Māori envisioning physiotherapy education as a place of thriving at Auckland University of Technology

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Abstract

The low numbers of Māori physiotherapists presents a challenge for achieving health equity in Aotearoa. This research aimed to explore strategies for improving retention and success rates among Māori students in physiotherapy education, as well as facilitating culturally responsive transformative change within the undergraduate physiotherapy programme at Auckland University of Technology (AUT), Aotearoa, New Zealand. A collaborative research approach involving Māori (Indigenous peoples of Aotearoa) and Pākehā and Tauiwi was pursued to envision physiotherapy education as a space of thriving that will benefit future generations of Māori physiotherapists.

Centring Māori voice was key to meeting the aims of this research. A Māori-centred approach based on the principles of kaupapa Māori research and appreciative inquiry was adopted to understand Māori physiotherapy graduate (roopu rangahau) experiences of thriving within physiotherapy education. In the first two stages of the research a culturally adapted 4-D (Discovery, Dream, Design and Destiny) approach to appreciative inquiry was implemented. Initially roopu rangahau accentuated positive aspects of their journey, in kōrero (conversations) kanohi ki te kanohi (face to face) then hui (group discussions) held online because of COVID-19 restrictions. These discoveries were incorporated into dreams of physiotherapy education in the future, followed by the design of solutions to transform physiotherapy education into a space that enables thriving. The final stage involved preparing Pākehā and Tauiwi physiotherapy educators for transformation. Data analysis was initially conducted through a collaborative process of shared analysis with roopu rangahau. Five key themes of thriving were generated: importance of whānau (extended family), sense of place, promotion of cultural affirmation, incorporating cultural pedagogy, and the provision of aspirational opportunities. At the heart of these themes lies the Māori concept of mauri ora, which embodies the idea of life essence flourishing with potential. Enhancing mauri serves as both the inspiration and foundation for cultural change within physiotherapy education and across the wider university setting.

Cultural transformation within physiotherapy education is essential for enhancing the retention and success of Māori students. Relationality, grounded in the principle of whanaungatanga (a concept encompassing kinship and connectedness) is recognised as the philosophy of change needed to facilitate transformation, turning physiotherapy education into a space of thriving. Building relationships founded on reciprocity and trust is paramount for fostering success and sense of belonging of Māori students throughout their educational journeys. Honouring this goal necessitates Pākehā and Tauiwi educators prioritising culturally responsive relationships

with Māori students, whānau, and communities. Another essential component of transformation is to incorporate Indigenous knowledges, perspectives, and values throughout physiotherapy education. Equally important is the creation of educational spaces that foster Māori identity and encourage active engagement within teaching and learning environments. Culturally safe educational spaces are vital for meaningful and sustained change.

The research highlights the importance of collaborating with Māori to devise culturally appropriate solutions for transformative change within physiotherapy education at AUT. By elevating Māori voices to shape and guide the vision for physiotherapy education, the research has generated recommendations for change not only within the AUT physiotherapy programme but across tertiary education and the Physiotherapy Board. These recommendations, that aim to normalise Māori ways of being and ways of knowing, are poised to enhance well-being and academic achievement for all physiotherapy students in the future, and support the transition of Māori into the health workforce. However, realising this innovative change will demand courage and commitment from physiotherapy educators and university leaders willing to be guided by pathways that honour te Tiriti o Waitangi.

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Attestation of Authorship

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

29th February 2024

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Signature Date

Ethics Approval

Ethics approval for this research was granted by the Auckland University of Technology Ethics Committee (AUTEC) on August 21, 2020 for 20/170: A participatory action research (PAR) study to enhance the experience of Māori physiotherapy students (Appendix A).

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This thesis is dedicated with love to my parents John and Elizabeth who both died too soon when they still had much more to offer. Your spirits are forever in my heart.

