergoing rehabilitation. Visual elements of te taiao such as pot plants served to take the edge off the sterile feel of a clinic. It would be worthwhile considering the facilitation of hand therapy through engagement in activities outdoors to enhance the innate Te Ao Māori connection between wellbeing, whenua, and te taiao (Marques et al., 2023). This consideration may have additional value in an urban context such as hand therapy clinics in Tāmaki Makaurau.

7.5 Whakamana

Hand therapists need to increase their awareness of the role they play in empowering Māori during rehabilitation. Flexibility of approach should be offered as part of hand therapy, enabling choice and empowering Māori to be Māori as guided by them (Hopkirk & Wilson, 2014). Hand therapists must challenge assumptions that all people are armed with health literacy to navigate the health system unassisted. Instead, hand therapists need to be upfront about options available and initiate the sharing of relevant information as Māori are less likely to ask for it (Graham & Masters-Awatere, 2020; Wepa & Wilson, 2019). From the qualitative study, the hand therapists approach helped participants to realise their own mana for recovery in moments of vulnerability. Through the provision of explanations and guidance, hand therapists enabled participants to recognise the skills and abilities within themselves to achieve their goals and live well following their hand injury.

Adopting a strength-based approach to hand therapy is essential to combat the deficit framing that so often accompanies descriptions of Māori in health (Wild et al., 2021). Māori are not a community waiting passively for health interventions but are actively seeking to recover and be well (Reweti, 2023). This proactive approach to health was reflected in the scoping review and qualitative study themes. A strength-based approach in hand therapy would encourage collaboration in goal setting and allowing individuals and whānau to identify challenges and determine their own goals.

7.6 Hauora practice models

Theoretical models are regularly used by hand therapists to guide practice and determine priorities of care. Participants from both the scoping review and qualitative study highly valued being viewed a whole person with emotions and wairua, with whānau roles, and with goals to return to occupations that contribute to their identity and wellbeing. In the context of this research, several models are suggested as being helpful for informing change in the way hand therapy is provided for Māori patients.

The first group of models are the hauora Māori models outlined in 6.5. These models are helpful because they capture Te Ao Māori perspectives of holism in wellbeing. As with many concepts from Te Ao Māori, the meaning of hauora stretches beyond what is commonly used to describe health, to a term that represents a holistic view of all the vital elements that contribute to mauri ora (Reweti, 2023). Narratives from the interviews highlighted that hand therapists did not consistently attend to the wellbeing of whānau or wairua. Hauora models would assist in validating these dimensions of health and allow space for Māori to express these parts of themselves in a hand therapy space.

One example of a hauora model that could help to frame hand therapy practice is the Meihana Model. The Meihana Model is designed to guide culturally and contextually relevant clinical assessments with Māori (Pitama et al., 2014). The Meihana Model depicts a waka hourua that connects the hauora of patient and whānau. Care for the whole person and whānau collective was appreciated by participants of both the scoping review and qualitative study. If the Meihana Model was adopted, the role of the hand therapist would be to get onto the waka and become part of the whānau support network for the time required to navigate towards hauora. Suggested solutions from this research encourage hand therapists to have more in-depth conversations with Māori patients about whānau, wairuatanga, emotional and cultural wellbeing. The Meihana model incorporates the contextual, historical, and cultural factors that influence the journey of the waka. Designing initial assessments and allowing time for such explorations would be a valuable consideration for hand therapy practice. The Meihana Model and Hui Process, discussed in 7.2, can be applied together in health encounters (Pitama et al., 2017).

The second group of models that could enhance hand therapy practice for Māori are occupational therapy models. Occupational therapy practice models have elements in common with hauora Māori approaches and therefore these models provide a platform from which to advocate for culturally safe practice (Meechan et al., 2024). Occupational therapy models bring a broad understanding of hauora. These models include understandings of holism that include the view that people and health are shaped and determined by occupational participation (Egan & Restall, 2022a). Many participants in this research were uplifted when they were recognised by clinicians as more than a patient with a diagnosis and wanted to focus their recovery on occupations that were important to them. As discussed in Chapter 6 models such as the CanMOP and COTIPP have relevance for working with Māori in Aotearoa hand therapy contexts. The CanMOP would assist hand therapists to consider the patient and whānau in the context of Aotearoa's colonial history because it gives heed to the influence of history and context on people's ability to engage in meaningful occupations (Egan & Restall, 2022b). The COTIPP reinforces the notion that patients are active participants in the therapeutic process. The COTIPP encourages clinicians to take time to explain and collaborate with their patients, something that was hugely appreciated by participants from the scoping review and qualitative study and mirrors Māori concepts of whakawhanaungatanga and whakawhiti kōrero (Komene et al., 2023; Wilson et al., 2022).

Hand therapists need to be afforded the opportunity to deliver hauora approaches to care. Hand therapists would require adequate time to form connections, explore holistic needs, and provide adequate support. At present, there are additional demands on hand therapists' time to advocate for different services for their patients and complete paperwork to seek further required treatments. Hands therapists, organisations, and the health system need to recognise the benefits extended to all clientele from the incorporating wraparound and holistic models of care. Because a wraparound approach is symbiotic across cultures, it recognises the complexities of health and wellbeing that are inherently human rather than culturally specific (Pene et al., 2023). Service delivery and funding models must align to reflect this need.

7.7 Te Ao Māori inclusion

Culture needs to feature as part of hand therapy. Appropriate inclusion of te reo Māori and tikanga is a sign of recognition and regard for tangata whenua (Opai, 2021). Qualitative study participants suggested that Te Ao Māori needs to filter through all elements of a hand therapy service to show whole-hearted engagement. In incorporating hauora models, as previously discussed, hand therapists need to collect accurate ethnicity data and ask questions about culture and how patients would like it to feature in their hand therapy journey. Designing initial assessments and documentation templates to include culture, whānau ora, and other health determinants may assist in guiding hand therapists in these discussions.

As shown in the qualitative study a little goes a long way for cultural inclusion and creating cultural connections for Māori. Recommended actions include greeting in te reo Māori, offering a karakia, visuals and art, and hand therapists offering their pepeha either verbally or having it visible on the wall in poster format. Hand therapists should appreciate the importance of tikanga and recognise that including tikanga offers an opportunity for cultural connections that are essential for Māori wellbeing. In offering tikanga, hand therapists need to be prepared for the variety of responses that may arise. There can be an element of cultural shock when Māori are offered something that is different to what is expected. Underlying reasons for this shock include whakamā regarding their personal knowledge of tikanga having grown up away from Te Ao Māori or declining tikanga to avoid causing discomfort to the hand therapist (McLachlan et al., 2017; Wepa & Wilson, 2019). In situations like these, hand therapists must avoid intensifying a patient's whakamā or responding to a declined offer with a defensive attitude (Opai, 2021). Hand therapists need to persevere, make offers consistently, and take opportunities to enhance their own learning about tikanga. Māori can then come to expect Te Ao Māori to feature and tikanga in hand therapy can be normalised.

Hand therapists should recognise the opportunities to interweave culturally relevant interventions and treatments, within relevant contexts. Hand therapy could provide meaningful opportunities to engage in occupations that secure cultural identity (Reweti, 2023). Incorporating activities such as kapa haka, mahi harakeke, making and using poi, kete and taonga, and facilitating treatment within te taiao would have both therapeutic and cultural connection benefits within hand therapy settings (Hollands et al., 2015; Schlötjes & Smith, 2022). Group interventions or wānanga would also be a culturally recognisable approach to hand therapy provision. Hands therapists could provide collective education and therapy for patients and whānau with similar diagnoses, such as carpal tunnel syndrome.

Hand therapists should also play a role in promoting rongoā Māori as a treatment option, alongside other regularly offered interventions such as acupuncture. It would be beneficial for hand therapists to create connections with tohunga rongoā who are funded through ACC or can be accessed locally through iwi or hauora Māori services. ACC also have a list of available practitioners that hand therapists can share with patients (Accident Compensation Corporation, 2024). Participants also suggested including locally sourced and produced rākau rongoā ointments or balms for use during hand therapy treatment.

7.8 Kotahitanga

Hand therapists should look to have a community presence and make their services known to Māori. Looking beyond the clinic to form community links and provide health interventions at a community level would lend itself to hand therapy practice that embodies the essence of hauora and haumaru.

Participants from the scoping review and qualitative study struggled with the complexities of navigating hand therapy and other health services. One-way to create connections between health services would be through the setup of communities of practice. Communities of practice are groups of clinicians who share common concerns or wish to deepen their knowledge and expertise in an area they are passionate about by interacting on an ongoing basis (Wynn et al., 2023). Hand therapy services could join with other health and hauora service providers and work together to increase awareness of issues that impact of the health of Māori in their community and explore how they could collectively address those issues. Collective health interactions that may benefit Māori include health providers working together to deliver cohesive, easy to access services, through the formation of health hubs or delivering telehealth, mobile and home-based services (Beks et al., 2020; Wikaire et al., 2022). The community of practice could also be proactive as a group at council and governance levels and in working alongside local Māori groups in addressing issues related to Māori health determinants and access needs such as transport and funding (Masters-Awatere et al., 2023).

It has been noted that health awareness campaigns tend to target diseases that are more common amongst Pākehā (Walker et al., 2023). As such, hand therapists have a role to play in promoting their field for those who suffer injuries most. Participants from the qualitative study found it challenging to envision the best ways to promote hand therapy amongst Māori. Hand therapists could explore provision of education within the community by hosting wānanga at schools, marae, and libraries. Larger agencies, such as ACC, also play a role in spreading awareness of services such as hand therapy through health promotion campaigns. Cultural and sporting events where hand injuries are likely to occur were suggested by qualitative study participants as appropriate places to spread awareness, such as kapa haka competitions. Awareness of hand therapy could be spread through creation of connections with local hapū, iwi, and hauora services. It would be particularly relevant to offer support and assistance to Māori whānau and community health initiatives that are already happening (Harding et al., 2021; Reweti, 2023).

7.9 Kawa whakaruruhau

Development of a culturally safe allied health and hand therapy workforce should be a priority for the tertiary education sector and the health system. As the findings from this research have shown, tokenistic gestures for cultural inclusion can cause suspicion and disengagement for Māori. Qualitative study participants reported that they could sense whether a hand therapist was culturally safe in their wairua and approach. Whole-hearted, genuine engagement with Te Ao Māori delivered through a cultural safety lens would filter through all that hand therapists do at practice level.

Aotearoa's rehabilitation practice and policy is showing increased recognition of cultural safety in allied health professional competencies and the recent publication of an ACC (2023) Kawa Whakaruruhau Policy (Occupational Therapy Board of New Zealand, 2022; Physiotherapy Board of New Zealand, 2018). However, it has been found that professional competencies in Aotearoa, neither provide standardised definitions of culturally competent or safe practice nor uphold Te Tiriti obligations (Came et al., 2021; Heke et al., 2019). Accountability is an essential component of culturally safe practice. Nonetheless, there should be a move away from one-off, tick box cultural competencies and training alone, in recognition that culturally safety is a continuum (Curtis et al., 2019). Alongside competency frameworks, health educators and workplaces should foster continuous growth through ongoing self-reflective practice and develop clinicians who are aware of historical and contextual influences on their encounters with Māori (Kurtz et al., 2018).

Hand therapist numbers recorded by ethnicity are not available for Aotearoa (Timmins et al., 2023). Underpinning health education and workplace systems in cultural safety may help to address the allied health workforce disparities that exist between Māori and non-Māori clinician numbers. Creating a hand therapy workforce who can support Māori colleagues in delivery of services that involve whānau, consider holistic aspects of health, and uphold Te Ao Māori and tikanga is an integral part of developing and sustaining the Māori health workforce. In this way hand therapists can alleviate the cultural expectation and burden that many Māori health professionals feel in the workplace (Hunter & Cook, 2020).

7.10 Research

Several of the topics raised in the scoping review and qualitative study would benefit from further research. Increased exploration and in-depth analysis of the experiences of physical rehabilitation unique to Māori could assist in furthering the culturally safe delivery of services. Collecting accurate ethnicity data may be useful to better understand equality of care provision and equity of hand therapy outcomes, including access rates and incidence of hand injuries and upper limb conditions amongst Māori. There would be value in examining the possibilities of incorporating rongoā Māori alongside allied health interventions. Research into the applicability of international best practice models, such as adaptations of the CanMOP in an Aotearoa context, would be worthwhile. Co-design of health provision and promotion strategies, including research exploring ways to inform Māori communities about services such as hand therapy, that fit within co-governance and Te Tiriti based frameworks could assist in moves towards decolonisation of the health system.

7.11 Conclusion

The recommendations in this chapter propose changes at practice and policy level. The recommendations require modifications in thinking and decolonisation of the health system. Focus must be changed from universal, needs-based healthcare and prioritisation of the amelioration of symptoms, to unique, diverse, holistic hauora approaches (McLachlan et al., 2017). In this way, Māori whānau would have the option to more readily access hauora services and have their cultural needs met by clinicians in all settings. The gap between cultural safety policy rhetoric and practice would be closed and the health system would advocate for the provision of culturally safe hand therapy services that shelter hauora, a most precious Māori taonga.

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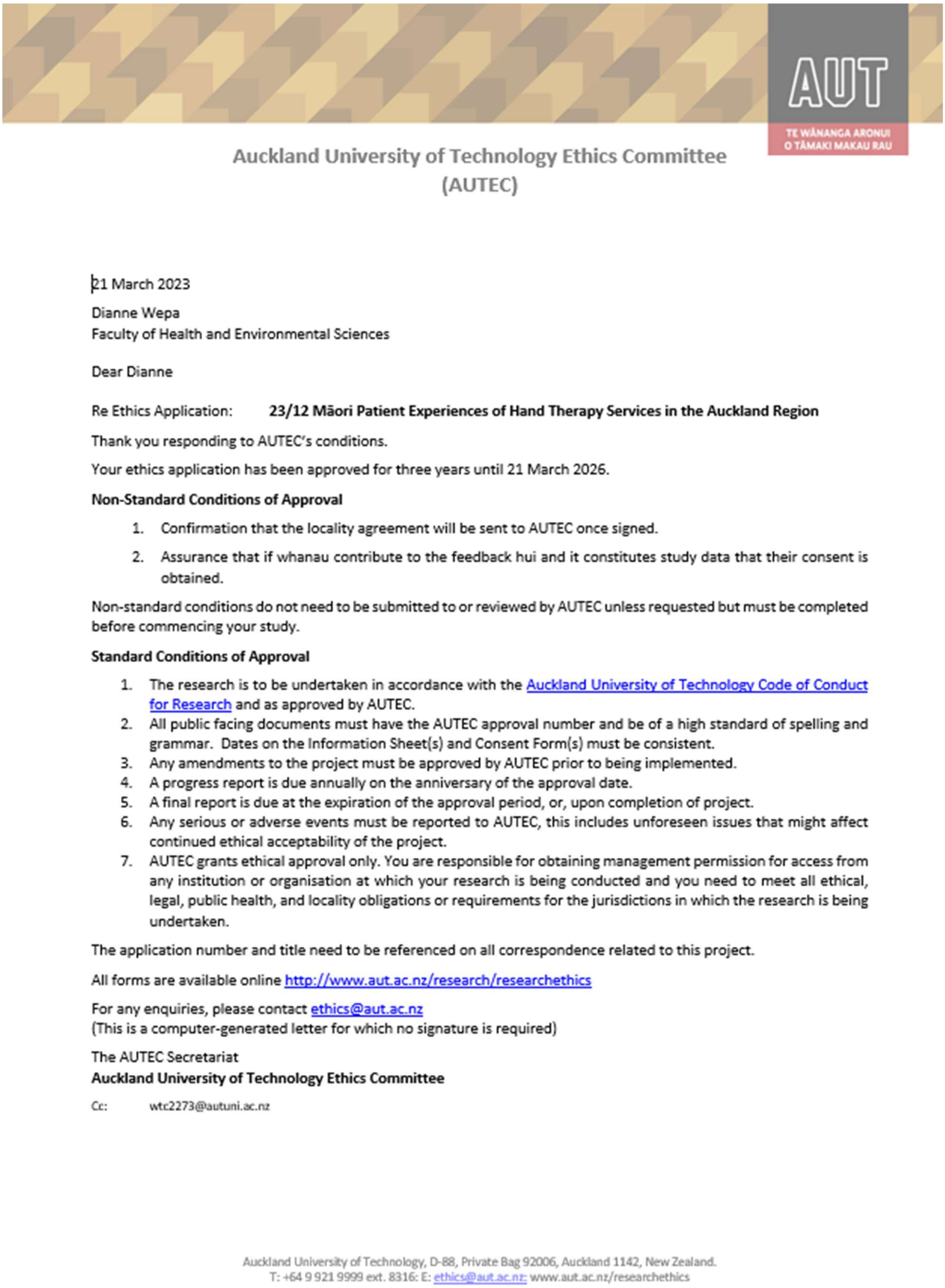
Appendices

Appendix A

AUTEC Approval Letter



Auckland University of Technology Ethics Committee
(AUTEC)

21 March 2023

Dianne Wepa
Faculty of Health and Environmental Sciences

Dear Dianne

Re Ethics Application: **23/12 Māori Patient Experiences of Hand Therapy Services in the Auckland Region**

Thank you responding to AUTEC's conditions.

Your ethics application has been approved for three years until 21 March 2026.

Non-Standard Conditions of Approval

1. Confirmation that the locality agreement will be sent to AUTEC once signed.
2. Assurance that if whanau contribute to the feedback hui and it constitutes study data that their consent is obtained.

Non-standard conditions do not need to be submitted to or reviewed by AUTEC unless requested but must be completed before commencing your study.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC.
2. All public facing documents must have the AUTEC approval number and be of a high standard of spelling and grammar. Dates on the Information Sheet(s) and Consent Form(s) must be consistent.
3. Any amendments to the project must be approved by AUTEC prior to being implemented.
4. A progress report is due annually on the anniversary of the approval date.
5. A final report is due at the expiration of the approval period, or, upon completion of project.
6. Any serious or adverse events must be reported to AUTEC, this includes unforeseen issues that might affect continued ethical acceptability of the project.
7. AUTEC grants ethical approval only. You are responsible for obtaining management permission for access from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

The application number and title need to be referenced on all correspondence related to this project.