Pepeha: The story of places and people I am connected to

Ko Kaiterau te maunga

Ko Kowhai te awa

Nō Kaikōura ahau

Ko John Caldwell tōku pāpā

Ko Elizabeth Caldwell tōku māmā

Ko Grant Mawston toku hoa rangatira, no Te Atiawa tō a iwi

Ko Izzy raua

Ko Charlotte ngā kotiro

Ko Jill Caldwell tōku ingoa

Tena koutou katoa

My beautiful hometown of Kaikōura; nestled between Kā Tiritiri o te Moana (the mountainous ranges of the Southern Alps) and Te Moana-nui-ā-kiwa (the Pacific Ocean), in Te Waipounamu (South Island), Aotearoa. Photo credit Jill Caldwell, 2019.

Nobody cares how much you know until they know how much you care.

(Theodore Roosevelt, Nobel Peace prize winner,1906)

Preamble

This research acknowledges that te Tiriti o Waitangi signed in 1840 is the founding document of the colonial state of Aotearoa that reaffirms Māori sovereignty (rangatiratanga) and guarantees the protection of rights and aspirations of Māori as tangata whenua (Indigenous peoples of the land of Aotearoa) (Came et al., 2021; Healy et al., 2012). Alongside the Declaration on the Rights of Indigenous Peoples[1] (United Nations General Assembly, 2007), te Tiriti o Waitangi (hereafter referred to te Tiriti throughout this thesis) affords protection to Māori previously asserted in He Whakaputanga in 1835, the Declaration of Independence (Healy et al., 2012; Matike Mai Aotearoa, 2016).

The intentional use of te Tiriti throughout this thesis is to acknowledge that the Māori text of te Tiriti is regarded as the authoritative version of the agreements reached between hapū and the British Crown (Healy et al., 2012). International treaty law and contra proferentum dictate that in the case of treaties where there is an Indigenous and English version, the Indigenous version of the treaty is considered legally binding (Smith, 1999). The Māori text is the version that most Rangatira (leaders) signed (Berghan et al., 2017).

These rights guaranteed to Māori in te Tiriti were considered inalienable. Yet, for most of the colonised history of Aotearoa, Māori have been denied these rights by the Crown (Berghan et al., 2017; Healy et al., 2012; Reid et al., 2019). Consistent and ongoing breaches of te Tiriti by the Crown has led to the dramatic decline of Māori, while Pākehā have benefitted from unearned privileges bestowed on them (Reid et al., 2019). The ramifications of this intergenerational trauma have been passed to the current generations of Māori who continue to carry the burden of the Crown's unmet guarantees and promises (Healy et al., 2012; Hobbs et al., 2019; Mutu, 2019; Waitangi Tribunal, 2014). The effects of colonisation are exemplified by the loss of cultural resources, knowledge, and identity (Moewaka Barnes & McCreanor, 2019; Pihama et al., 2014). As a society that continues to be governed by a westernised worldview, the continual devaluing of Māori by Pākehā and Tauiwi has negatively impacted Māori politically, economically, culturally, and socially (Came & McCreanor, 2015; Gall et al., 2021; Harris et al., 2006; Health Quality & Safety Commission New Zealand, 2019; Hobbs et al., 2019; Smith, 1999). There is substantive evidence that ethnic inequities such as a lower life

[1] United Nations declaration on the Rights of Indigenous Peoples (UNDIP) is an international human rights document. It includes the right to self-determination, culture and identity, and rights to education, economic development, religious customs, health and language (Te Puni Kōkiri Ministry of Māori Development, www.tpk.govt.nz accessed November 10, 2022). Although not initially, the UNDIP was subsequently endorsed by the New Zealand Government in 2010.

expectancy, poorer education and health outcomes are a significant issue for Māori (Curtis et al., 2023; Health Quality & Safety Commission New Zealand, 2019; Hobbs et al., 2019; Robson & Harris, 2007). The aim of this research is to disrupt these continuing impacts of colonisation within the health and tertiary education sectors.

The promises embedded within te Tiriti are relevant to our contemporary society. Through its aspirations of inclusion and justice, te Tiriti provides a framework with which to work together with Māori to address the burden of the inequities experienced by Māori so that outcomes for Māori are more reflective of an equitable society (Came et al., 2017). The current research aimed to collaborate with Māori and move forward together in knowledge and understanding to bring about transformative change within physiotherapy education that will benefit the next generation of Māori physiotherapy students. Te Tiriti provided the platform to achieving this outcome. Critical to this research was fostering collaboration within a cultural context that did not diminish cultural identity and enabled Māori to self-determine their tino-rangatiratanga (sovereignty), while maintaining autonomy and independence (Durie, 1994, 2005a; Pihama et al., 2002). How te Tiriti is honoured is outlined in the chapters that follow.

Chapter 1

'Poipoia te kakano kia puawai'

Nurture the seed and it will blossom. (Author unknown)

1.1 Introduction

This is a professional doctoral[2] thesis centred on guiding culturally responsive change within a physiotherapy undergraduate degree programme at the Auckland University of Technology (hereafter referred to as AUT), Aotearoa New Zealand (hereafter referred to as Aotearoa). The research sits within the context of health and physiotherapy education within Aotearoa. The rationale was to understand how to develop a more inclusive physiotherapy education for Māori (Indigenous peoples of Aotearoa) that facilitates thriving. In Aotearoa, Māori face significant challenges at all levels of education—recruitment, retention, and success. These issues are no different for Māori undertaking physiotherapy education and have further implications for Māori physiotherapy workforce development. An important outcome of this research is to improve equity in graduate outcomes and support Māori student success in physiotherapy education. Informing my own local domain of practice as a Pākehā physiotherapy educator, so that Māori students can be better supported to achieve their aspirations and thrive during their experiences of physiotherapy education, is also a fundamental part of this research. Facilitating culturally based change within physiotherapy education may support the development of a culturally safe physiotherapy workforce that, in the future, responds more appropriately and effectively to the healthcare needs of Māori and their communities.

To inform cultural change within physiotherapy education requires privileging the voices of Māori. Engaging with and working alongside Māori with experience as students of the programme under investigation was integral to understanding how to further improve Māori student participation and engagement within physiotherapy education. Meeting the aims of the research relied on the guidance from a research whānau (Māori advisory group established for this research) to foster a relational-based research environment grounded in Māori values and processes where Māori could play a key role in self-determining a future physiotherapy education that is more inclusive and responsive to Māori. To this end,

[2] The aim of professional doctorates, otherwise known as second generation doctorates, is to transform practice through knowledge generation and application in the workplace (c.f., Rolfe and Davies (2009)).

participatory action research, conducted through the lens of appreciative inquiry, integrated within a Māori-centred research framework, provided the pathway to explore how to develop a future physiotherapy programme where Māori can realise their aspirations and reach their potential as Māori (Cooperrider et al., 2008; Durie et al., 2012; Patton, 2002; Smith, 1999).

I begin this chapter by introducing the profession of physiotherapy and its role within the health system, and the factors that impact physiotherapy education. The experience of Māori students within the tertiary education is briefly introduced along with what has drawn me to undertake this research. Because this research is positioned in Aotearoa, there are relevant broader contexts that also require an introduction. I discuss te Tiriti; the impacts of colonisation; health inequity; the Māori health workforce; and the role of tertiary health education to improve health outcomes. Next, I describe the contextual and personal factors that have motivated me to undertake this research by first locating myself as a Pākehā physiotherapy educator within the AUT physiotherapy programme, the place of my employment, followed by sharing personal reflections. Lastly, the purpose and the significance of the research is outlined. At the end of this chapter, thesis organisation and terminology regularly adopted in this thesis are explained.