All forms are available online http://www.aut.ac.nz/research/researchethics

For any enquiries, please contact ethics@aut.ac.nz
(This is a computer-generated letter for which no signature is required)

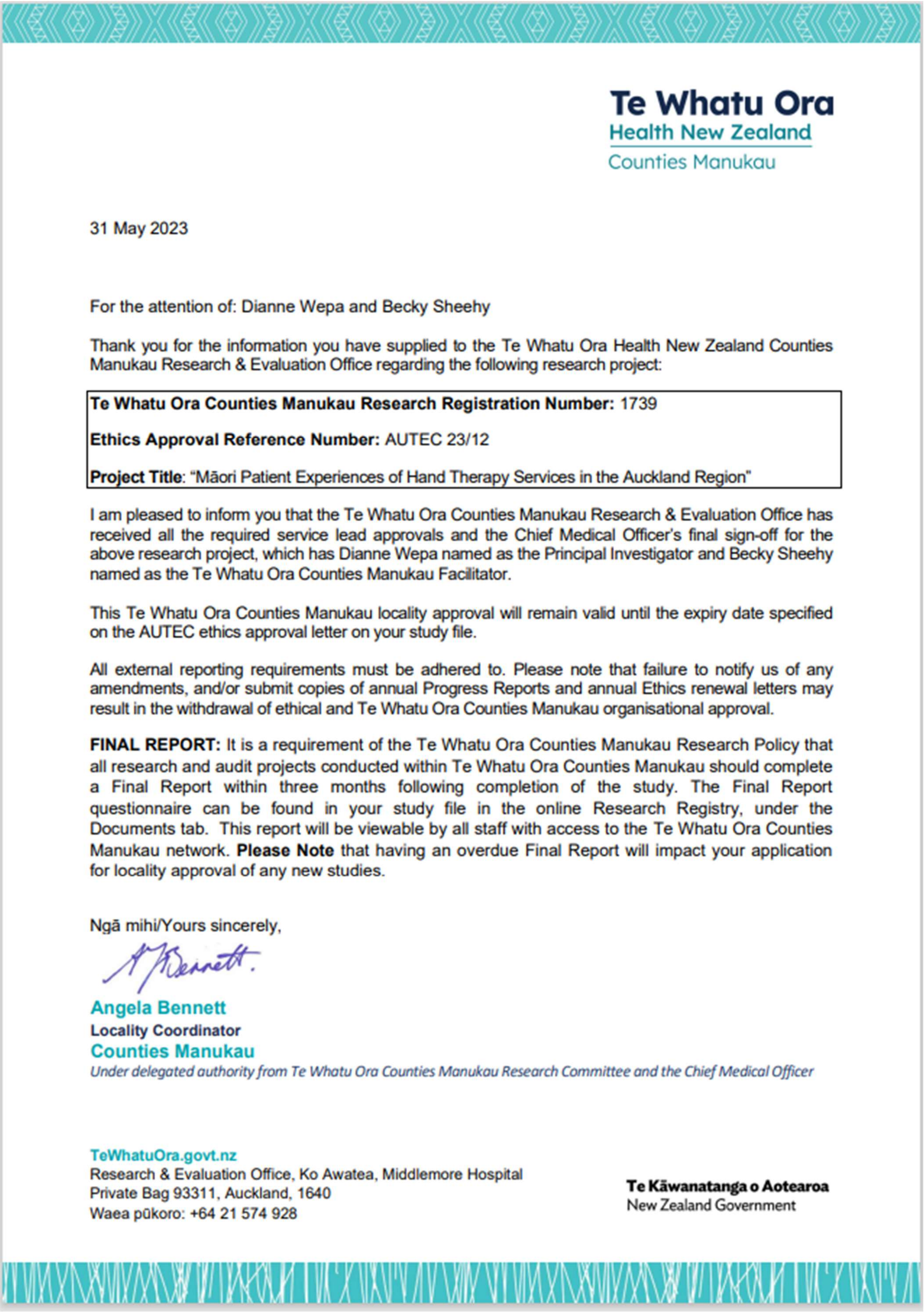
The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Cc: wtc2273@autuni.ac.nz

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

Appendix B

Counties Manukau Health Localities Approval Letter



Te Whatu Ora
Health New Zealand
Counties Manukau

31 May 2023

For the attention of: Dianne Wepa and Becky Sheehy

Thank you for the information you have supplied to the Te Whatu Ora Health New Zealand Counties Manukau Research & Evaluation Office regarding the following research project:

Te Whatu Ora Counties Manukau Research Registration Number: 1739

Ethics Approval Reference Number: AUTEC 23/12

Project Title: "Māori Patient Experiences of Hand Therapy Services in the Auckland Region"

I am pleased to inform you that the Te Whatu Ora Counties Manukau Research & Evaluation Office has received all the required service lead approvals and the Chief Medical Officer's final sign-off for the above research project, which has Dianne Wepa named as the Principal Investigator and Becky Sheehy named as the Te Whatu Ora Counties Manukau Facilitator.

This Te Whatu Ora Counties Manukau locality approval will remain valid until the expiry date specified on the AUTEC ethics approval letter on your study file.

All external reporting requirements must be adhered to. Please note that failure to notify us of any amendments, and/or submit copies of annual Progress Reports and annual Ethics renewal letters may result in the withdrawal of ethical and Te Whatu Ora Counties Manukau organisational approval.

FINAL REPORT: It is a requirement of the Te Whatu Ora Counties Manukau Research Policy that all research and audit projects conducted within Te Whatu Ora Counties Manukau should complete a Final Report within three months following completion of the study. The Final Report questionnaire can be found in your study file in the online Research Registry, under the Documents tab. This report will be viewable by all staff with access to the Te Whatu Ora Counties Manukau network. **Please Note** that having an overdue Final Report will impact your application for locality approval of any new studies.

Ngā mihi/Yours sincerely,

Angela Bennett
Locality Coordinator
Counties Manukau
Under delegated authority from Te Whatu Ora Counties Manukau Research Committee and the Chief Medical Officer

TeWhatuOra.govt.nz
Research & Evaluation Office, Ko Awatea, Middlemore Hospital
Private Bag 93311, Auckland, 1640
Waea pūkoro: +64 21 574 928

Te Kāwanatanga o Aotearoa
New Zealand Government

Appendix C

Grey Literature Sites Searched for Scoping Review

Website	URL
Google Scholar	https://scholar.google.com/
AUT Tuwhera (research repository)	https://tuwhera.aut.ac.nz/research-repository
ProQuest Dissertations & Theses Global	https://www.proquest.com
Māori Research Groups	https://tomaiora-research-group.blogs.auckland.ac.nz/# https://teatawhai.Māori.nz/ https://www.whakauae.co.nz/publications/journal-articles/7/ https://www.aut.ac.nz/phmhri/research-centres/taupua-waiora-centre-for-Māori-health-research https://www.katoa.net.nz/past-projects https://www.maramatanga.co.nz https://www.waikatotainui.ac.nz https://terauora.com https://www.otago.ac.nz/christchurch/departments/mihi/ https://www.otago.ac.nz/Māori-health-research/index.html https://www.massey.ac.nz/massey/learning/colleges.college-of-health/te-pumanawa-hauora/te-pumanawa-hauor_home.cfm https://shoreandwhariki.ac.nz https://www.waikato.ac.nz
Ministry of Health	https://www.health.govt.nz
Accident Compensation Corporation (ACC)	https://www.acc.co.nz/
Community & Public Health Te Mana Ora	https://www.cph.co.nz/
Hand Therapy New Zealand	https://handtherapy.org.nz/
Physiotherapy New Zealand	https://pnz.org.nz/
Occupational Therapy New Zealand	https://www.otnzwna.co.nz/
Index New Zealand	https://natlib.govt.nz/collections/a-z/index-new-zealand-innz
NZ Research	https://digitalnz.org/nzresearch

Appendix D

Images of Scoping Review Miro Board Used for Reflexive Thematic Analysis

Whānau

Whānau are losing time that could be spent supporting their loved one because they are managing cultural collisions in health settings
- The experience of whanau...

Whānau support is crucial to the recovery process
- The wairua first brings you...
- The experience of whanau...
- Nga whanau Maori wheak...
- I couldn't even do normal...
- Determining barriers and f...

Supporting whānau experiencing financial strain while their loved one is in rehab
- The experience of whanau...
- Nga whanau Maori wheak...

Whānau will work together to uphold tikanga in the rehab process
- using a maori model of he...
- The experience of whanau...

Whānau not in a position to provide the level of care needed
- The experience of whanau...

Whānau struggling to provide regular support due to physical distance from rehab facility
- The experience of whanau...

Whānau support enables mental and emotional wellbeing
- The experience of whanau...
- Nga whanau Maori wheak...

Health professionals need to look after whānau collective wellbeing
- using a maori model of he...
- The wairua first brings you...
- The experience of whanau...
- Nga whanau Maori wheak...
- I couldn't even do normal...

Whānau fulfil roles that those who are undergoing rehab cannot
- The experience of whanau...
- Nga whanau Maori wheak...

Whānau fill in gaps in communication with health professionals
- The experience of whanau...

Supporting whānau struggling to balance competing responsibilities while their loved one is in rehab
- The experience of whanau...
- Nga whanau Maori wheak...

Whānau are key to everything
- understanding the therap...
- The wairua first brings you...
- The experience of whanau...
- Nga whanau Maori wheak...
- I couldn't even do normal...
- Determining barriers and f...

Whānau act as informal care givers during the rehab journey
- The experience of whanau...
- Nga whanau Maori wheak...

Whānau provide support in a holistic way
- The experience of whanau...
- Nga whanau Maori wheak...

Health professionals identifying key decision makers within the whānau is important for collaboration during rehab
- understanding the therap...
- The experience of whanau...

Injury/condition impacts the whole whānau network
- The wairua first brings you...
- The experience of whanau...

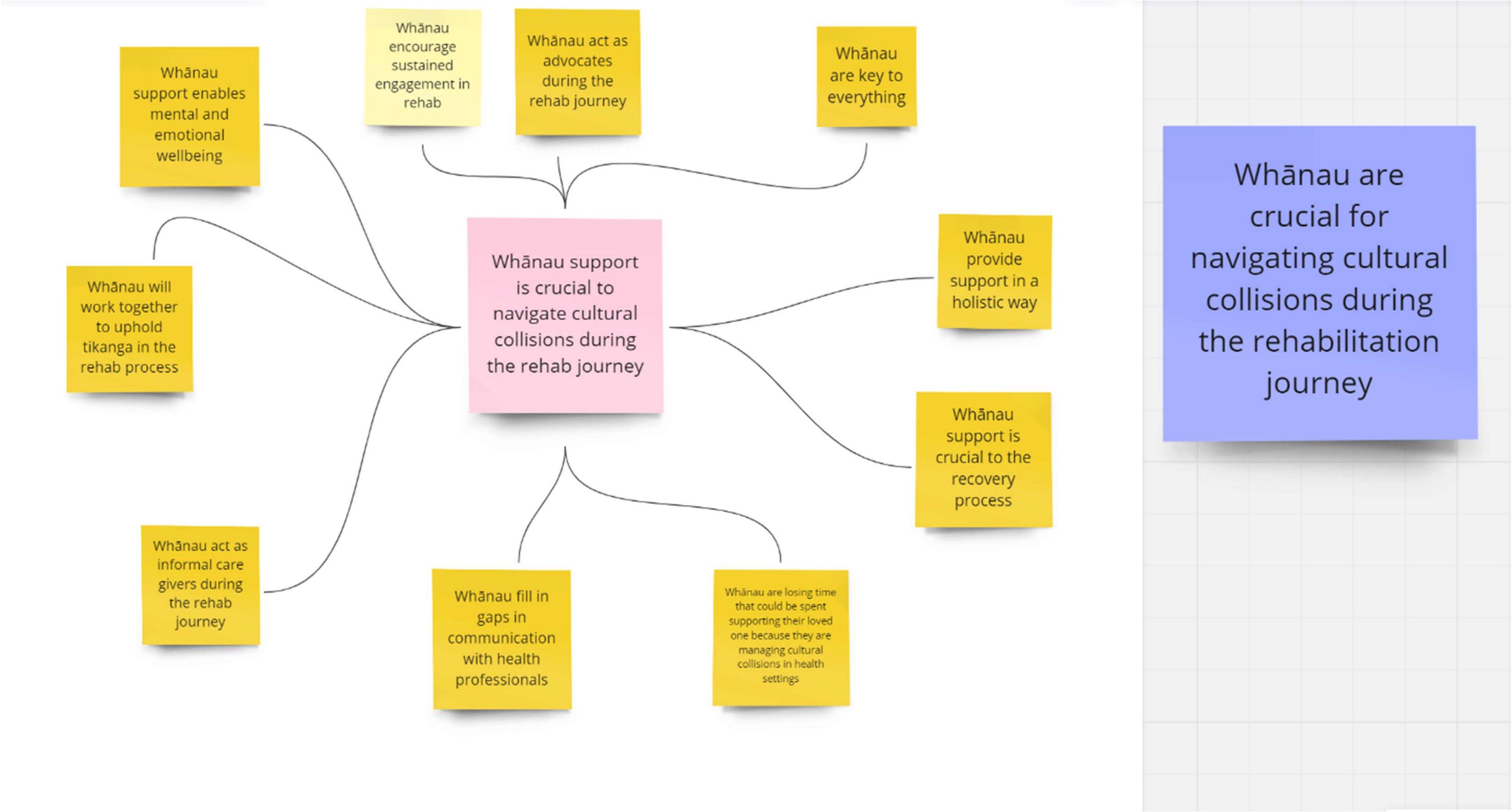
Involving whānau as part of the rehab team is essential
- using a maori model of he...
- understanding the therap...
- The wairua first brings you...
- The experience of whanau...
- Nga whanau Maori wheak...
- Disrupted mana and syste...

Non-Māori value independence over interdependence
- understanding the therap...
- The wairua first brings you...
- The experience of whanau...

Health professionals working as one with whānau to support the patient
- understanding the therap...
- The wairua first brings you...
- The experience of whanau...

Whānau act as advocates during the rehab journey
- understanding the therap...
- The experience of whanau...

Supporting whānau experiencing emotional and mental strain while their loved one is in rehab
- The experience of whanau...
- Nga whanau Maori wheak...
- I couldn't even do normal...



Whānau support is crucial to navigate cultural collisions during the rehab journey

Whānau support enables mental and emotional wellbeing

Whānau encourage sustained engagement in rehab

Whānau act as advocates during the rehab journey

Whānau are key to everything

Whānau will work together to uphold tikanga in the rehab process

Whānau provide support in a holistic way

Whānau support is crucial to the recovery process

Whānau act as informal care givers during the rehab journey

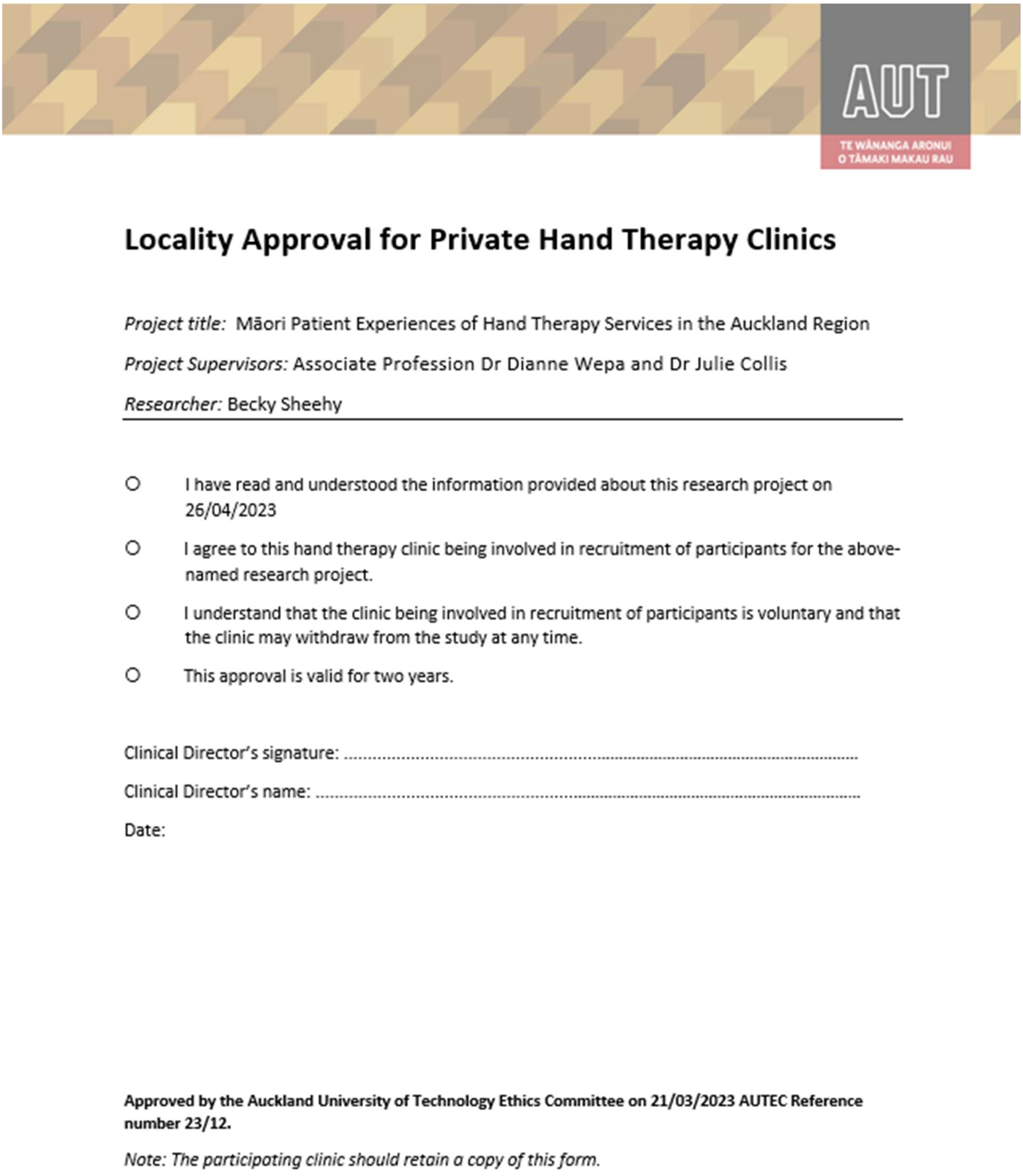
Whānau fill in gaps in communication with health professionals

Whānau are losing time that could be spent supporting their loved one because they are managing cultural collisions in health settings

Whānau are crucial for navigating cultural collisions during the rehabilitation journey

Appendix E

Locality Approval for Private Hand Therapy Clinics



Locality Approval for Private Hand Therapy Clinics

Project title: Māori Patient Experiences of Hand Therapy Services in the Auckland Region

Project Supervisors: Associate Profession Dr Dianne Wepa and Dr Julie Collis

Researcher: Becky Sheehy

○ I have read and understood the information provided about this research project on 26/04/2023

○ I agree to this hand therapy clinic being involved in recruitment of participants for the above-named research project.

○ I understand that the clinic being involved in recruitment of participants is voluntary and that the clinic may withdraw from the study at any time.

○ This approval is valid for two years.

Clinical Director's signature: ....

Clinical Director's name: ....

Date:

Approved by the Auckland University of Technology Ethics Committee on 21/03/2023 AUTEC Reference number 23/12.

Note: The participating clinic should retain a copy of this form.