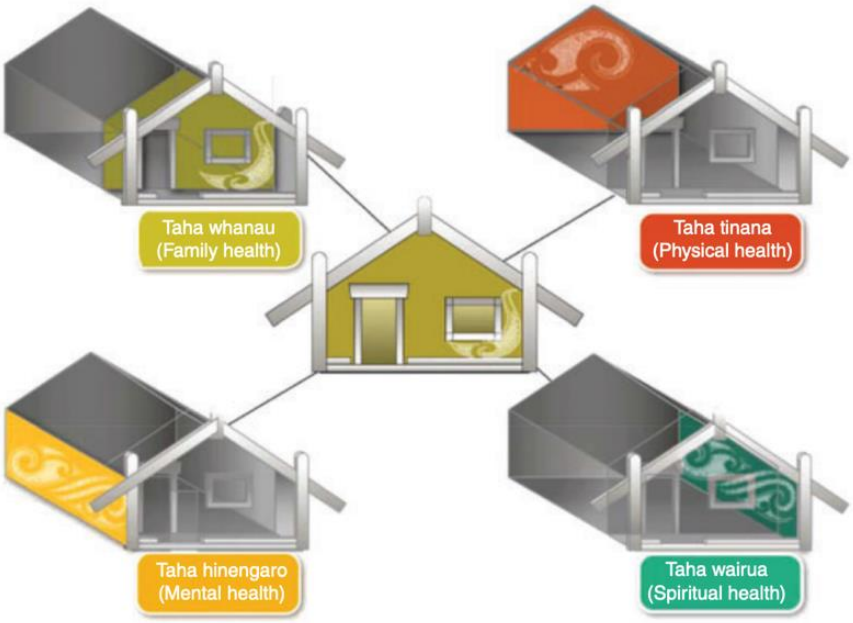
1.2 The context: Physiotherapy practice in Aotearoa

The practice of physiotherapy is part of the health system in Aotearoa. Physiotherapists can help people at any stage of life in the spheres of health promotion, prevention, intervention, and rehabilitation (World Physiotherapy, 2023). In Aotearoa, physiotherapists are regarded as a 'highly skilled, trusted, and evidence-based workforce' (Physiotherapy New Zealand, 2023b). The environments within which physiotherapists are employed include public (hospital) settings and private practice (Physiotherapy Board of New Zealand, 2023b). Regardless of the area of practice, supporting effective health outcomes through developing a therapeutic relationship with patients is considered central to physiotherapy practice and enhancing clinical outcomes (Hall et al., 2010; Rodríguez-Nogueira et al., 2022). Physiotherapists aim to deliver quality care that is congruent with the needs and expectations of their patients; in Aotearoa, person and whānau centric care is considered one of the strengths of physiotherapist practice (Physiotherapy New Zealand, 2023a). However, this has not always been the case, as historically the practice of physiotherapy worldwide has been based on western biomedical models of health, attributing biomechanical causal factors to pain and dysfunction (Main et al., 2006). The western assumption that the mind and body are separate, emphasises that the body works as a machine, resulting in a physical symptoms-based approach to patient care (Bright et al., 2015; Nicholls & Gibson, 2010; Nicholls & Larmer, 2005).

A Māori perspective of health is unique. It is grounded in Māori ways of knowing and seeing the world (Durie, 1994). As such, Māori views of health are integrated with their identity and are incorporated with physical, spiritual, mental, and family aspects of health (Durie, 1985). This holistic view of health has been reflected in many Māori models of health. One of the more well-known models is Te Whare Tapa Whā, a four-sided wharenui (meeting house) (refer Fig. 1), where each wall represents the foundations of hauora (overall health and well-being) (Durie, 1985). These important dimensions of hauora include: taha wairua (spiritual aspect and connection), taha whānau (family and social aspects), taha hinengaro (mental and emotional well-being), and taha tinana (physical aspect) (Durie, 1994).

Figure 1

Te Whare Tapa Whā (Māori model of health)



Note: Diagram from (Durie, 1994)

When these four dimensions are in balance with each other, this results in thriving (Durie, 1985). Health-care practices that centre on Māori worldviews, and successfully incorporate the tenants of vitality, whānau, and well-being, can positively impact health outcomes for Māori (Durie, 2001). The more biomedical or depersonalised approach of westernised care has not adequately supported the health and well-being of Māori and has been attributed with poorer health outcomes for Māori (Graham & Masters-Awatere, 2020; Ramsden, 1993; Reid & Robson, 2006; Waitangi Tribunal, 2019).

Legislative requirements of physiotherapy

Physiotherapists in Aotearoa are registered and regulated healthcare professionals. The health system in Aotearoa regulates health professionals under the Health Practitioners Competence Assurance Act 2003[3] (New Zealand Government, 2003). Physiotherapists must, therefore, meet ethical and legal obligations to ensure the health and safety of the public is protected (New Zealand Government, 2003).

The Physiotherapy Board of New Zealand is the statutory body for the practice of physiotherapy. The standard expected of registered physiotherapists is guided by professional standards outlined in the Aotearoa New Zealand Physiotherapy Code of Ethics and Professional Conduct, and Physiotherapy Standards and Physiotherapy Practice Thresholds[4] (Physiotherapy Board of New Zealand, 2022b). All physiotherapists must uphold the physiotherapy standards as outlined by the Board to be registered and practice in Aotearoa.

Honouring te Tiriti is also essential to achieving health equity within the healthcare environment of Aotearoa (Waitangi Tribunal, 2019). The promises embedded within te Tiriti ensure hapū have the same citizenship rights as British, including rights to health. This said, it is a requirement for physiotherapists as regulated health practitioners to engage with and honour te Tiriti, and deliver health services in ways that support Māori to express agency and voice resulting in equitable health outcomes for Māori and their whānau (Heke et al., 2019; Ministry of Health, 2023a; New Zealand Government, 2003; Physiotherapy Board of New Zealand, 2022b).

1.2.1 Health inequity

In Aotearoa, Māori have the poorest health status of any ethnic group. This has been attributed to a range of historical, social, and economic influences (Anderson et al., 2006; Bramley et al., 2005; Harris et al., 2006; Ministry of Health, 2015, 2019; Robson & Harris, 2007; Waitangi Tribunal, 2019). It is argued that health services and care provided for Māori whānau are ineffective due to the dominance of westernised based approaches to leadership and healthcare delivery (Waitangi Tribunal, 2019). Findings from the Health and Disability System Review (2020) and the Waitangi Tribunal's (2019) Hauora Kaupapa report 'Health Services and

[3] Health Practitioners Competence Assurance Act 2003 (HPCA Act 2003) is a leglislative framework that aims to ensure consistency of professions regulated by the Act have practitioners that are competent and fit to practice (New Zealand Government, 2003).

[4] Standards are determined by the physiotherapy Board and are a required competence of all physiotherapists under section 118(i) of the HPCA Act 2003.

Outcomes Inquiry' clearly state that Aotearoa's health system[5] is failing Māori. The Crown's failure to deliver equitable health outcomes for Māori is considered a breach of te Tiriti (Waitangi Tribunal, 2019).

1.2.2 A changing health environment

Over a number of years, successive governments within Aotearoa have aimed to improve health equity, as reflected in a number of strategies, policies, and practices (Ministry of Health, 2003a, 2014, 2016, 2017, 2020b, 2023a). Internationally, renowned experts in equitable healthcare for Indigenous peoples state that for healthcare to be effective for Indigenous peoples requires health professionals acquiring specialised knowledges and skills (Jones et al., 2019). The provision of culturally safe healthcare is fundamental and requires understanding of the sociocultural dimensions underlying a patient's health, values, beliefs, and behaviours (Brady et al., 2016; DeSouza, 2008; Heke et al., 2019; Main et al., 2006; Ramsden, 2002; Wilson et al., 2018). The concept of culturally safe practice implies that there is a reciprocal obligation of accountability and responsibility between practitioners and people receiving care (Ramsden, 1993). To improve health equity for Māori, health practitioners must demonstrate cultural and political competencies which include reflecting on their own cultural beliefs and values, biases, and practices (Curtis et al., 2019). In doing so, Māori communities are afforded care that is best suited to Māori needs. With health inequities more prevalent for Māori, this suggests that current healthcare practice is insufficient and that health practitioners, in general, are not culturally safe (Waitangi Tribunal, 2019).

To strengthen equitable health outcomes for Māori, a renewed focus on health equity for Māori was announced by the Ministry of Health (2022). The evolution of two new health entities called Te Whatu Ora, Health New Zealand and Te Aka Whai Ora (Māori Health Authority)[6] is one of the most significant health system changes in the recent history of Aotearoa, and seeks to "transform the health sector to create a more equitable accessible cohesive and people centred system" (Ministry of Health, 2022), with the primary aim of improving the health and well-being of everyone in Aotearoa. While, in theory, the establishment of a Māori health authority has been applauded by Māori, it has been suggested that a Māori health authority can only be transformational for Māori health if it is a leader, not just a partner in terms of the decision making that is needed to make an impact for Māori and their communities (Came & O'Sullivan,

[5] In response to the reports of Aotearoa's heath system, Te Whatu Ora – Health New Zealand was established in July 2022 to achieve equity and consistency of healthcare for all New Zealanders.