Appendix F

Written Expression of Interest Form

Expression of Interest Form

Project title: Māori Patient Experiences of Hand Therapy Services in the Auckland Region
Project Supervisor: Dr. Dianne Wepa
Researcher: Becky Sheehy

○ I agree to being contacted to participate in the research project: Māori Patient experiences of Hand Therapy Services in the Auckland Region.

Name: ………………………………………………………………………………………………
Telephone:……………………………………………………………………………
Email:……………………………………………………………………………………

Best Contact Time (please tick one): ○ AM ○PM Time:………………………………

Once completed, please return this form to your hand therapist.

I will contact you in a few days to talk about and explain the study in more detail.

You can also contact me directly on 02108242244 or wtc2273@autuni.ac.nz

Signature:……………………………………………………………………………
Date:

To hand therapist: please send an electronic copy or photograph of this form to Becky Sheehy on 02108242244 or wtc2273@autuni.ac.nz and shred the hard copy of this form.

Approved by the Auckland University of Technology Ethics Committee on 21/03/2023 AUTEC Reference number 23/12

Appendix G

Qualitative Study Advertisement Poster

INVITATION TO PARTICIPATE

Tēnā koe.

You are invited to participate in a study about Māori patient experiences of hand therapy.

What is this research about?

The aim of this study is to learn about your experiences while being treated for your hand. I am specifically interested in your point of view as a person who identifies as Tangata Whenua/New Zealand Māori.

Who can participate?

Anyone aged 18 and above who identifies as Tangata Whenua/New Zealand Māori and has attended two or more hand therapy appointments in the last 6 months.

What is involved?

A 60 to 90 minute kōrero/interview to share your whakaaro/thoughts with me. Ko Becky Sheehy tōku ingoa. I am the primary researcher for this project. He Tangata Tiriti ahau. I am a Masters of Health Science student at AUT. On completion of the interview you will receive a koha of a $50 Prezzy voucher.

If you are interested and would like to find out more please:

Talk to your hand therapist

OR

Scan the QR code

OR

Contact me directly via email: wtc2273@autuni.ac.nz or phone/text: 02108242244

Approved by the Auckland University of Technology Ethics Committee 21/03/2023 .AUTEC Reference number 23/12.

Appendix H

Interview Guide

Theme	Questions
Warm up questions	*The first few questions I would like to ask you relate to how you came to be involved with hand therapy and what it was like for you when you first saw a hand therapist* What clinic are/were you attending? Can you tell me approximately how many appointments you have attended? When did you first see a hand therapist? Are you still going to hand therapy or has your treatment ended?
Introduction to hand therapy	Can you tell me about your hand(s) and what led to you becoming a hand therapy patient? How did you first hear about hand therapy? Who referred you to hand therapy? How did that happen? Were you aware of hand therapy before? Have any of your whānau been to see a hand therapist before?
First contact	What were your expectations of what hand therapy would be like? Can you describe your initial hand therapy appointment? How was it arranged? What were your first impressions of hand therapy? What were your thoughts/feelings during or after your first appointment?
Access to	*Now I would like to discuss the practicalities of attending hand therapy* Can you tell me how your appointments were arranged? How do/did these appointments fit in with you and your whānau routines? Did you miss any appointments? Why? What was the process for managing a missed appointment with the hand therapy clinic? What are your thoughts about how often and how long your appointments are/were? Who was present for your appointments? How was your experience dealing with ACC?
Physical Clinic Environment	What do you think about the clinic environment? Was there anything in particular that you noticed about the physical clinical environment? How did you feel in the clinic environment?

Relationship with hand therapist	Did you see one or more different therapists? Can you describe your relationship with your hand therapist? How did your hand therapist make you feel during appointments? How did you feel about the communication with your hand therapist? Do you feel that things were explained well in a way that was easy to understand? Do you feel you could express yourself during appointments? Talk about concerns and ask questions? Did you feel heard/listened to? Did you have interactions with any other staff at the clinic? Who were they? Do you have anything to say about these interactions? How would you compare this relationship to relationships you've had with other health professionals?
Cultural	*The next few questions I will be asking will be about the cultural aspects of attending hand therapy as a Māori patient.* Do you feel that being Māori influenced your hand therapy? In what ways? Do you feel there was recognition of your being Māori? Do/did you feel culturally safe during your hand therapy? Do you feel there was a cultural connection with your hand therapist? Often Māori patients describe instances of discrimination and racism when attending appointments at healthcare facilities – have there been instances where this has been an issue for you during your hand therapy? In what ways was ethnicity or culture a feature during your hand therapy? In what ways did tikanga or elements of Te Ao Māori feature in your hand therapy? Did you observe other patients around you being treated differently? How would you respond if elements of Te Ao Māori/tikanga were offered as part of hand therapy? Have you experienced a health service where you felt Te Ao Māori was incorporated well? Tell me more about that
Outcome	*The next set of questions will be around the outcome of your hand therapy and what you have gotten out of it* Overall, how has it been to see a hand therapist for your hand issue? Do you feel it was worthwhile to attend hand therapy? Did you end up with the outcome you were expecting? Would you recommend seeing a hand therapist to a friend or your whānau? Did you feel part of the process/that you could guide the process? What do you think about the way your hand therapy treatment ended? (*ask if has been discharged*)

Solution-focused	*Now we are coming to the end of the interview I would like to ask your thoughts and suggestions for hand therapy services* Before you mentioned X was an issue – would you be able to suggest any changes/improvements to address this/resolve this? Before you described liking Y about hand therapy – could you give me more detail about why you liked it? Do you think more could be done to enhance the experience of being a hand therapy patient from a Māori point of view? What would you suggest? What might enhance your experience of hand therapy as a Māori patient? What are the things you remember most about being a hand therapy patient? What were the best things? What were the things you felt were missing? How would you suggest hand therapists engage in genuine, non-tokenistic ways?

Beginning the Interview:

- Greeting
- Kai (before/after interview, guided by participant)
- Offer pepeha and karakia
- Whakawhanaungatanga
- Introduce self and study
- Advised participant I may take notes during the interview
- Informed consent form
- Select pseudonym
- Introduce interview
- Commence interview, start recording

Ending the Interview:

- Is there anything more you would like to add/say?
- Thank you
- Explain what happens next
- Koha
- Karakia
- Stop recording and check recording

Note. Yellow highlighted text show amendments made in later iterations of the guide as interviews progressed.

Appendix I

Printed Karakia for Interviews

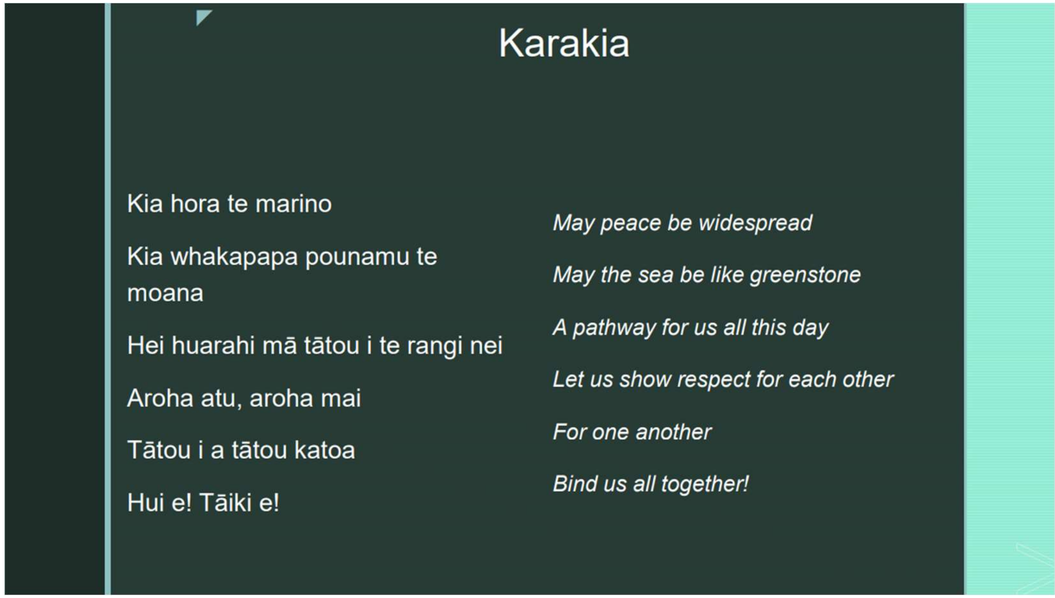
Karakia

Mā te whakapono	*By believing and trusting*
Mā te tūmanako	*By having faith and hope*
Mā te titiro	*By looking and searching*
Mā te whakarongo	*By listening and hearing*
Mā te mahi tahi	*By working and striving together*
Mā te whakamomori	*By sheer desire and determination*
Mā te aroha	*By all being done with compassion*
Ka taea e mātou	*We will succeed*

Karakia

Tēnei te whakamoemiti
Mō ngā ringawera i whakaritea i ēnei kai
Mai i te rangi
Mai i te whenua
Mai i te taiao
Mauri ora!

We give thanks to the hands who prepared the food
From the sky
From the land
From the environment
Good health!



Karakia

Kia hora te marino	*May peace be widespread*
Kia whakapapa pounamu te moana	*May the sea be like greenstone*
Hei huarahi mā tātou i te rangi nei	*A pathway for us all this day*
Aroha atu, aroha mai	*Let us show respect for each other*
Tātou i a tātou katoa	*For one another*
Hui e! Tāiki e!	*Bind us all together!*

Appendix J

Participant Information Sheet

Participant Information Sheet

Date Information Sheet Produced: 21/03/2023

Project Title Māori Patient Experiences of Hand Therapy Services in the Auckland Region

Tōku Pepeha

I te taha o tōku pāpā ko Cooliboy te maunga, ko Bandon te awa
I te taha o tōku māmā ko Killiney te maunga, ko Liffey te awa
Ko Ngāti Airangi tōku iwi
Nō Dublin ahau
He Tangata Tiriti ahau
Kei Tāmaki Makaurau tōku kāinga ināianei
He kai whakaora ringaringa tōku turanga mahi
Ko Sheehy tōku whānau
Ko Becky tōku ingoa

Tēnā koe. My name is Becky Sheehy. I am a student at Auckland University of Technology completing a Masters of Health Science. I currently work as an occupational therapist and registered hand therapist in South Auckland. I work with many patients who have issues with their hands that affect their daily lives. As professionals we do not know what it is like to be a patient and I would really like to know more about what that is like for you. I am particularly interested in your whakaaro/thoughts as a person who identifies as Tangata Whenua/New Zealand Māori.

An Invitation

I am inviting you to take part in a study about your experiences of being a hand therapy patient from a Māori perspective. Taking part in this study will involve a 60 to 90 minute kōrero/interview.

What is the purpose of this research?

The aim of this study is to learn about your experiences while being treated for your hand condition. I would like to hear about what it has been like for you to be a hand therapy patient.

Some of the topics I would be interested in discussing include practical aspects of attending hand therapy, your relationships with hand therapy staff and the treatment you have been receiving in the clinic you have been attending. We may also discuss some wider aspects of the health system that have affected your hand therapy journey. I am interested in discussing how you think hand therapy services can be improved from a Māori perspective. We know there is a history of healthcare in Aotearoa falling short when it comes to meeting the needs of Māori patients because services have been designed from a Pākehā point of view. We are aware that often Māori have negative experiences when engaging with health care services. I would like to have a kōrero/discussion about these types of issues in relation to your hand therapy treatment.

Your opinions and ideas are important in having an impact on the hand therapy services you receive so that much needed change can occur. Understanding your experiences will help us to improve the quality of hand therapy services so that they are more welcoming, responsive and culturally safe for Māori.

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

You are being asked to take part in this study because you are or have received hand therapy at a clinic in Auckland. I am asking people who identify as Tangata Whenua/New Zealand Māori and are over 18 years old. I am asking people who have attended at least 2 hand therapy appointments in the past 6 months.

You have either identified yourself as being someone who meets the criteria for being involved in this study and expressed interest to be involved in the study directly or your hand therapists recognized you as someone who meets the criteria for being involved in this study and they have asked if you would like to express interest in being involved.

How do I agree to participate in this research?

You have expressed interest to be involved in this study by contacting me directly via phone, email or by scanning the QR code on the study advertisement poster and providing your details or your hand therapist has asked you to complete a form that states you are happy to be contacted.

You expressed an interest in being involved in the study and now that we have discussed the research project over the telephone, I am sending you this information sheet. This information sheet provides more detailed information for you to consider before agreeing to take part in an interview. You will have until the interview time we have arranged to decide if you would like to take part. You can contact me at any point with any concerns or questions you may have.

I will meet you on the time and date we have arranged for the interview, at a location you have chosen. Before the interview takes place, we will go through this information sheet together. I will then ask you to confirm whether you would like to proceed with the interview. If you still agree to participate in the interview, I will ask you to sign a consent form. If you do not wish to go ahead with the interview it will not take place and our meeting will end.

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

What will happen in this research?

The interview with me will last between 60 to 90 minutes.

You have the option of completing the interview kanohi-ki-te-kanohi/face to face, over the telephone or by videocall.

If the interview is kanohi-ki-te-kanohi/face to face, it will be arranged at a time and place that is most convenient for you. This place can be your home or a public place such as a café or park.

If the interview is over the telephone, it will be arranged at a time that suits you. You will need a reliable landline or mobile phone.

If the interview is by videocall, it will be arranged at a time that suits you. I will send you an email with a link to join a videocall via Microsoft Teams. You will need a device that will allow video call, this can be your mobile phone, a tablet or a computer with a camera. You will also need a reliable internet connection.

You can have a whānau member present for the interview if you wish.

You can request a Te Reo Māori interpreter if you wish and I will arrange this for you (free of charge).

Before we begin the interview, I will ask you to sign a consent form that says you understand what is involved in being part of this study and you agree to being interviewed. You will be asked for verbal consent if the interview is over the phone or videocall.

The interview will be audio-recorded. At a later stage I will transcribe (write out) the interview word for word. I will then analyse the information you have shared during the interview and compare it with information shared by other participants.

The results of the interviews will be written up as part of my Masters of Health Science thesis. The findings of this research may be used for academic publications and presentations.

What are the discomforts and risks?

This research should not cause you any discomfort or pose any risks to you. It will not affect your hand therapy treatment. During the interview you do not have to answer a question if you do not want to and you can share as much or as little information as you feel comfortable doing.

How will these discomforts and risks be alleviated?

You can have a whānau member present for the interview if you wish. Before and during the interview I will remind you that you do not have to share or say anything that you do not feel comfortable about. You can stop the interview at any time.

What are the benefits?

This study will provide hand therapists and hand therapy services, as well as other healthcare services with information that can help them to address issues that are of importance to Māori patients.

This research will benefit me as the primary researcher as it will contribute to the completion of a Master of Health Science qualification.

Who is funding this research?

Hand Therapy New Zealand and Te Whatu Ora Counties Manukau are providing financial support for the completion of this research project.

How will my privacy be protected?

All of the information collected during the interviews will be kept private and confidential. You interview recording and transcript will be stored on a password protected device. This research is separate to your hand therapy and I will not be talking to your therapist about the information that you share. The only people who will have access to your information are the researchers involved in this project – Becky Sheehy and my Masters of Health Science supervisors Associate Professor Dr Dianne Wepa and Dr Julie Collis. The interview transcripts will not be stored with any forms that you have signed. All of the data collected will be held for 10 years on a password protected device and then destroyed.

When the results are written up for my Masters of Health Science thesis or if they are used for academic publications or presentations there will be no identifying information. These documents may use quotes or statements from your interviews but these will not have your name attached. Before the interview, you will be offered the opportunity to pick a pseudonym (a name that is not your own) for confidentiality of the information you share.

What are the costs of participating in this research?

There are no costs to you for participating in this research. The interview will take between 60 to 90 minutes. We will arrange a time and place that suits you. A koha of a $50 Prezzy voucher will be provided to all participants at completion of the interview.

What opportunity do I have to consider this invitation?

You have until the time of your interview to consider this invitation. You can contact me at any time with concerns or questions you or your whānau may have.

Will I receive feedback on the results of this research?

When I ask for your consent prior to the interview I will ask of you would like to attend a videocall hui with me to discuss the interview findings at a later date. This hui will take place once all of the participants have been interviewed and the intial stages of analysis have been completed. The purpose of this hui is to share the initial results of the interviews with participants and their whānau for discussion and feedback. I would like participants and their whānau to be involved in the analysis stage of the research to ensure the results are in keeping with their experiences of hand therapy. If you are interested in attending this hui I will send you an invitation via email or text with a link to join closer to the time it is due to take place.

Once the research is completed you can choose to receive a written summary of the overall results. If the results of this study are published in a journal article, a copy will be made available to you and your whānau.

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, Associate Professor Dr Dianne Wepa, dianne.wepa@aut.ac.nz)

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, *ethics@aut.ac.nz* , (+649) 921 9999 ext 6038.

Whom do I contact for further information about this research?

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

Researcher Contact Details: *Becky Sheehy, wtc2273@autuni.ac.nz, 02108242244*

Project Supervisor Contact Details: *Associate Professor Dr Dianne Wepa, dianne.wepa@aut.ac.nz*

Approved by the Auckland University of Technology Ethics Committee on 21/03/2023 AUTEC Reference number 23/12

Appendix K

Consent Forms

AUT
TE WĀNANGA ARONUI
O TĀMAKI MAKAU RAU

Consent Form for Face to Face Interview

Project title:	Māori Patient Experiences of Hand Therapy Services in the Auckland Region
Project Supervisor:	Associate Profession Dr Dianne Wepa
Researcher:	Becky Sheehy

○ I have read and understood the information provided about this research project in the Information Sheet dated ____________

○ I have had an opportunity to ask questions and to have them answered.

○ I agree to take part in a 60 to 90 minute interview.

○ I understand that notes will be taken during the interviews and that the interview will be audio-recorded.

○ I have been offered an opportunity for a Te Reo Māori interpreter to be present for the interview.

○ I have been offered an opportunity to have whānau or a support person present for the interview.

○ I understand that the interview will be transcribed (written down) after the interview.

○ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.

○ I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.

○ I agree to take part in this research.

○ I wish to be invited to attend an online hui about the research findings (please tick one): Yes○ No○

○ I wish to receive a written summary of the research results (please tick one): Yes○ No○

Participant's signature:...

Participant's name: ....

Participant's Contact Details:

Telephone ....

Email ....

Address

....