[6] Te Whatu Ora was responsible for improving services and outcomes across the health system in partnership Te Aka Whai Ora-Māori health authority to improve services and achieve equitable outcomes for Māori (Te Whatu Ora, 2023). The Ministry of Health focus is, therefore, on policy, strategy, and regualtion of health within Aotearoa.

2021). Te Tiriti forms the basis of these health reforms, to guarantee partnership between Māori and the Crown, so Māori can self-determine the pathway towards equitable health outcomes for Māori. Yet, at the time of completing the write up of this thesis, due to a change in Government, Te Aka Whai Ora is to be disestablished. Honouring te Tiriti is essential to achieving health equity and, together with these health reforms, has implications for physiotherapy practice. These expectations have now been made more explicit in the physiotherapy standards (Physiotherapy Board of New Zealand, 2022b)

1.2.3 Physiotherapy standards and regulated practice to support health equity

The provision of effective and culturally responsive healthcare for everyone is a legislative requirement of regulated health practitioners, including physiotherapists in Aotearoa (Ministry of Health, 2003b, 2023a). The Physiotherapy Standards document specifies the essential competencies required of registered physiotherapists to provide services that are culturally responsive (Physiotherapy Board of New Zealand, 2022b). Two out of 18 Physiotherapy Standards have a direct relationship with improving the healthcare experience for Māori and health equity. This is evidenced by the focus on relationships with tangata whenua and te Tiriti, and an emphasis on the delivery of culturally responsive care (Physiotherapy Board of New Zealand, 2022b). Firstly, the cultural competence standard released in 2018 specifies that "practitioners need to be considerate of engaging with patients with cultures different to their own and demonstrate cultural competence with their practice" (Physiotherapy Board of New Zealand, 2022b).

> To practise effectively in Aotearoa New Zealand, a physiotherapist needs to understand the relevance and be able to apply the Tiriti o Waitangi/Treaty of Waitangi principles, whilst promoting equitable opportunity for positive health outcomes within the context of Māori health (models), including whānau (family health), tinana (physical health), hinengaro (mental) and wairua (spiritual health). (Physiotherapy Board of New Zealand, 2022b)

Despite these intentions to centre health equity in physiotherapy practice, the above statement infers that te Tiriti and the Treaty are the same. Further, the articles of te Tiriti (for more detail on the articles of Te Tiriti refer to section 3.6.1) should be acknowledged instead of principles (which originated from the Crown) as these are a more accurate measure of te Tiriti based practice (Came et al., 2017; Healy et al., 2012; Waitangi Tribunal, 2019).

He kawa whakaruruhau ā matatau Māori: Māori cultural safety and competency standard, emphasises the requirement for physiotherapists to acknowledge that "Māori are recognised as

tangata whenua, and the relationship with te Tiriti is re-enforced" (Physiotherapy Board of New Zealand, 2022a). Only coming into effect in 2022, this is the first-time the term 'cultural safety' has been adopted within the Standards Framework and recognised as an important component of patient care (for more detail pertaining to the definition of the terms cultural safety, cultural competency, and cultural responsiveness adopted within this thesis refer to section 1.11).

The physiotherapy profession now aligns with other health professional bodies in terms of legislative requirements that acknowledge cultural safety as an integral component of clinical practice (Medical Council of New Zealand, 2019; Nursing Council of New Zealand, 2005; Ramsden, 1993). While promising in terms of guiding culturally safe physiotherapy practice, the measurability of these standards lacks clarity (Heke et al., 2019; Wilson Uluinayau, 2018). No formal means of measuring practitioners' attainment of these standards, as perceived by the consumers of physiotherapy care, raises concerns. Additionally, a recent analysis of regulated health professional cultural competency standards, including physiotherapy, concluded that compliancy with te Tiriti needs improvement (Came & O'Sullivan, 2021; Heke et al., 2019).

For physiotherapists to grow their capacity to address health equity and adapt to the health climate of the future requires practitioners to be more conversant with te Tiriti, and te Tiriti based practice for transformative change of the profession and physiotherapy practice. Physiotherapy practitioners need to reflect on their current practice and embrace a different way of doing things. Considering how their practice aligns with te Tiriti based practice forms a critical part of this. But for the necessary change to have these desired impacts requires well-defined culturally responsive strategies of change. What this looks like and how it can be achieved in physiotherapy practice in Aotearoa is yet to be explored.

1.2.4 Māori health workforce

To address health equity in Aotearoa, one priority of the health system is to develop a health workforce that can provide effective and appropriate healthcare for Māori, whānau, and communities that align with te Tiriti (Curtis et al., 2019; Ministry of Health, 2020a; Te Whatu Ora-Health New Zealand, 2023; Waitangi Tribunal, 2019). Jones et al. (2019), a Māori researcher and health educationalist, suggested that everyone in healthcare has a role in supporting health equity. However, a critical part of an effective health workforce is one that can address the social determinants of health inequities. Colonisation, institutional racism, and privilege are considered fundamental determinants of Indigenous health and need to be eliminated from the health system (Curtis et al., 2019; Jones et al., 2019).

Growing the Māori health workforce so that the entire health workforce reflects the demographics of the population it serves is a significant factor in achieving health equity (Ministry of Health, 2019, 2022, 2023a; Te Whatu Ora-Health New Zealand, 2023). Indigenous health professionals are essential to providing effective and meaningful care because of the contextual understanding they hold as to the needs of Māori communities. When ethnic values, beliefs, and attitudes of healthcare professionals align with patients of similar worldviews, improved health outcomes are more likely (Acosta & Olsen, 2006; Aspden et al., 2017; Bacal et al., 2006; Curtis & Reid, 2013; Ratima et al., 2006; Wikaire & Ratima, 2011).

Currently, Māori are substantially under-represented in health professional roles (Ministry of Health, 2014, 2021, 2023b). Despite the 2018 Census indicating that 16.5% of the population are Māori, only 4.3% of doctors are Māori, 9.4% midwives, 7.4% nurses, and 4.2% of Māori are dentists (Medical Council of New Zealand, 2021; Stats New Zealand, 2018; Te Whatu Ora-Health New Zealand, 2023). In the physiotherapy workforce, Māori physiotherapists are also under-represented with just under 5% of the registered workforce being Māori (Physiotherapy Board of New Zealand, 2023b; Reid & Dixon, 2018). One regional physiotherapy workforce report showed that 2% of Māori physiotherapists were employed within the Auckland District Health Board (DHB) (as it was known prior to the 2022 Health Reform[7]) (Physiotherapy New Zealand, 2017; Reid & Dixon, 2018). Recent data specific to the employment for Māori physiotherapists in other regions were not available at the time of writing this thesis. Māori health professionals, including Māori physiotherapists, are pivotal to addressing health inequities experienced by Māori; hence, the absence of these Māori health workforce data is concerning. Addressing the underrepresentation of Māori health professionals requires the tertiary health education sector to establish pathways for Māori into health careers.

1.3 Māori in tertiary health education

The growth of the Māori health workforce is reliant on increasing the number of Māori enrolments and successful completion of health qualifications. The intention to grow the number of Māori enrolled in tertiary health education is evidenced in a number of health and educational strategies (Auckland University of Technology, 2018; Ministry of Education, 2005, 2020). While there has been evidence of a steady rise in Māori enrolments in tertiary education over the years, Māori enrolled in health education remains low (New Zealand Government, 2023a). The number of Māori enrolments and completions in physiotherapy education between

[7] New health reforms introduced in 2022 resulted in the DHBs being disestablished, followed by the establishment of Te Whatu Ora-Health New Zealand.

2016 and 2020 was reported as 7% (Te Rau Ora and Infometrics, 2022). It is unclear how Māori enrolment figures may have been affected by COVID-19.