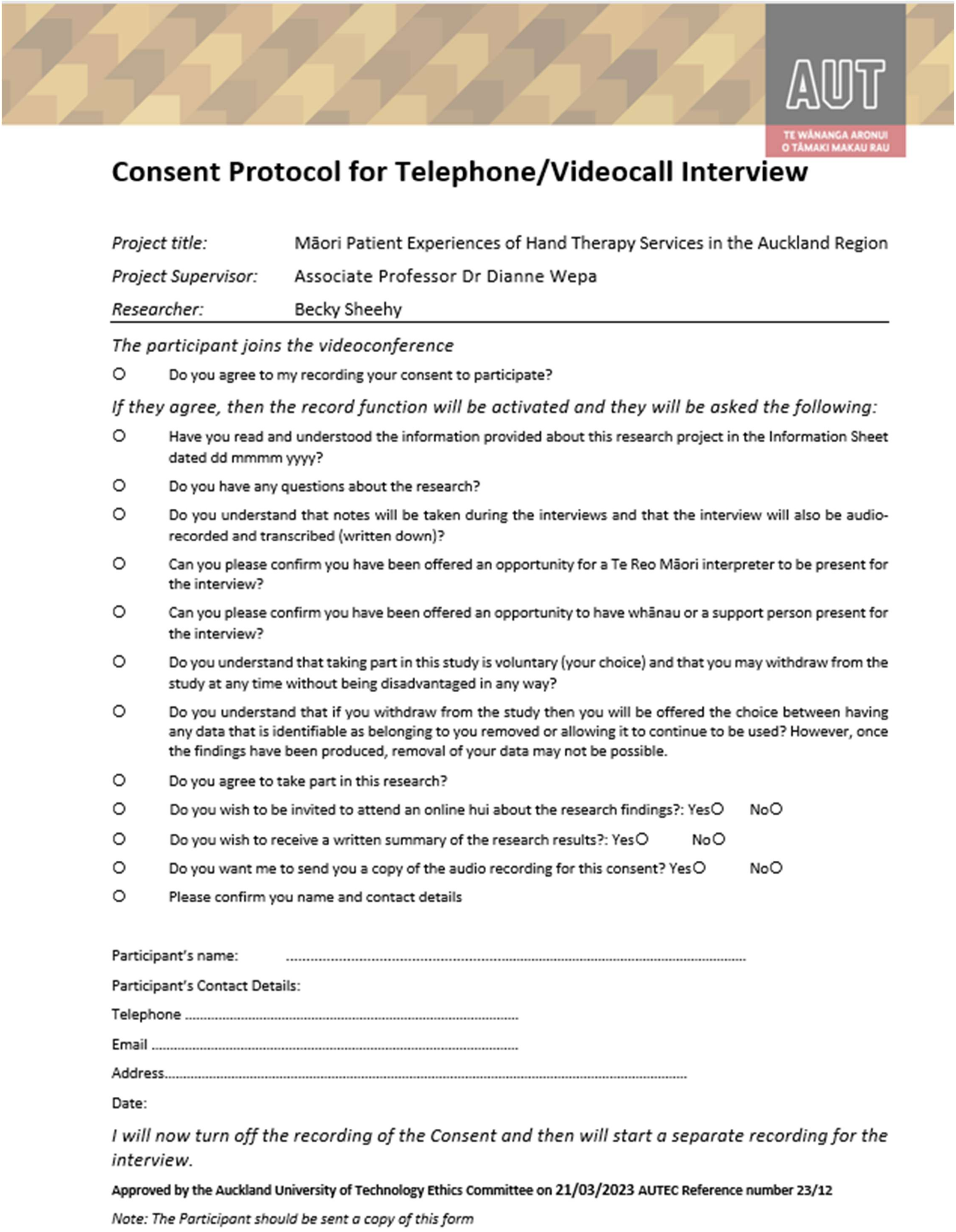
....

....

Date:

Approved by the Auckland University of Technology Ethics Committee on 21/03/2023 AUTEC Reference number 23/12

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



AUT
TE WĀNANGA ARONUI
O TĀMAKI MAKAU RAU

Consent Protocol for Telephone/Videocall Interview

Project title:	Māori Patient Experiences of Hand Therapy Services in the Auckland Region
Project Supervisor:	Associate Professor Dr Dianne Wepa
Researcher:	Becky Sheehy

The participant joins the videoconference

○ Do you agree to my recording your consent to participate?

If they agree, then the record function will be activated and they will be asked the following:

○ Have you read and understood the information provided about this research project in the Information Sheet dated dd mmmm yyyy?

○ Do you have any questions about the research?

○ Do you understand that notes will be taken during the interviews and that the interview will also be audio-recorded and transcribed (written down)?

○ Can you please confirm you have been offered an opportunity for a Te Reo Māori interpreter to be present for the interview?

○ Can you please confirm you have been offered an opportunity to have whānau or a support person present for the interview?

○ Do you understand that taking part in this study is voluntary (your choice) and that you may withdraw from the study at any time without being disadvantaged in any way?

○ Do you understand that if you withdraw from the study then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used? However, once the findings have been produced, removal of your data may not be possible.

○ Do you agree to take part in this research?

○ Do you wish to be invited to attend an online hui about the research findings?: Yes○ No○

○ Do you wish to receive a written summary of the research results?: Yes○ No○

○ Do you want me to send you a copy of the audio recording for this consent? Yes○ No○

○ Please confirm you name and contact details

Participant's name: ....

Participant's Contact Details:

Telephone ....

Email ....

Address...

Date:

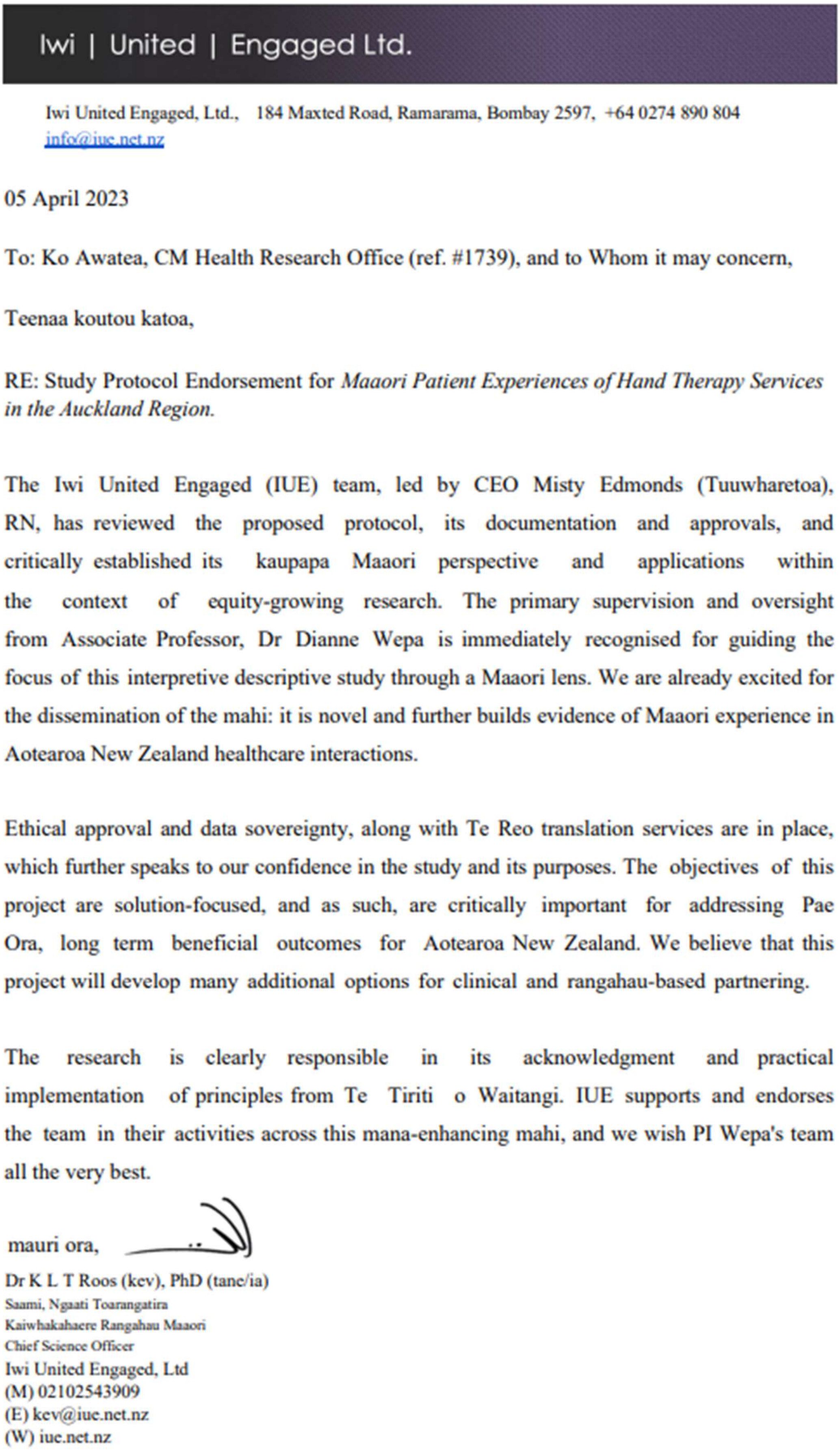
I will now turn off the recording of the Consent and then will start a separate recording for the interview.

Approved by the Auckland University of Technology Ethics Committee on 21/03/2023 AUTEC Reference number 23/12

Note: The Participant should be sent a copy of this form

Appendix L

Counties Manukau Health Māori Research Review Letter



Iwi | United | Engaged Ltd.

Iwi United Engaged, Ltd., 184 Maxted Road, Ramarama, Bombay 2597, +64 0274 890 804
info@iue.net.nz

05 April 2023

To: Ko Awatea, CM Health Research Office (ref. #1739), and to Whom it may concern,

Teenaa koutou katoa,

RE: Study Protocol Endorsement for *Maaori Patient Experiences of Hand Therapy Services in the Auckland Region.*

The Iwi United Engaged (IUE) team, led by CEO Misty Edmonds (Tuuwharetoa), RN, has reviewed the proposed protocol, its documentation and approvals, and critically established its kaupapa Maaori perspective and applications within the context of equity-growing research. The primary supervision and oversight from Associate Professor, Dr Dianne Wepa is immediately recognised for guiding the focus of this interpretive descriptive study through a Maaori lens. We are already excited for the dissemination of the mahi: it is novel and further builds evidence of Maaori experience in Aotearoa New Zealand healthcare interactions.

Ethical approval and data sovereignty, along with Te Reo translation services are in place, which further speaks to our confidence in the study and its purposes. The objectives of this project are solution-focused, and as such, are critically important for addressing Pae Ora, long term beneficial outcomes for Aotearoa New Zealand. We believe that this project will develop many additional options for clinical and rangahau-based partnering.

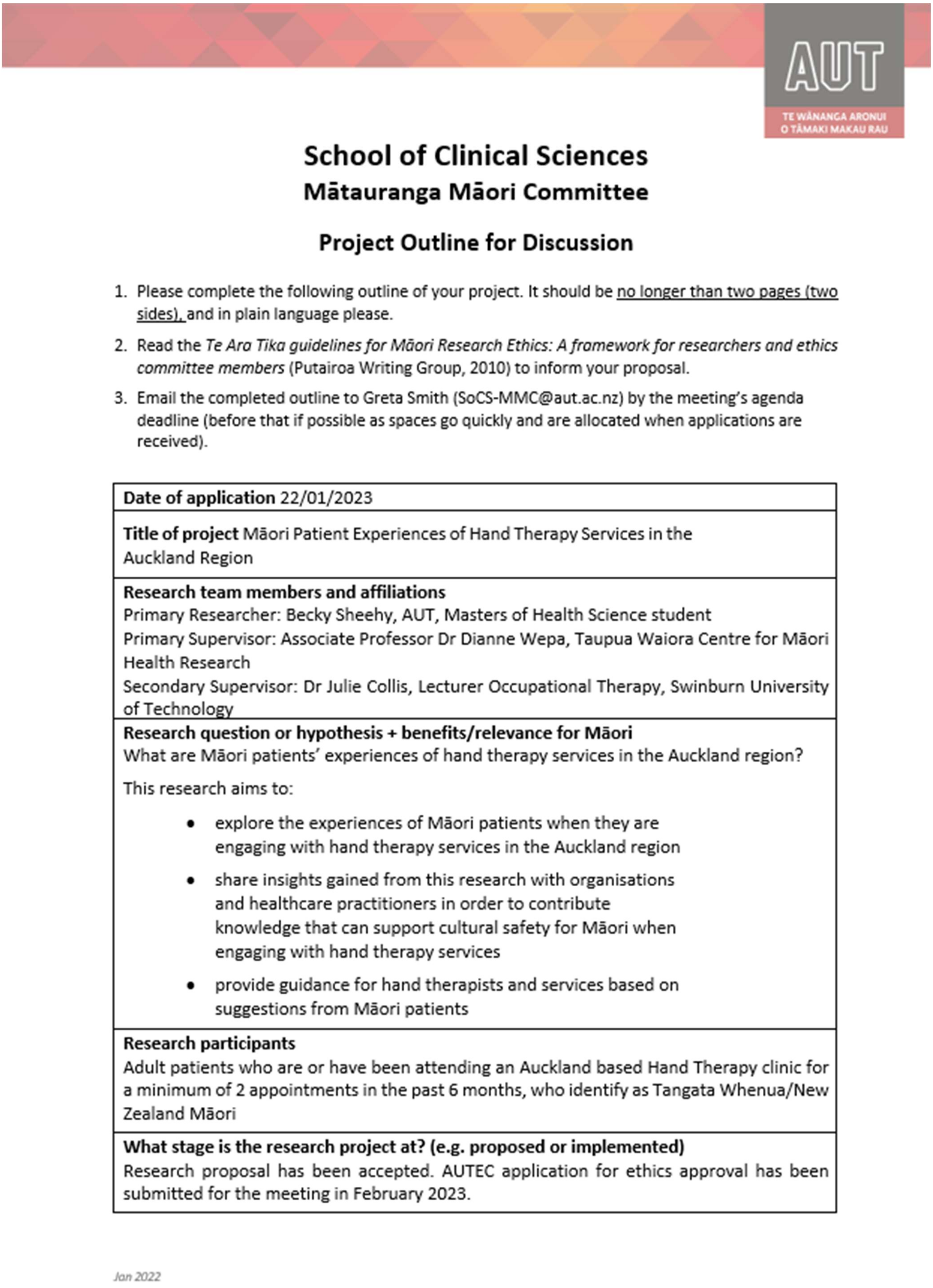
The research is clearly responsible in its acknowledgment and practical implementation of principles from Te Tiriti o Waitangi. IUE supports and endorses the team in their activities across this mana-enhancing mahi, and we wish PI Wepa's team all the very best.

mauri ora,

Dr K L T Roos (kev), PhD (tane/ia)
Saami, Ngaati Toarangatira
Kaiwhakahaere Rangahau Maaori
Chief Science Officer
Iwi United Engaged, Ltd
(M) 02102543909
(E) kev@iue.net.nz
(W) iue.net.nz

Appendix M

AUT School of Clinical Sciences Mātauranga Māori Committee Consultation



School of Clinical Sciences
Mātauranga Māori Committee

Project Outline for Discussion

1. Please complete the following outline of your project. It should be no longer than two pages (two sides), and in plain language please.
2. Read the *Te Ara Tika guidelines for Māori Research Ethics: A framework for researchers and ethics committee members* (Putairoa Writing Group, 2010) to inform your proposal.
3. Email the completed outline to Greta Smith (SoCS-MMC@aut.ac.nz) by the meeting's agenda deadline (before that if possible as spaces go quickly and are allocated when applications are received).

Date of application 22/01/2023

Title of project Māori Patient Experiences of Hand Therapy Services in the Auckland Region

Research team members and affiliations
Primary Researcher: Becky Sheehy, AUT, Masters of Health Science student
Primary Supervisor: Associate Professor Dr Dianne Wepa, Taupua Waiora Centre for Māori Health Research
Secondary Supervisor: Dr Julie Collis, Lecturer Occupational Therapy, Swinburn University of Technology

Research question or hypothesis + benefits/relevance for Māori
What are Māori patients' experiences of hand therapy services in the Auckland region?

This research aims to:

- explore the experiences of Māori patients when they are engaging with hand therapy services in the Auckland region
- share insights gained from this research with organisations and healthcare practitioners in order to contribute knowledge that can support cultural safety for Māori when engaging with hand therapy services
- provide guidance for hand therapists and services based on suggestions from Māori patients

Research participants
Adult patients who are or have been attending an Auckland based Hand Therapy clinic for a minimum of 2 appointments in the past 6 months, who identify as Tangata Whenua/New Zealand Māori

What stage is the research project at? (e.g. proposed or implemented)
Research proposal has been accepted. AUTEC application for ethics approval has been submitted for the meeting in February 2023.

Jan 2022

Consultation with Māori to date The primary researcher has and will continue to discuss this research project with the Māori research advisor at Te Whatu Ora Counties Manukau and the research primary supervisor, who identifies as Māori.

The proposal for this study has been reviewed and feedback provided by Professor Denise Wilson and Dr Isaac Warbrick, both co-directors of Taupua Waiora Centre for Māori Health Research.

Methodology This research is an interpretive descriptive study that will explore the experiences of Māori patients when they are engaging with hand therapy services in the Auckland region. A rights-based, Te Tiriti o Waitangi informed approach will underpin this study. This research will focus on Māori rights to Ōritetanga and Kawanatanga as stipulated in articles two and three of Te Tiriti.

Please complete the following sections, outlining the relevant cultural considerations and how these will be managed. ☐

Recruitment processes

Participants will be recruited via Auckland hand therapy clinics. Advertisement posters and will be made available to involved hand therapy clinics. The first 12 to 15 people who express interest and meet the eligibility criteria will be invited for interview

Data collection

A 60 to 90 minute interview. The interview can take place face to face, via video call or telephone call. The participant can have a whanau member present if they wish. The option of a Te Reo Māori interpreter for the interview will be offered. The interview will incorporate tikanga Māori including karakia, whakawhanaungatanga, kai and koha.

Data analysis

Reflexive thematic analysis, as described by Braun & Clarke (2006) will be used to analyse interview transcripts. Initial codes and candidate themes will be decided upon within the supervision team. An opportunity to review a summary of initial themes will be offered to participants in written format or by attending a video call hui

Dissemination of results

A written summary of the final research results will be provided to participants. Results will be presented at the Hand Therapy New Zealand conference. It is intended that the results will be written up for publication in an academic journal.

Any specific areas for discussion?

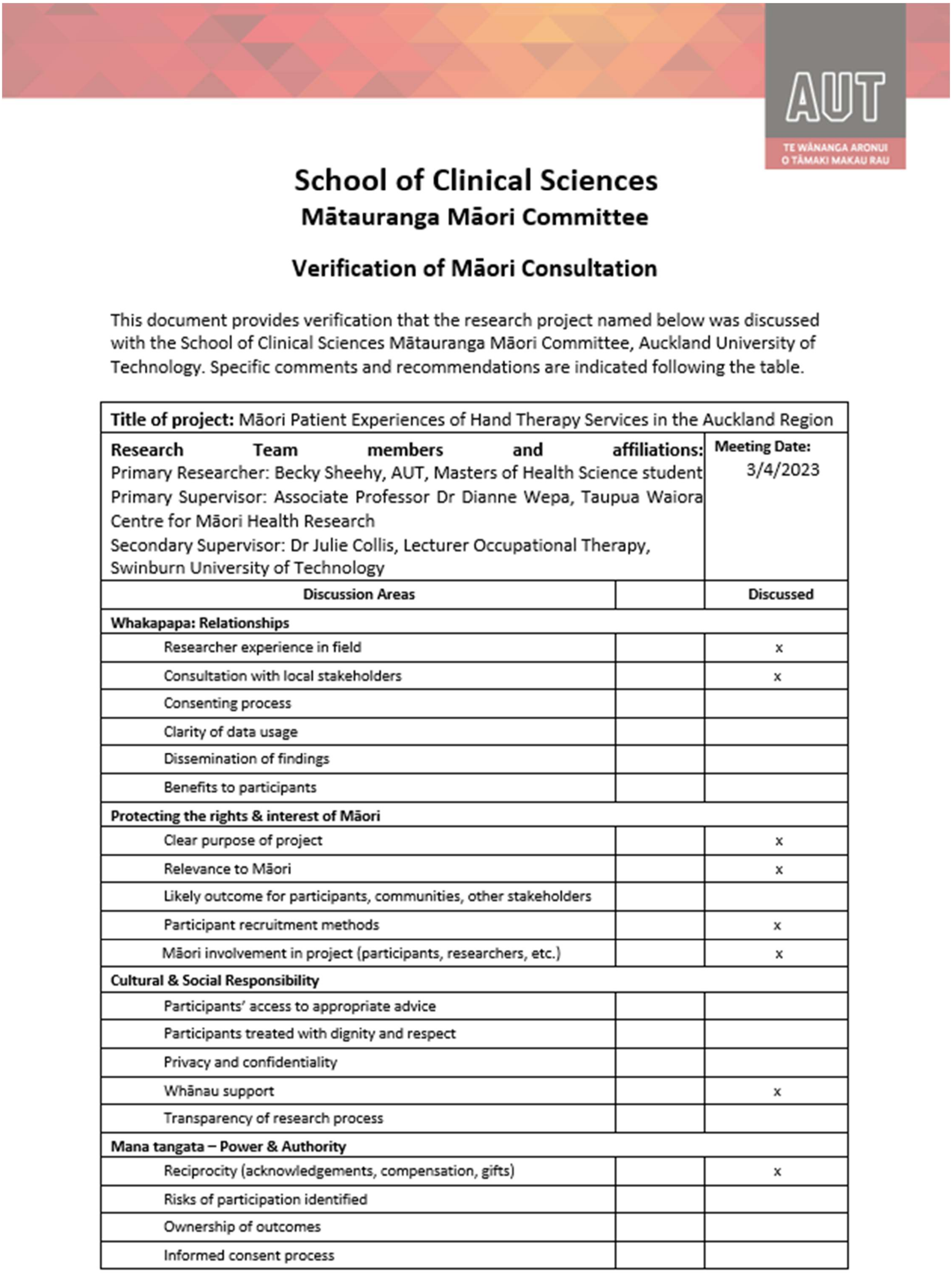
Mana whenua approval for Auckland region
Tikanga for interviews
Co-construction of data and themes

Would you like your project to remain confidential? Yes [✓ No]

Do you intend to bring any support people to the meeting? Yes [✓ No]

Have you read the *Te Ara Tika guidelines for Māori Research Ethics*? [✓ Yes] No

Note: Observers may be present at the meeting (except where the project is confidential)



School of Clinical Sciences
Mātauranga Māori Committee

Verification of Māori Consultation

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

Title of project: Māori Patient Experiences of Hand Therapy Services in the Auckland Region		
Research Team members and affiliations: Primary Researcher: Becky Sheehy, AUT, Masters of Health Science student Primary Supervisor: Associate Professor Dr Dianne Wepa, Taupua Waiora Centre for Māori Health Research Secondary Supervisor: Dr Julie Collis, Lecturer Occupational Therapy, Swinburn University of Technology		**Meeting Date:** 3/4/2023
Discussion Areas		**Discussed**
Whakapapa: Relationships		
Researcher experience in field		x
Consultation with local stakeholders		x
Consenting process		
Clarity of data usage		
Dissemination of findings		
Benefits to participants		
Protecting the rights & interest of Māori		
Clear purpose of project		x
Relevance to Māori		x
Likely outcome for participants, communities, other stakeholders		
Participant recruitment methods		x
Māori involvement in project (participants, researchers, etc.)		x
Cultural & Social Responsibility		
Participants' access to appropriate advice		
Participants treated with dignity and respect		
Privacy and confidentiality		
Whānau support		x
Transparency of research process		
Mana tangata – Power & Authority		
Reciprocity (acknowledgements, compensation, gifts)		x
Risks of participation identified		
Ownership of outcomes		
Informed consent process		

Notes / Clarifications

1.	Becky has been a hand therapist in CMDHB for 4 years. The aim of the study is to gain understanding of the experiences of Māori undergoing hand therapy – both as a function of interactions with staff and environment, and as Māori.
2.	The researcher has a strong connection with CMDHB Super Clinic and the intention is to connect with old colleagues to encourage them to recruit to the study. This clinic draws from a wide region.
3.	The research team noted that both ACC and non-ACC clients go through the Manukau super clinics.
4.	

Recommendations made by Committee

1.	The Committee acknowledged the strong support that the researcher has in her supervisory team, and the positive intention to focus on Māori.
2.	The Committee suggested attending recruiting clinics in person so that the researcher is available to explain more to potentially interested participants. They noted that this provides an opportunity for development of whanaungatanga, which would likely also support recruitment.
3.	The Committee strongly recommended including a Māori co-researcher in the team who can be present when interviewing participants. The Committee felt that this would be likely to yield much richer and pertinent conversation. Acknowledging the challenge in finding someone for this role, the committee suggested thinking about the potential of working with an undergraduate who is skilled in tikanga Māori, or a contact outside of academia.
4.	Acknowledging the challenges involved in recruiting in this space, the Committee suggested considering approaching fewer participants, potentially allowing for deeper exploration.
5.	There was some discussion over the inclusion of whānau voice in this project, but the Committee acknowledged that this was potentially beyond the scope of this project, and could form a future project in its own right.
6.	The Committee advised piloting of the planned questionnaire, and Belinda Ihaka (belinda.ihaka@aut.ac.nz) offered to work with the researcher on this.
7.	The Committee recommended that a Māori speaker be included in the analysis of interviews, whether or not the interviews are in te reo. They advised that support over and above straight language interpretation skills would be important, again highlighting the advantage of including a Māori co-researcher in data collection and analysis.
8.	The Committee suggested first asking existing Māori contacts if they know of anyone who may be interested in becoming a co-researcher on this project, which may provide an opportunity for them to experience and learn too in a research environment. If needed, the research team can contact Grant Mawston and

	Tammi Wilson Uluinayau, who will potentially be able to approach other suitable contacts.
9.	In discussion about ways of working with a Māori co-researcher in this space, the Committee recommended treating them as tuakana (mentor), working in partnership, building relationships, and ensuring reciprocity, e.g. authorship in publications. They suggested involving a co-researcher early on in key development aspects of the project, e.g. questionnaire development, and advised having a conversation with the potential co-researcher to explore how they and the researcher can best work together.
10.	The Committee recognised the researcher's clear long-term aspirations, and would encourage that the relationships enjoyed through this project be actively maintained afterwards, enabling ongoing enrichment throughout their career, and sharing learnings.

Please contact the Committee's Administrator Greta Smith at socs-mmc@aut.ac.nz if you have any questions about this feedback.

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

Signature: Date: 23/04/2023

Grant Mawston
Mātauranga Māori Consultation Committee

Appendix N

Qualitative Protocol Publication

Te Tiriti Informed Approach: A Korowai of Cultural Safety for Research

Becky Sheehy[1], Julie Collis[2] and Dianne Wepa[1]

Abstract

This article describes the process of developing a qualitative study that is underpinned by a Tiriti o Waitangi informed approach. The rationale, philosophical underpinnings, methodologies, methods and researcher positionality are outlined for a planned qualitative study that aims to explore Māori patients' experiences of hand therapy services in Tāmaki Makaurau | Auckland, Aotearoa New Zealand. The team for this study is made up of both Pākehā and Māori researchers. The protocol discusses important considerations for Pākehā healthcare professionals completing research with Māori and for designing research that is culturally safe – named here as a korowai of cultural safety.

Keywords: Hand therapy, Māori, pākehā researcher, qualitative study protocol.

Reference

Sheehy, B., Collis, J., & Wepa, D. (2023). Te Tiriti informed approach: A korowai of cultural safety for research. *New Zealand Journal of Occupational Therapy, 71*(1), 33-39.

There is a growing body of literature reporting Māori[1] consumer experiences of healthcare services in Aotearoa New Zealand (Graham & Masters-Awatere, 2020; Jansen et al., 2008; Wepa & Wilson, 2019). However, little is known regarding the experiences of Māori in their encounters with physical rehabilitation services, including hand therapy. Increasing healthcare practitioners understandings of Māori health through research can assist them in contributing to organisations with a focus on Māori health aspirations that are evidence-based (Scott, 2014). We have therefore planned a qualitative study that seeks to inform health professionals about their interactions with Māori patients. This study is being undertaken as a component of the first author's (BS) Master of Health Science studies, that commenced mid-2023. The second (JC) and third (DW) authors are the Masters supervisors. The primary supervisor (DW) identifies as Māori and will have oversight of the study's cultural safety.

This paper outlines the planned study protocol. This protocol describes elements of the study in detail that would not be suitable for the final study article. The integrity of qualitative research is often called into question due to under reporting of key elements (O'Brien et al., 2014). Explaining underlying theory and making developmental processes and research procedures visible enables readers and peer reviewers to assess the integrity and quality of the planned study's design. Readers can also decipher the study's potential to contribute to the literature and it's applicability to the health field (Amankwaa, 2016; Ancker et al., 2021).

Aims

This research aims to:

- explore the experiences of Māori patients engaging with hand therapy services in Tāmaki Makaurau | Auckland
- contribute knowledge and provide guidance for hand therapists that can support cultural safety for Māori when engaging with hand therapy services.

Research Question

What are Māori patients' experiences of hand therapy services in the Tāmaki Makaurau | Auckland?

A Review of the Literature

The World Health Organization defined health equity as the absence of unfair and avoidable or remediable differences in health among population groups defined socially, economically, demographically or geographically (Chin, 2021). Article 24 of the United Nations Charter for Rights of Indigenous Peoples, that has been ratified in Aotearoa New Zealand, affirms that States must take the necessary steps to achieving the full realization of indigenous peoples' right to

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[1] The Indigenous peoples of Aotearoa New Zealand

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[2] Swinburne University, Melbourne

equal access to health services and to attaining the highest possible standard of health (United Nations, 2007). Of note, equity is distinct from equality; it is the recognition that different groups in society may require different approaches and resources in order to achieve the same outcome (Ministry of Health, 2018).

Health Inequity in Aotearoa New Zealand

Globally, the pervasive health inequities that exist between Indigenous and non-Indigenous populations have been deemed one of the most urgent humanitarian issues of the 21st century (Jones et al., 2019; Nelson et al., 2021). In a study of commonwealth countries, Aotearoa New Zealand ranked eighth of eleven countries in terms of health equity (Chin et al., 2018). This means that Māori experience the greatest levels of inequity in health access, health outcomes, health determinants and quality of healthcare in Aotearoa New Zealand (Harris et al., 2013; Jansen et al., 2008). These inequities manifest in significantly worse mortality and morbidity rates compared to non-Māori, across a range of indicators including communicable disease, chronic illness, injury, mental health and disability (Harwood, 2010; Health Quality and Safety Commission-New Zealand, 2019; Zambas & Wright, 2016).

Te Tiriti o Waitangi

Prior to the arrival of settlers from Europe, a sophisticated system of public health existed in Aotearoa New Zealand (Waitangi Tribunal, 2011). Based on a communal belief in rules surrounding tapu[2] and noa[3] , the health structures and systems were tailored to Māori, to whenua[4] and to collective and holistic concepts of health and well-being (Graham & Masters-Awatere, 2020; Waitangi Tribunal, 2011). Colonisation introduced foreign diseases, firearms, warfare and land loss, all of which had a detrimental impact on Māori health (Ellison-Loschmann & Pearce, 2006; Wilson & Haretuku, 2015). A rapidly declining Māori population, and lawlessness being displayed by newcomers, prompted the need for British intervention in the form of the signing of Te Tiriti o Waitangi[5] (hereafter Te Tiriti) in 1840 (Wilson & Haretuku, 2015).

Both English and Māori versions of the document exist. International law gives precedence to the Māori text under the legal doctrine of 'contra proferentem,' which means if a contract is ambiguous it is interpreted against the party who offered the contract. Te Tiriti consists of a preamble and four articles: kāwanatanga[6], tino rangatiratanga[7], ōritetanga[8] and wairuatanga[9] (Network Waitangi, 2018). The articles of the Māori text of Te Tiriti affirmed Māori sovereignty over taonga[10], including health and health practices, guaranteed Māori the same rights and privileges as British subjects and assured equity to Māori (Came et al., 2017). Since the signing, the government and health sector have largely overlooked their obligations to uphold the promises of Te Tiriti, which has had implications for Māori health since (Wilson & Haretuku, 2015).

Health Professional Responsibilities

Responsibility for redress of breaches of Te Tiriti lies with the Crown entity (Came et al., 2020; Reid et al., 2017). In the case of health inequities experienced by Māori in Aotearoa New Zealand those responsible are the health system and the clinicians within it. The Healthcare Practitioner Competence Assurance Act 2003 Section 118(i) states that the function of professional authorities is to set the standards of clinical and cultural competence for health professionals in Aotearoa New Zealand. The Occupational Therapy and Physiotherapy Boards of New Zealand describe competencies specifically relating to cultural competence and cultural safety to achieve equitable outcomes for Māori (Occupational Therapy Board of New Zealand, 2022; Physiotherapy Board of New Zealand, 2018). As hand therapists in Aotearoa New Zealand (a group made up of occupational therapists and physiotherapists), we must do all we can within our spheres of influence to ensure health equity becomes a reality for Māori. With the newly introduced Pae Ora (Healthy Futures) Act 2022, it is timely to take stock of current service provision in order to make changes in keeping with the objectives of this Act, namely for healthcare services to be more culturally safe for Māori.

Culturally Safe Qualitative Research

Literature suggests that interventions to address the pervasive health inequities that exist for Māori should occur at system, organisational and individual healthcare practitioner levels (Cram, 2014). Patient-centred, qualitative research can generate insights to inform quality improvement and service development across these levels (Palmer et al., 2019). Equally, patient narratives are said to have the potential to evoke empathy in the perpetrators of racist behaviours, thereby increasing awareness and potentially changing the behaviour of individual healthcare practitioners when treating Māori patients (Wain et al., 2016). As culturally safe care is defined by the recipients of that care, it is integral that health professionals and organisations gain understanding of the experiences of Māori patients in order to deliver culturally safe services (Curtis et al., 2019; Wepa, 2015). Culturally safe services and practitioners consider the multitude of factors that can impact on an individual's healthcare encounter including the influence of personal and environmental culture, biases and assumptions; power relationships; and historical, institutional, socio-political and socio-economic constructs, on the health and health outcomes of those they serve. Culturally unsafe practice is any act or system delivery that diminishes, demeans or disempowers the cultural integrity, identity or well-being of those from another culture (Gerlach, 2012; Ronald et al., 2020; Wepa, 2015).

Researcher Positionality

An essential element of researching in a culturally safe way is engaging in critical self-reflection. Researchers should

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[2] Restricted

[3] Unrestricted

[4] Land

[5] The Māori text of an agreement signed between Tangata Whenua and British representatives of Queen Victoria in 1840

[6] Article one of Te Tiriti o Waitangi. The Queen's representative can exercise governorship over British subjects

[7] Article two of Te Tiriti o Waitangi. The Queen recognizes and upholds the paramount authority of Tangata Whenua of their lands, villages and taonga

[8] Article three of Te Tiriti o Waitangi. Accords to Māori the same rights as British subjects, in addition to their rights already enjoyed in their own society

[9] Article four of Te Tiriti o Waitangi. A verbal article agreeing that the several faiths of Pākehā and Māori custom and religion will be protected by the Queen's representative

[10] Treasures

endeavour to be aware of their positionality and to be reflexive regarding the influence of positionality on the research process (McKenna, 2020; Patterson et al., 2023). This is particularly pertinent in the context of cross-cultural health research in Aotearoa New Zealand where a Pākehā[11] researcher's lived experience and world view differs from those of Māori participants. Making researcher positionality explicit in a study protocol enables readers to understand its influence on the motivations for completing the research and on the choices made with regards to the study design (Jacobson & Mustafa, 2019).

I (BS) am an occupational therapist, registered hand therapist and Masters of Health Science student at Auckland University of Technology. Since moving to Aotearoa New Zealand from Ireland, and working in the health system, I have become increasingly aware of the inequities that exist for Māori. Before coming to live in Aotearoa New Zealand and initially, while being and practicing here, I did not consider that there were other ways of knowing the world. What I thought I knew had never been challenged or questioned up until that point, as I had grown up surrounded by people with similar backgrounds and ways of thinking.

For me, realising the magnitude of the ways in which the health system and wider society disadvantaged Māori, gradually became obvious. Interactions with patients that exposed my ignorance of working in a culturally safe way pushed me to reflect on myself as a therapist and indeed as a person. Through professional learning opportunities and postgraduate study, I have developed a deeper understanding of the socio-economic, political, and historical determinants of health that impact on the health status of Māori. I have also become cognisant of the effects of healthcare practitioner bias and discriminatory behaviour as well as systemic racism. My personal and professional learning journey has raised concerns for me about equitable access and delivery of hand therapy services so I want to investigate further.

He Tangata Tiriti ahau[12] – I have responsibilities as a Tiriti partner in completing this research. As an Irish immigrant to Aotearoa New Zealand, I acknowledge that I live and work here under the terms and conditions set out in Te Tiriti. I believe Irish and Māori people share a history, both having lost culture, language and land through colonisation. However, I am aware that I hold a position of privilege in the context of Aotearoa New Zealand because I am Pākehā. This is likely to impact on my position as a researcher, which is important to recognise given that interpretive description, the chosen methodological framework for this study, values the influence of the researcher and the participant(s) on each other (Thorne, 2016). I will need to engage in ongoing critical reflection and be flexible and open to tackle situations of Pākehā paralysis that will likely occur throughout the research process (Barnes, 2013).

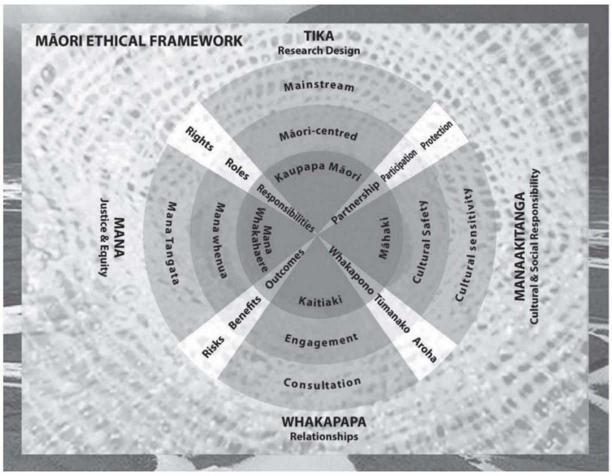
Methodology

Methodology is the theory of inquiry. It is the principles that direct a research approach. It points the researcher to a particular research process, and includes framing of the research question and methods selection. It is the guideline for how research should occur (Grant & Giddings, 2002). Pākehā must be involved with Māori in bringing about health system change as the power imbalance is currently in favour of Pākehā (Barnes, 2013; Silcock, 2021). However, in bringing about this change Pākehā must be mindful that research needs to be acceptable, accountable and relevant to Māori (Came, 2013). Therefore, the agreement between Māori and Pākehā that is laid out in Te Tiriti will be a consideration in each stage of the research journey.

Te Tiriti Informed Approach

A rights-based, Te Tiriti-informed approach will underpin this study. Although there is literature supporting research based on Treaty principles, this research will focus on Māori rights, as Tangata Whenua[13], to ōritetanga and kāwanatanga as stipulated in the articles of Te Tiriti (Came et al., 2020; King et al., 2018). The Te Ara Tika[14] Framework (Hudson et al., 2010) has been utilised to underpin the ethics of this study in order to ensure Te Tiriti responsibilities are enacted (Figure 1). The Te Ara Tika Framework supports the inclusion of concepts such as kia tūpato[15]; relational reciprocity; commitment and accountability to Māori and appropriate use of tikanga[16] and Te Reo Māori[17] in consultation with Māori colleagues and participants (Barnes, 2013; Came, 2013; Hudson et al., 2010). Examples of the application of Te Ara Tika in the design for this planned study include: engaging in whakawhanaungatanga[18] during the data collection phase; use of karakia[19], provision of kai[20] and koha[21]; engagement with Māori as part of the research team and as participants; and application of Māori data sovereignty principles as appropriate (Te Mana Raraunga, 2016).

Figure 1 *Te Ara Tika Framework.*



Note. From "Te Ara Tika. Guidelines for Māori research ethics: A framework for researchers and ethics committee members" by M. Hudson, M. Milne, P. Reynolds, K. Russell and B. Smith, 2010, p.4. Copyright Health Research Council of New Zealand.

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[11] Non-Indigenous New Zealander, usually of European descent

[12] I am a Treaty person

[13] People of the land, Indigenous peoples

[14] The right way

[15] To be careful

[16] Māori protocols and practices

[17] Māori language

[18] Creating connections, forming relationships

[19] Prayer, chant, incantations

[20] Food

[21] Gift

Interpretive Description

The planned study will use interpretive description as a methodological framework. Interpretive description is a qualitative approach that recognises the production of knowledge from the subjective human health experience. This subjective knowledge is required to enable clinical understanding and decision making that is based on the lives of real people. Interpretive description goes beyond mere description to seek associations and patterns and dive into the domain of interpretive explanation (Thorne, 2008). Interpretive description acknowledges the subjective, contextual and socially-constructed nature of human experience which is pertinent given the context of Aotearoa New Zealand's health system and diverse Māori realities within that context (Durie, 1995; Thorne, 2016). Furthermore, interpretive description considers co-production of knowledge between participants and the researcher. It also aims to produce results that can inform clinical practice (Thorne, 2016).

Methods

Ethics

This planned study has been approved by the Auckland University of Technology Ethics Committee (AUTEC) on 23/03/2023, number 23/12.

Data collection

Data will be generated using interviews to explore the experiences of Māori hand therapy patients when encountering services in Tāmaki Makaurau | Auckland.

Participants

Between 12 to 15 participants will be recruited for this study. The first 12 to 15 participants to express interest in being involved in the study and meet the eligibility criteria will be included (Table 1).

Recruitment

Participants will be recruited via hand therapy clinics in Tāmaki Makaurau | Auckland. Hand therapy clinics will be asked to assist in gathering expressions of interest from patients who meet the eligibility criteria. BS will meet with hand therapists at clinics and present the research proposal to create connections with colleagues. The advertisement poster for the study includes options for potential participants to express interest via direct contact with the researcher, through completion of an online form, by scanning a QR code, or through their hand therapist (Figure 2).

Table 1 *Participant Eligibility Criteria*

Identify as New Zealand Māori
Be over 18 years of age
Have attended a minimum of two hand therapy appointments in the past 6 months
Have attended/are attending a hand therapy clinic in Tāmaki Makaurau | Auckland as defined on the Hand Therapy New Zealand website (Southernmost clinic is Pukekohe and Northernmost is Mangawhai)
Not currently under the direct care of the researcher

After an individual has expressed interest, telephone contact will then be made. During this initial phone call the research purpose and process and the informed consent process will be explained and any questions answered. This initial phone call is an opportunity for whakawhanaungatanga prior to completing interviews.

Figure 2 *Advertisement Poster*

INVITATION TO PARTICIPATE

Tēnā koe.

You are invited to participate in a study about Māori patient experiences of hand therapy.

What is this research about?

The aim of this study is to learn about your experiences while being treated for your hand. I am specifically interested in your point of view as a person who identifies as Tangata Whenua/New Zealand Māori.

Who can participate?

Anyone aged 18 and above who identifies as Tangata Whenua/New Zealand Māori and has attended two or more hand therapy appointments in the last 6 months.

What is involved?

A 60 to 90 minute kōrero/interview to share your whakaaro/thoughts with me. Ko Becky Sheehy tōku ingoa. I am the primary researcher for this project. He Tangata Tiriti ahau. I am a Masters of Health Science student at AUT.
On completion of the interview you will receive a koha of a $50 Prezzy voucher.

If you are interested and would like to find out more please:

Talk to your hand therapist

OR

Scan the QR code

OR

Contact me directly via email: wtc2273@autuni.ac.nz or phone/text: 02108242244

Interviews

Semi-structured, exploratory interviews will be conducted with participants and their nominated whānau[22] member (if participant wishes). The option to complete interviews kanohi ki te kanohi[23] at the participant's home or preferred location, via telephone or video call will be offered. The option to complete interviews with a te reo Māori interpreter will also be offered. Interviews will follow the pōwhiri[24] process (McClintock et al., 2010). McClintock et al., (2010) describe four elements of the pōwhiri process that are relevant to health research:

1. Karanga[25] which relates the right of entry to the consent process for participants being invited to engage in research;
2. Mihimihi[26] which is time for whanaungatanga[27] and explaining the purpose of the interview in the context of the research;

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[22] Extended family group
[23] Face to face
[24] A formal welcoming ceremony on to a marae (meeting place)
[25] A call of welcome
[26] Greeting, introductions
[27] Relationship, kinship

3. Whaikōrero[28] is time for data collection through listening and discussion;
4. Koha which is a demonstration of appreciation for the time and stories shared during the interview.

Interview Guide. Domains to be explored in the interview include practical aspects of attending hand therapy, participants' relationships with hand therapy staff, participants' experiences of the treatment received and wider aspects of the health system that may impact on hand therapy experiences for Māori. The interview guide will be solution-focused to gather constructive feedback from Māori for the delivery of culturally safe hand therapy. Furthermore, the guide will be used as a reference document in a semi-structured manner. The guide will develop iteratively as interviews progress. Data collection and analysis will happen concurrently. The interview guide will be further informed by a planned scoping review that will thematically synthesize literature pertaining to Māori experiences of physical rehabilitation in Aotearoa New Zealand. The protocol for this scoping review will be based on the Joanna Briggs Institute Framework that describes the steps for developing a review protocol, searching for literature, selection and analysis of the evidence (Peters et al., 2020). This planned scoping review will search databases and grey literature for qualitative studies completed in the last ten years.

Data Analysis

Interviews will be audio recorded and transcribed verbatim by BS. Reflexive thematic analysis will be used to examine the interview transcripts based on the six phases described by Braun and Clarke (2006). This involves the development of themes from a series of codes generated from the data (Braun & Clarke, 2021; Terry et al., 2017). Initial codes and candidate themes will be discussed and decided upon within the supervision team. An opportunity to attend a video call hui where a summary of the initial themes generated from all the data will be presented to participants for review and feedback prior to decision on final themes.

Study Rigour

It has been argued that quality criteria within qualitative studies is inappropriate as the concept of study rigour arose from the positivist paradigm. Nonetheless, in keeping with the purpose of making research processes transparent, this article enables readers to discern study quality and determine study rigour through explanation of research processes. The details provided in this article regarding theoretical underpinnings, methodological framework and chosen methods act as part of an audit trail for this study.

To ensure data gathered is rich and in keeping with the research question and objectives, BS will take field notes before and after interviews and the initial two to three interview transcripts will be reviewed within the research team (Braun & Clarke, 2022). Providing an opportunity for participants and whānau to attend an online hui to discuss initial data themes is intended to ensure themes reflect Māori experience. Researcher reflexivity will be actioned by BS keeping a reflexive research journal and regularly engaging with research supervisors throughout the process.

Results Dissemination

A summary of the results will be offered in written format to participants once the study is complete. BS intends to write up the results of the scoping review and the results of this planned study for publication in an academic journal and present at relevant conferences. Any publications arising from this study will be made available to participants and their whānau.

Conclusion

This article has described the protocol for a planned qualitative study that aims to explore the experiences of Māori patients when engaging with hand therapy services in Tāmaki Makaurau | Auckland. In the context of Aotearoa New Zealand, Pākehā researchers have a responsibility to design studies that are culturally safe. The articles of Te Tiriti act as a guide to navigating the inevitable tensions of being a Pākehā researcher when developing a study that includes Māori participants. Te Tiriti surrounds this study in a korowai[29] of cultural safety and enables a move away from Pākehā paralysis to researching as a Tiriti partner.

Key Points

1. A planned study, that uses a Tiriti informed approach, exploring the experiences of Māori hand therapy consumers is described.
2. For studies involving Pākehā researchers and Māori participants a Tiriti informed approach can surround research in a korowai of cultural safety.
3. Pākehā researchers must engage in critical self-reflection to understand the influence of their positionality on research involving Māori participants.
4. Te Ara Tika Framework is a useful tool when designing research that is culturally safe.

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[28] Formal speech, oratory

[29] Cloak

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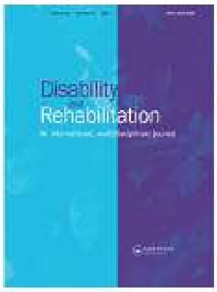
Appendix O

Scoping Review Publication



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REVIEW

Māori experiences of physical rehabilitation in Aotearoa New Zealand: a scoping review

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ABSTRACT

Purpose: The purpose of this review was to explore what is currently known about Māori experiences of physical rehabilitation services in Aotearoa New Zealand.

Methods: A scoping review was undertaken following steps described by the Joanna Briggs Institute. Databases and grey literature were searched for qualitative studies that included descriptions of Māori consumer experiences in their encounters with physical rehabilitation. Data relating to study characteristics were synthesised. Qualitative data were extracted and analysed using reflexive thematic analysis.

Results: Fourteen studies were included in this review. Four themes were generated that describe Māori experiences of rehabilitation. The first theme captures the expectations of receiving culturally unsafe care that become a reality for Māori during rehabilitation. The second theme describes whānau as crucial for navigating the culturally alien world of rehabilitation. The third theme offers solutions for the incorporation of culturally appropriate Māori practices. The final theme encompasses solutions for the provision of rehabilitation that empowers Māori.

Conclusions: This scoping review highlights ongoing inequities experienced by Māori when engaging with rehabilitation services. Strategies for facilitating culturally safe rehabilitation for Māori have been proposed. It is essential that rehabilitation clinicians and policymakers implement culturally safe approaches to rehabilitation with a view to eliminating inequities in care provision and outcomes for Māori.

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Cultural safety; Māori; rehabilitation; scoping review; qualitative

➤ IMPLICATIONS FOR REHABILITATION

- Māori experiences of physical rehabilitation are comparable to the negative experiences they have in other health contexts.
- Although there are pockets of optimism, the results of this scoping review indicate that the delivery of culturally safe rehabilitation is inconsistent in Aotearoa New Zealand.
- A whānau-centred approach to rehabilitation is key to recovery and healing for Māori.
- There are opportunities for clinicians to disrupt the culturally unsafe care experienced by Māori by facilitating rehabilitation that normalises Māori cultural practices and embeds Māori approaches to health and wellbeing.

Introduction

Globally, the pervasive heath inequities that exist between Indigenous and non-Indigenous populations have been deemed one of the most urgent humanitarian issues of the twenty first century [1,2]. Rehabilitation is a common component of care following musculoskeletal injury, illness and acquired disability [3]. Indigenous populations have been found to suffer a heavier burden of musculoskeletal conditions and physical pain [4]. There is however, no associated increase in uptake or access by Indigenous people to rehabilitation services that are designed to assist in achieving and maintaining optimal function and quality of life [5,6].

Māori are the Indigenous people of Aotearoa New Zealand. Māori rights to equitable healthcare are set out in article 24 of the United Nations Charter for Rights of Indigenous Peoples, which was ratified in Aotearoa New Zealand, and in the text of Te Tiriti o Waitangi (hereafter Te Tiriti). Te Tiriti is a treaty that was negotiated between the Crown of England and Māori leaders in 1840. The articles of Te Tiriti affirm Māori sovereignty over their own affairs and treasures, including health and health practices. Te Tiriti guaranteed Māori the same rights and privileges as British settlers and assured equity to Māori [7]. Since its signing, there has been persistent disregard of the tenets of Te Tiriti in the ways healthcare is delivered in Aotearoa New Zealand [8]. Disregard of Māori sovereignty in healthcare is equally true of rehabilitation as it is of primary healthcare and is evident in differential treatment and outcomes that Māori experience.

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Similar to other Indigenous populations that have been colonised, Māori are more likely than non-Māori to sustain life-changing injuries and are less likely to access rehabilitation services [9]. Māori experience higher rates of long-term disability and mental health issues following injury compared to non-Māori [10,11]. Māori often attempt to self-treat injuries before seeking healthcare or the help of a rehabilitation professional, leading to delayed presentations at acute settings and with more serious symptoms [12,13]. Māori are also less likely than non-Māori to be referred for surgical or specialist services [14,15]. To address these disparities, rehabilitation professionals in Aotearoa New Zealand have responsibilities to recognise and uphold the commitments of Te Tiriti and design services that are suitable for Māori.

Although injury and disability inequities are well reported, little is known about the experiences of Māori as consumers of physical rehabilitation services. Studies on Māori experiences of healthcare have largely focused on acute and primary care settings, and medical conditions. Previous studies highlight inequities in access to services and health outcomes and institutional racism [14,16]. A review specifically examining rehabilitation experiences is not known to have been undertaken. Rehabilitation has been recognised as an area with the potential to address Māori health needs because it shares concepts with Māori models of health. Both approaches recognise environmental and contextual factors, incorporate a holistic model, and implement both client- and family-centred care [17,18]. It is therefore essential to gain an understanding of Māori experiences of physical rehabilitation to inform equitable and culturally safe service provision. Culturally safe services attend to a multitude of factors that can impact on a healthcare encounter. Culturally safe clinicians thoughtfully consider the influence of culture; biases and assumptions; power relationships; and historical, institutional, and social constructs. It is important to remember that the cultural safety of a healthcare encounter must be defined by the recipient of care and not by healthcare providers [19].

This scoping review, therefore, aimed to synthesise what is known about Māori experiences of physical rehabilitation services in Aotearoa New Zealand. Scoping reviews allow for a broad range of literature to be included for topics that have not yet been systematically reviewed [20,21]. Additionally, Māori research is a developing area, so it was important to ensure the search extended beyond academic databases, to find studies that could address the objectives of this review [22,23]. The findings from this review will inform a planned qualitative study exploring Māori experiences of rehabilitation in a hand therapy context. The qualitative protocol for this study has been published and includes considerations for the completion of culturally safe, cross-cultural research in Aotearoa New Zealand [24]. An essential element of culturally safe research is to recognise the influence of researcher positionality on design decisions and data analysis [25,26]. Oversight for the culturally safety of this review lay with the second author (DW), who is Māori of Ngāti Kahungunu descent. The first author (BS) is an Irish immigrant to Aotearoa New Zealand and the third author (JC) is Pākehā (non-Māori New Zealander, usually of European descent).

Methods

This scoping review was guided by the Joanna Briggs Institute (JBI) method [23]. Using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) checklist ensured comprehensive reporting of the review [23,27]. The search strategy was developed in consultation with an academic research librarian. The first author (BS) completed a literature search utilising the JBI three-stage iterative search strategy in conjunction with a population, concept, context framework (PCC) to determine eligibility criteria (see Table 1). The first stage was a preliminary search for literature in two databases, using the PCC as search terms. Eligibility criteria and search terms were finalised following this preliminary search. The second stage involved a comprehensive literature search completed in February 2023 and again in January 2024. A full list of the databases and organisations searched for unpublished and grey literature can be found in supplementary file 1. The search strategy was adapted for each database and grey literature source. An example of a full search strategy completed for the Scopus database is provided in supplementary file 2. The third step was a search for additional literature in the reference lists from the studies selected for full review.

Published studies were first exported to Endnote X9, with duplicates removed and titles screened for eligibility. Published studies were then uploaded to Covidence and checked again for duplication. Abstracts were screened in Covidence by the first author (BS). An additional step involved a search for the word Māori or ethnicity in the text body. A full text review of published studies that remained on Covidence after the abstract screen was completed by the first and second authors (BS and DW). Conflicts on study eligibility were resolved through consensus or by consultation with the third author (JC). Unpublished articles such as websites, large policy documents and theses, were examined separately by the first author (BS), due to incompatibility with Endnote and Covidence software.

Data analysis

Extraction of findings followed the JBI method and recommendations for thematic synthesis as described by Thomas and Harden [28]. Data relevant to Māori experiences of physical rehabilitation were extracted verbatim from the studies, for example from participant quotes, study discussions, tables, or supplementary materials. Extracted data excerpts were copied to a Microsoft Word

Table 1. Eligibility criteria.

	Inclusion Criteria	Exclusion Criteria
Population	• Māori, the Indigenous people of Aotearoa • Patient/service user perspective • No age restriction	• Studies that do not describe Māori perspectives in isolation from other ethnic groups • Staff, student, organisational perspective
Concept	• Descriptions of experience • Qualitative studies and mixed methods studies with a qualitative component	
Context	• Physical rehabilitation as defined by the World Health Organisation [3] "a set of interventions designed to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment" • Physical injury, illness or disability • Interventions commonly undertaken by allied health professionals as part of physical rehabilitation • Studies completed in Aotearoa • Studies published in English between 2013 and 2023	• Mental health, addictions or criminal rehabilitation

table for analysis. Themes were formed using Braun and Clarke's [29] reflexive thematic analysis. This method was chosen because it allows for deep analysis of qualitative data. Additionally, reflexive thematic analysis has been used across a broad range of sources, including grey literature, and has been found to be work well alongside Thomas and Harden's [28] thematic synthesis [30,31]. Data familiarisation first occurred through full text review and multiple readings of the literature. Coding was conducted by the first author (BS). Codes were developed inductively; no *a priori* framework was applied. Both semantic and latent codes were applied across the data sets. Codes were transferred from the Microsoft Word table to an online visual whiteboard for grouping, comparison of codes and the formulation of themes. Generation of codes and themes involved an iterative, discussion-based process between all three authors. Points of analysis requiring a Māori lens were clarified with the second author (DW). Quotes were used to support the narrative of each theme.

Results

Study characteristics

A total of 14 studies were included in the review. The study selection process is depicted in Figure 1. No additional studies were found through back-chaining of reference lists. An overview of the characteristics, purpose, and main findings of the studies from the peer-reviewed journals and grey literature searches are presented in Tables 2 and 3 respectively. There were 11 studies from academic journals, two Master's theses and one government study. Two articles [32,33] were descriptions of the same study with the findings from overall cohort and Māori participants published separately. Of the 14 studies, 8 solely explored Māori experiences. No study explicitly compared Māori to non-Māori experiences. The review includes the experiences of a total of 199 Māori, both individuals and their whānau (family). Most of the participants were adults with an age range of 19-94. Four studies included individuals under 18 years old. There was substantial variation in the rehabilitation contexts and diagnoses described in the studies. Programmes included hospital-based rehabilitation, outpatient and community rehabilitation, neurorehabilitation, and pulmonary rehabilitation. Participant diagnoses included neurological conditions, obesity, chronic obstructive pulmonary disease (COPD), and non-specified musculoskeletal conditions. Rehabilitation was mostly facilitated by government-run organisations with one study comparing the experience of a hospital-based and an outpatient programme facilitated on a marae (Māori communal grounds). The studies differed in the parts of the rehabilitation process that were the focus of exploration. These components included personal factors, such as therapeutic relationships and caregiver experiences, as well as wider organisational factors and systemic barriers, such as access.

Themes

Four themes were generated to describe the experiences of Māori when engaging with rehabilitation services: Māori expectations of culturally unsafe healthcare become a reality during rehabilitation; Whānau are crucial for navigating cultural collisions during the rehabilitation journey; Rehabilitation is made culturally safe by embracing Te Ao Māori me ōna tikanga; Rehabilitation is made culturally safe through mana-enhancing services. Te Ao Māori me ōna tikanga refers to the Māori worldview and the protocols and practices encompassed within it. Mana is a concept from Te Ao Māori that describes a force that dwells within an individual akin to prestige, power, or status [34,35]. To enhance mana is to empower Māori and recognise Māori ways of doing things.

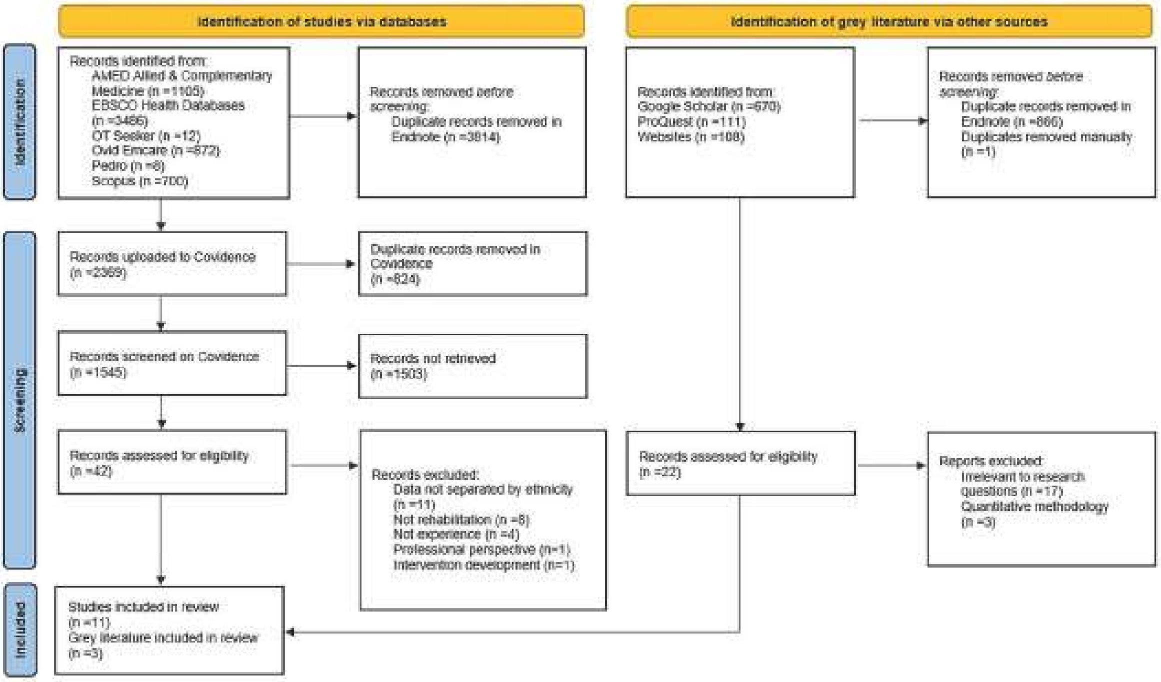

Figure 1. PRISMA Flow diagram demonstrating the study selection process.

Table 2. Summary of characteristics and main findings sourced from peer-reviewed journals.

Citation	Study Purpose	Research Design	Data Collection Method	Data Analysis Method	Population	Context	Main Findings
[37]	To explore the therapeutic alliance between patients and clinicians during stroke rehabilitation	Interpretive description	Interviews	Conventional content analysis	Individuals who had a stroke Age range 29-76 Māori $n=3$	Regional inpatient rehabilitation unit	• Reciprocal sharing of oneself and the involvement of whānau and can improve quality of engagement and outcomes • Māori values being compromised and clinicians making incorrect assumptions led to participants wanting to disengage from rehabilitation
[65]	To explore experiences of using rehabilitation equipment by Māori post stroke	Mixed methods	Interviews	Framework analysis using Te Whare Tapa Whā (a Māori health model)	Individuals who had a stroke Age range 49-58 Māori $n=4$	Participants had received rehabilitation post-stroke at a publicly funded hospital	• Participants found equipment can facilitate independence and helps to avoid embarrassment, particularly when using it re-engage in community life, a meaningful role or occupation • A relationship with a therapist, established through good communication skills and a positive attitude, helped with participation, engagement, trust and confidence
[66]	To understand Māori experiences of accessing injury-related healthcare services long-term	Longitudinal mixed methods Kaupapa Māori	Interviews	Thematic analysis	Individuals who had sustained an injury Age range 19-63 Māori $n=61$	A cohort recruited from the Prospective Outcomes of Injury study [67]	• Practical barriers that participants felt limited their ability to access healthcare services and rehabilitation included time constraints, juggling competing responsibilities, transport issues and inflexibility of services • Negative experiences with services left participants feeling disempowered. This was exacerbated by the exhaustion of having to initiate, self-advocate and coordinate their care without support
[68]	To examine the design requirements of a telehealth wheelchair assessment service	Mixed methods	Interviews and focus groups	Inductive thematic analysis and Māori-centred analysis	Individuals with neuromotor conditions who were wheelchair users Age range 36-55 Māori $n=3$	Wheelchair assessment service	• Participants felt culturally unsafe when clinicians omitted tikanga during home visits • Participants described the challenges they faced associated with disadvantage and marginalisation of their ethnicity coupled with their disability • Tele-wheelchair assessment was suggested to improve equitable and cultural access for Māori but would require substantial investment
[69]	To explore barriers to optimal stroke services for people with stroke and their whānau	Qualitative	Focus groups	Thematic analysis	Individuals who had a stroke and their whānau Age range 32-94 Māori $n=9$	Acute, rehabilitation and post-rehabilitation services	• Participants described a lack of Māori staff which was surprising to them given Māori have a high incidence of stroke • Participants had to access Māori health services outside the stroke service
[70]	To investigate the rehabilitation experiences of Māori who were reporting disability 24 months after an injury resulting in hospitalisation	Longitudinal mixed methods Kaupapa Māori	Interviews	Interpretive phenomenology analysis	Adults who had sustained an injury requiring hospitalisation Age range 37-71 Māori $n=12$	A cohort recruited from the Prospective Outcomes of Injury study [67]	• The injury impacted participants in different ways including daily life and occupations, relationships and whānau roles, employment, mental and emotional wellbeing • Some participants described coping mechanisms that helped them including whānau support, accessing clinicians when needed and accepting change

(Continued)

Table 2. Continued.

Citation	Study Purpose	Research Design	Data Collection Method	Data Analysis Method	Population	Context	Main Findings
[39]	To examine the factors that influence the uptake of pulmonary rehabilitation by Māori	Kaupapa Māori Abbreviated grounded theory	Interviews and focus groups	Constant comparative analysis	Individuals with COPD Age range 40-79 Māori $n = 15$	Outpatient rehabilitation programme (hospital- or marae-based)	• Past negative experiences influenced the decision to attend rehabilitation • The marae-based programme offered opportunities for culturally meaningful connection which facilitated wellbeing and fostered belief in the efficacy of rehabilitation • Participants placed great value on time spent engaging in whakawhanaungatanga, particularly with staff who were compassionate, caring and encouraging
[71]	To explore barriers and facilitators to accessing an outpatient musculoskeletal physiotherapy service	Qualitative	Interviews	General inductive analysis	Individuals with musculoskeletal conditions Age range 22-67 Māori $n = 7$	Outpatient physiotherapy (hospital or health centre)	• This study reported a lack of awareness among participants of the processes relating to attending physiotherapy or the role of a physiotherapist • Participants tended to put off going to see a physiotherapist until it was absolutely necessary • This study did not find any strong feelings of discrimination or stigma by participants
[32]	To explore the experiences of whānau Māori of engaging in a healthy lifestyle programme for children and adolescents	Kaupapa Māori-informed qualitative	Interviews	Thematic analysis	Whānau and children with weight issues Age range not reported, children included for interviews were ≥11 years old Māori $n = 32$	Health centre-based programme	• Whānau Māori experiences were found to be related to instances of racism, both past and present, and the ways in which whānau responded to racism • Whānau Māori reported when they received care that was respectful, compassionate, and kind this helped to overcome past experiences of racism
[33]	To understand the barriers and facilitators to engagement in healthy lifestyle programme for children and adolescents	Kaupapa Māori-informed qualitative	Interviews	Thematic analysis	Whānau and children with weight issues Age range not reported, children included for interviews were ≥11 years old Māori $n = 32$	Health centre-based programme	• Whānau Māori experiences were found to be related to racism. Past negative experiences could be mitigated by exposure to positive care • Some Māori perceive a genetic propensity to being overweight due to ethnicity. Whānau responded to this perception either by accepting it and not engaging in the programme or engaging to counteract perceptions related to genetics
[41]	To develop understandings of the experiences and what matters most to Māori for therapeutic connection during neurorehabilitation	Bicultural approach Kaupapa Māori	Focus groups	Māori research methods of analysis	Individuals with neurological conditions and their whānau Age range 19-70 Māori $n = 16$	Neurorehabilitation	• Participants identified that the wairua (spirit/vibe) and hononga of a connection underpinned encounters with rehabilitation professionals. These concepts were characterised by building trust and reciprocity • Participants wanted whānau to be acknowledged as part of the rehabilitation process

Table 3. Summary of study characteristics and main findings sourced from grey literature.

Citation	Study Purpose	Research Design	Data Collection Method	Data Analysis Method	Population	Context	Main Findings
[40]	To explore the experience of whānau as caregivers for an individual who had a stroke	Kaupapa Māori Interpretive description	Interviews	Thematic analysis	Whānau of individuals who had a stroke Age range 50-70, 2 grandchildren were included age range not reported Māori $n=7$ (7 whānau and 1 individual who had a stroke)	Post-stroke rehabilitation and support services	• Uptake of rehabilitation services by whānau was based on perceived usefulness and cultural appropriateness • Whānau reported the challenges associated with providing hands-on caregiver support • Culturally responsive services were described as those that acknowledge culture, tikanga and Māori language
[36]	To explore the experience of whānau as caregivers for an individual who had a traumatic brain injury	Kaupapa Māori Narrative inquiry	Interviews	Thematic analysis	Whānau of individuals who had a traumatic brain injury Age range 35-65 Māori $n=2$ (not all whānau members interviewed were Māori, all those who had a traumatic brain injury were Māori)	Acute, post-acute rehabilitation and community services	• Whānau struggled with trauma, emotional and psychological distress • Whānau acted as navigators of a health system that is complex, inflexible, and limited in its cultural responsiveness to Māori • The whānau unit both provided and required healing
[38]	To explore whānau Māori experiences of major trauma care and rehabilitation from injury to discharge home	Kaupapa Māori	Interviews	Not reported, supplementary methodology report could not be accessed	Individuals who had a major trauma and their whānau Age range 16-65+ Māori $n=28$ (21 individuals and 7 whānau)	Recruitment from the National Trauma Registry	• Fostering relationships and supporting whānau; communicating clearly; and a holistic approach contributed to a positive experience. When these considerations were absent whānau felt isolated, un-informed and undervalued • Whānau acted as informal caregivers, providing additional cultural support and care in a holistic way

Theme one: Māori expectations of culturally unsafe healthcare become a reality during rehabilitation

This theme encompasses the preconceived ideas that influenced the expectations of Māori when entering the rehabilitation journey. Distrust towards the health system stemmed from past negative experiences not only in the health sector but with any government run organisation, such as the police. Before starting rehabilitation, participants had a sense of disconnection. Māori expected to feel isolated among Pākehā and for there to be a limited understanding of Māori concepts in health services. Many participants had their expectations of alienation confirmed by the negative experiences they had during rehabilitation. Engagement in rehabilitation for Māori was constrained by Te Ao Pākehā - referring to the Eurocentric configuration of health services in Aotearoa New Zealand. Participants found the services they received to be individualised and disease-driven with little flexibility or consideration for whānau wellbeing. Participants noticed a lack of Māori staff and encountered under-resourced Māori health services. Many described difficulties connecting with rehabilitation in any culturally meaningful way, resulting in some cases, to withdrawal from care.

> …the services that he got were very westernised, there was a touch of Māori tradition but not a lot…his mum she very much does immerse herself in Māori culture… she stayed quite detached… If there was a bit more of a Māori element it would have created more of a connection with her… [36, p. 54]

The participants described the culturally incompetent care of rehabilitation professionals and talked about staff making incorrect assumptions, being made to feel unworthy of treatment and being on the receiving end of discrimination. Māori described rehabilitation professionals' communication style that was brief, cold, dismissive, and sterile. This way of communicating contradicted with Māori preferring to seek opportunities to create connections, a concept known as whakawhanaungatanga.

Another aspect of culturally unsafe care was clinician ignorance of the structural barriers that Māori faced and their impact on engagement with rehabilitation. Participants described the cumulative disadvantages that they experienced due to the combination of being Māori and having a physical disability. Such disadvantages included the intensification of negative societal perceptions and facing increased barriers to rehabilitation access. The lack of clinician understanding of wider systemic issues that Māori contend with was demonstrated in the following quote from a parent of one of the children engaging in a healthy lifestyle intervention for obesity:

> And that's what I said at the family group conference – 'I disagree with that [comment made by a staff member in relation to child's eating habits] because they were being fed. It might not be healthy to some people. But at least they were eating' [32, p. 673, Table 2]

Theme two: Whānau are crucial for navigating cultural collisions during the rehabilitation journey

This theme describes the essential roles that whānau hold during rehabilitation. For Māori, whānau includes both immediate and extended family groups. Whānau fought to ensure the best care for their loved one. There was a sense that the time whānau had available to support their loved one was reduced because of the additional roles they had to fulfil. At a time of high stress and vulnerability, whānau felt the additional pressure of having to help their loved one navigate a Te Ao Pākehā-driven system that clashed with Māori notions of health and wellbeing.

Whānau regularly acted as informal caregivers in the rehabilitation setting. The need for psychological, spiritual, and cultural support from whānau was emphasised frequently in the data. Participants felt issues such as cultural isolation and mental health were often inadequately addressed, therefore prolonging the healing process. In the absence of holistic support being provided by rehabilitation professionals, whānau stepped in to fulfil this need. This additional support served to keep their loved one engaged and motivated in rehabilitation, as depicted in the following quote.

> Whānau…supported me to stay…so it was everybody talking to me really…so I wouldn't rebuff against it, you know, keeping that engagement alive and trusting [37, p. 1078]

Whānau were often required to be advocates during rehabilitation. Whānau wanted to ensure access to appropriate services and care. Participants reported issues in dealing with processes that were messy, not intuitive and involved dealing with multiple service providers simultaneously who gave contradictory information. Whānau with a better understanding of how the health system operates fought for services that should already have been in place. Whānau also worked to uphold tikanga (cultural practices) during rehabilitation. Where a lack of cultural awareness was displayed by clinicians, whānau promoted Māori perspectives and ways of doing things in support of their loved one.

Several of the studies discussed the cultural collisions between Te Ao Pākehā client-centred approach and Te Ao Māori collectivism. Whānau recognised the importance of being involved from the early stages of rehabilitation because once their loved one was discharged, they would be responsible for ongoing care. Participants often described instances where whānau were left out, despite repeatedly asking for them to be involved.

> All the way through, any issue we've had has always been lack of consultation. So that we can be part of it. That's all we're asking. We'll be there any time they want it but no, they had it somewhere else, and decisions made… I asked for the [meeting] to be around my bed with my husband present, but it didn't happen [38, p. 17]

The extra roles that whānau had in advocating for their loved one and providing additional care and holistic support appeared to go unrecognised. Because rehabilitation did not prioritise collective wellbeing of the whānau their needs were not addressed, and it tended to go unnoticed that the whānau group also required healing.

Theme three: Rehabilitation is made culturally safe by embracing Te Ao Māori me ōna tikanga

This theme encompasses solutions for cultural safety found in the data related to incorporating and enacting Māori ways of doing things during rehabilitation. Multiple interconnecting concepts from Te Ao Māori were described in their application to the rehabilitation space: manaakitanga (providing care and support), whakawhanaungatanga (creating connections), hononga (establishing bonds), kotahitanga (working together in unity), tikanga (cultural practices) and wairuatanga (processes that hold spiritual meaning). The importance of tikanga as a source for recovery was consistently emphasised by participants.

> And it just that whanaungatanga (connecting with others) time is very important, how everyone feels…it's kind of down to our level, and it's good…bringing the tikanga aspect side of things, tikanga Māori…how we do things, who with, and in a place that we feel good in being [39, p. 495]

Increasing access to and resources for Māori health services was suggested. Māori health services incorporated cultural approaches to healing and medicine to achieve wellbeing during rehabilitation. Increasing the Māori health workforce was also proposed. Māori clinicians had a positive impact during rehabilitation and were appreciated for their compassion and understanding. Participants reported that the approach and cultural familiarity of Māori staff put them at ease during rehabilitation and increased their feelings of connection.

> Māori feel comfortable around Māori, I don't think that's a racial thing, it's just they should know how Māori work [40, p. 97]

The most strongly promoted solution relating to Te Ao Māori me ōna tikanga was the creation of culturally meaningful connections. Participants sought opportunities for whakawhanaungatanga during rehabilitation and valued time spent on developing connections with staff and services. Connections supported healing for Māori and facilitated increased participation and engagement in rehabilitation. When a positive connection was formed between participants and clinicians it led to a belief in the efficacy of rehabilitation and instilled confidence for the journey ahead. Participants felt comfortable and more relaxed with clinicians once a connection was established. Meaningful connections also helped to ease the impact of past unpleasant experiences and overcome negative preconceptions about rehabilitation and the wider health system.

Theme four: Rehabilitation is made culturally safe through mana-enhancing services

Themes three and four are inextricably linked. Clinicians could not embrace Te Ao Māori me ōna tikanga without working in a mana-enhancing way and vice versa. Services that enhanced mana were empowering, collaborative and whānau-centred. Participants requested that clinicians work as one with their whānau so that they would be included and recognised as integral members of the rehabilitation team. A collaborative communication style was described as one that was respectful, reciprocal, and open. The studies strongly recommended whānau inclusion at all stages of the rehabilitation journey, with appointed whānau decision makers being identified and consistent communication from staff.

> Recognise whānau as a resource for recovery…they're actually healing faster, [with] us as a whānau being here. We're not getting in the way, we're not a hindrance, we're not here to be a burden…we're here 'cause it supports them [41, p. 15]

Working collaboratively was advised so that rehabilitation could be made relevant for Māori. During initial assessments and whakawhanaungatanga, seeking information about meaningful daily activities, valued roles within the whānau and important environmental contexts served to connect participants with their rehabilitation. Participants felt that the barriers they faced, such as practical access issues, could be addressed when working collaboratively. It was recommended that clinicians actively seek information from Māori about the barriers they face as they are less likely to offer it spontaneously due to embarrassment and not wanting to be a nuisance. Incorporating meaningful activities as part of therapy and to achieve a goal was important for participants. Engaging in meaningful activities created a more relaxed and relevant interaction. Rehabilitation was enhanced when it took place in meaningful environments and cultural contexts.

> It meant that they were listening. That's that connection. It wasn't just getting pulled out of the sky and saying 'this is the best for you because

> this is what's happened to you'…When you're included in the solution and are able to participate in the solution, I think that's a great thing [37, p. 1078]

The included studies recommended ways in which clinicians could be culturally safe to provide mana-enhancing services. The studies encouraged rehabilitation professionals to be self-aware and self-reflective, particularly in relation to their culture and biases. Culturally safe clinicians were described as those who were conscious of the power relationship that inherently existed between themselves and Māori patients. Culturally safe clinicians actively incorporated and validated Te Ao Māori me ōna tikanga, as discussed in the previous theme. Several of the studies discussed the tendency to assume that health systems and the services they provide were culturally neutral. The studies advised that culturally safe clinicians recognise the historical impact of colonisation on the set up of the health system in Aotearoa New Zealand and the instilled institutional racism that accompanies this.

Discussion

This scoping review provides a thematic synthesis of the experiences described by Māori during their physical rehabilitation and proposes solutions that can assist in enhancing the cultural safety of rehabilitation for Māori. The results found that Māori expect to encounter and subsequently experience rehabilitation services that are culturally alien. We highlight that whānau are integral for Māori to navigate the nuances and complex processes of rehabilitation. The proposed solutions for cultural safety describe how rehabilitation professionals can enhance the mana of Māori consumers and embrace Māori approaches to health and wellbeing. Cultural safety has been recognised as a pathway for transformative change in the health system towards decolonisation and the eradication of health inequities [42,43]. Therefore, it is essential that physical rehabilitation services in Aotearoa New Zealand recognise and enact their responsibility to embed cultural safety throughout the rehabilitation journey.

The findings from this review challenge rehabilitation professionals to disrupt expectations that Māori have of culturally unsafe care. We suggest steps that can be taken to make meaningful change. One step towards culturally safe rehabilitation is to increase clinician awareness of what has caused intergenerational distrust of health services. These issues stem from colonisation and breaches of Te Tiriti that link to the poor outcomes and healthcare encounters that Māori experience [8]. Clinicians who are cognisant of health inequities, as well as the historical and contemporary effects of colonisation, can prioritise the provision of culturally safe care. The demonstration of sensitivity to such matters in clinical interactions has the power to negate preconceptions and help to overcome past negative experiences [39,32].

Our review found that involving whānau made a critical difference for Māori during rehabilitation, leading to a raft of positive outcomes. Such benefits included increased participation and engagement and ensured the provision of culturally appropriate care. Autonomy and independence are taken for granted in rehabilitation contexts as a universally sought after goal [44]. An essential step, therefore, towards countering individualistic rehabilitation models is to adopt a whānau-centred approach [45]. Whānau-centred care enables whānau agency over the rehabilitation process and focuses on individual health within the whānau context, as well as the wellbeing of the whānau collective [46,47]. Rehabilitation services can address whānau needs through provision of accommodation, funding for kai and transport, and creating welcoming clinical spaces [38,45]. Delivery of home-based rehabilitation has also been suggested as a way of facilitating greater whānau inclusion [48,49].

Whakawhanaungatanga (creating connections) was the most frequently recommended solution from this review for the incorporation of tikanga (cultural practices) during rehabilitation. The concept of therapeutic rapport is well-known in rehabilitation. Whakawhanaungatanga extends beyond building rapport and simply introducing oneself, to a deeper connection that is vital for Māori [46,49]. Ways in which whakawhanaungatanga can be cultivated include correct name pronunciation, reciprocal sharing of personal information and finding connection through people and place [39,38]. Continuity of care and allowing time to form connections are aspects of whakawhanaungatanga that have been emphasised [50,51]. Because rehabilitation clinicians occupy intimate spaces in the lives of Māori patients when they are at their most vulnerable, it is essential that whakawhanaungatanga is prioritised [42].

In terms of mana-enhancing services, it is important that when providing rehabilitation, clinicians recognise Māori diversity [52]. Not all Māori share the same life experience or engage with Te Ao Māori me ōna tikanga in the same way. Understanding the influence of colonisation on migration and urbanisation of Māori can help clinicians to avoid typifying Māori as a singular group rather than as a culturally diverse group of people. Assumptions about Māori can be harmful and diminish mana [19]. Flexibility of approach should be offered as part of rehabilitation, enabling choice and empowering Māori to be Māori as guided by them [18]. Collaboration through shared decision-making and whānau-centred goal setting, approaches that align with rehabilitation best practice, would ensure the needs and preferences of Māori are known and met throughout rehabilitation [53].

Participants from this study appreciated the familiarity and comfort of working with other Māori who could understand their perspective and cultural position, leading to a natural ease when forming connections. While this perspective is not new, our review draws attention to the pressing need to develop the Māori allied health rehabilitation workforce. Statistics show that Māori remain underrepresented across groups of allied health professionals compared to their proportion of the general population of Aotearoa New Zealand (17%). In 2020, 8% of occupational therapists and 7% of physiotherapists identified as Māori [54]. Studies have shown the Māori allied health students and new graduates encounter racism and struggle with a lack of cultural support [55,56]. Pathways for Māori into allied health professions and the retention of clinicians once qualified are areas of workforce development that require close attention [55,57].

Increasing the Māori health workforce, however, does not absolve non-Māori clinicians from engaging with Te Ao Māori me ōna tikanga. Positive encounters with non-Māori clinicians who incorporated tikanga were described in the studies. Cultural safety training has the potential to address gaps in clinician knowledge related to culturally appropriate practice [58,59]. There has been an international surge in the implementation of cultural safety training over the last ten years [60]. This too can be seen in the allied health competencies and rehabilitation policy of Aotearoa New Zealand [9,61,62]. Evidence to support the efficacy of cultural safety training is lacking with evaluations tending to focus on learner experience alone [60,63]. Further research exploring the impact of cultural safety training from a service user perspective would be beneficial.

It is interesting to note that numerous studies excluded from this review reported to have Māori participants as part of their cohort. Such studies did not separate their results by ethnicity making it impossible to decipher Māori experiences from those of non-Māori. Māori experiences not being separated from the whole cohort indicates an almost tokenistic inclusion that lacks depth of analysis. While it is positive that Māori are actively being included in health research, our review indicates insufficient reporting of the outcomes and experiences that are unique to Māori.

Limitations

It has been noted that single-reviewer screening can limit the accuracy of literature searches [64]. The screening process for this review was completed by a single reviewer and may have resulted in omission of eligible literature. Additionally, the definitions of health and rehabilitation used in the search strategy may have limited the studies available for inclusion. The World Health Organisation definition of rehabilitation emphasises the independence of individuals rather than collective wellbeing. The search for physical conditions in isolation contrasts with Māori holistic concepts of health and wellbeing, where physical health cannot be separated from emotional, spiritual and whānau wellbeing. Using these definitions in the search for literature may have resulted in only finding studies that define health in a similar, Eurocentric fashion. Future reviews may benefit from inclusion of search terms relating to holistic and collective wellbeing.

Conclusion

This review synthesised Māori experiences of physical rehabilitation in Aotearoa New Zealand. It is apparent that rehabilitation providers, as in other healthcare settings, are not consistently delivering culturally safe care for Māori. Rehabilitation services are challenged to create a safe space for Māori and deliver whānau-centred care. In this way Māori and their whānau can focus their energy on healing and recovery without having to navigate cultural collisions throughout the rehabilitation journey.

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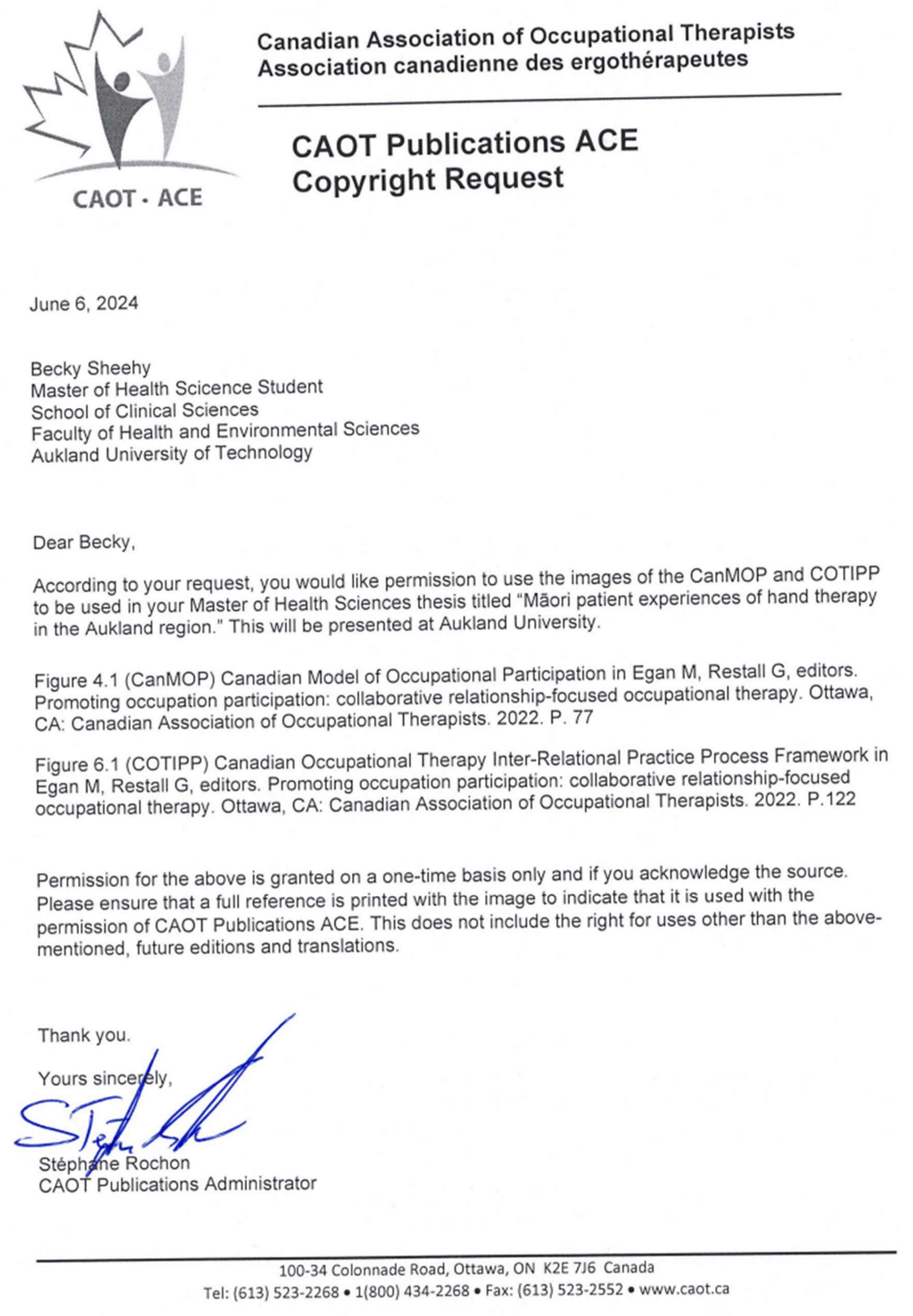
Appendix P

Canadian Association of Occupational Therapist Permission to Reprint Images



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Copyright Request

June 6, 2024

Becky Sheehy
Master of Health Scicence Student
School of Clinical Sciences
Faculty of Health and Environmental Sciences
Aukland University of Technology

Dear Becky,

According to your request, you would like permission to use the images of the CanMOP and COTIPP to be used in your Master of Health Sciences thesis titled "Māori patient experiences of hand therapy in the Aukland region." This will be presented at Aukland University.

Figure 4.1 (CanMOP) Canadian Model of Occupational Participation in Egan M, Restall G, editors. Promoting occupation participation: collaborative relationship-focused occupational therapy. Ottawa, CA: Canadian Association of Occupational Therapists. 2022. P. 77

Figure 6.1 (COTIPP) Canadian Occupational Therapy Inter-Relational Practice Process Framework in Egan M, Restall G, editors. Promoting occupation participation: collaborative relationship-focused occupational therapy. Ottawa, CA: Canadian Association of Occupational Therapists. 2022. P.122

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Appendix Q

Summary of Qualitative Study Findings

Summary of Findings

Māori experiences of hand therapy in Tāmaki Makaurau

What was this research about?

By completing this study, I aimed to learn about the experiences of Māori hand therapy patients in Tāmaki Makaurau and explore solutions proposed for enhancing the ways hand therapy services are delivered for Māori

How was the study completed?

I interviewed 15 participants from different hand therapy clinics in Tāmaki Makaurau

♀ 13 wāhine

♂ 2 tāne

Aged 22 - 64

What was found?

I read the interview transcripts and compared participant experiences
Five themes were identified and are summarised below
Quotes from the interviews accompany each theme

What happens next?

I will share the results of this study with hand therapists across Aotearoa. It is intended that the findings will provide information to hand therapists that can help to address issues that are of importance to Māori patients. I hope that the findings will guide hand therapists in the delivery of services that are more welcoming, responsive and culturally safe for Māori

I will be writing an article about the findings for publication in an academic journal. If you would like a copy of this when it is published, please let me know and I will send it to you

Approved by the Auckland University of Technology Ethics Committee 21/03/2023 AUTEC Reference number 23/12.

Theme One: Building a bridge to hīkoi hand in hand

- The connection formed between patients and hand therapists allowed them to hīkoi together towards recovery
- Participants encouraged hand therapists to consider their position at the start of the journey with Māori patients, advising self-reflection relating to their own culture
- This connection was dependent on first impressions, the feel and wairua of a clinic and staff, and time taken for whakawhanaungatanga

> **When it gets to them sharing some of their story too…that's what I've loved about my hand therapist. I feel that I know some of who she is as a person**

Theme 2: Keeping negative health experiences at arm's length

- Participants described negative encounters with hand therapy and other health services, including feeling belittled, dismissed, misunderstood, and expecting to face discrimination
- Hand therapy was described as having unique traits that meant it was different from other health settings and provided opportunities for more positive health experiences
- These unique hand therapy traits included the specialist knowledge of hand therapists, hand injuries being easier to deal with than other diagnoses, and hand therapists being a touch point for patients

> **Whenever you've got contact with the patient, you're the touch point…you're part of the repair process with their body. That gives you a lot more of a lever than anybody else might do**

Theme 3: Cultural connections are straight up magic!

- Participants talked about the powerful and important impact of cultural connections when they were present as part of their health journey
- Including whānau, the use of te reo Māori, incorporating tikanga and displaying visual aspects of Te Ao Māori were encouraged by participants
- Participants talked about the need for hand therapists to cater to diverse Māori, be genuine in their actions, and ensure Te Ao Māori filters through all aspects of service provision

> **Out in the foyer you can hear waiata Māori and they start with a karakia…So when I came to Auckland, I never saw anything like that, apart from the door's got a label of a door on it…but where are the actual Māori…or the greeting in Māori…where's the warm welcome to this place**

Theme 4: The hand therapist as a taonga

- The relationship with the hand therapist was given a high status and held as a taonga by participants who had a positive hand therapy experience
- The meaningful relationship led to positive outcomes for participants including trust and respect, tailored treatment based on important goals, and increased participation and enjoyment
- Participants advised that the taonga of the relationship with a hand therapist gave opportunities to provide holistic, culturally appropriate, and mana-enhancing care for Māori

> **We'd have conversations…what my goals are, what my hobbies are, how it's affecting the rest of my life. I think that was really cool and definitely helped…I enjoyed going to hand therapy, stayed with it longer and felt it was really catered**

Theme 5: Hei haumaru kei aku ringa

- The title of this theme is an adaptation of the whakataukī *hei kai kei aku ringa*. The meaning of this whakataukī speaks to using the resources available at hand to succeed
- This theme describes solutions for wrap-around hand therapy services that provide haumaru|shelter for Māori and whānau wellbeing
- Participants suggested moving beyond hand therapy that focuses only on an injury to incorporating wider health factors including prevention, wellness, access issues, whānau support and cultural considerations

> **Just a bit of dialogue, showing that you will acknowledge culture and values and beliefs throughout the sessions. There's nothing like that…I think just a few simple questions would make a lot of difference to how comfortable people feel…at least trying to provide some cultural safety**