1.3.1 Experience of Māori within tertiary education

Multiple factors influence recruitment, retention, and success of Māori in tertiary education. Being socially and culturally connected from the outset of their educational journey has a key bearing on the initial and ongoing experiences for Māori, and academic outcomes (M. Wilson et al., 2011). However, Māori students face many challenges within the tertiary environment. Issues such as privilege, colonialism, discrimination, and racism are also widespread within the tertiary setting and have adverse effects on the participation of Māori (Curtis et al., 2012b; Foxall, 2013; Ratima et al., 2006; Simon, 2006; Whitehead, 1992; Wikaire et al., 2016; D. Wilson et al., 2011).

Health education within Aotearoa is based on westernised philosophies and teaching and learning strategies that do not reflect the cultural worlds of Māori (Bleakley et al., 2008; Francis-Cracknell et al., 2019; Graham & Masters-Awatere, 2020; Jones et al., 2019; McAllister et al., 2022; Wilson, 2021; M. Wilson et al., 2011; Zambas et al., 2020). Within these westernised-based tertiary institutions, Māori are thereby disadvantaged (Airini et al., 2010; Hoskins & Jones, 2022; McAllister et al., 2019). Due to limited access to appropriate cultural, academic, and pastoral support, sense of belonging is impacted and the ability of Māori to be successful is impeded (Asmar et al., 2011; Waiari et al., 2021).

These issues experienced by Māori are exacerbated by low numbers of Māori educators employed in tertiary institutions (McAllister et al., 2022). Not well supported within these environments, Māori students experience difficulties navigating the interface between te ao Māori and the western world, and do not always see their place as Māori within the health workforce (Curtis et al., 2015b; Sciascia, 2017; Wikaire & Ratima, 2011). These factors impede the academic performance of Māori and their ability to thrive (Berryman & Eley, 2019; Hoskins & Jones, 2022; Macfarlane et al., 2018), and can result in poor retention and course completion rates for Māori which has ramifications for the growth of the Māori health workforce.

1.4 The AUT physiotherapy programme

The AUT physiotherapy programme is one of four programmes offered in Aotearoa and takes 4 years to complete. Currently only one physiotherapy educator (out of approximately 30 educators) identifies as Māori. It was not until 2019 that a Māori physiotherapy educator was employed within the department to provide an Indigenous perspective to physiotherapy

practice. The number of Māori students currently undertaking studies in physiotherapy education at AUT is 12%, and the completion rate is approximately 75% of these students (Auckland University of Technology, 2023). The enrolment data for Māori have been relatively consistent over the last few years.

The Physiotherapy Board[8] undertakes an accreditation review process of physiotherapy programmes every 5 years. In the most recent review of the AUT programme conducted in 2018 (at the time of writing this thesis), two areas of concern were highlighted in relation to 'the integration of cultural competence throughout the curriculum' and 'specific support for Māori students'. While these concerns were noted by the Board, the programme still 'met' the accreditation criteria (Physiotherapy Board of New Zealand, 2023a). This brings into question the appropriateness of the indicators used to assess physiotherapy programmes and how these criteria are met.

The current AUT physiotherapy programme provides a westernised approach to physiotherapy education as supported by findings from a recent review of the programme led by a Māori physiotherapy student. The review explored the cultural responsiveness of the AUT programme by conducting a mapping exercise where key search terms relating to cultural responsiveness were explored in each course prescriptor, learning outcomes, content, and marking criteria taught in the programme. The findings were such that the programme was not culturally responsive and did not do justice to health equity (Wilson, 2021). Both the findings of the accreditation review and Wilson's (2021) study demonstrate that the physiotherapy programme requires significant improvements in the areas of supporting Māori student experiences and in the development of a curriculum that is more responsive to health equity. Continuing to explore the experiences of Māori in physiotherapy education will provide further understanding of how to support Māori recruitment, retention, and successful completion of the AUT undergraduate physiotherapy qualification.

1.5 Developing physiotherapy education in Aotearoa

There are multiple factors that influence physiotherapy education. As already alluded to, health professional legislative requirements, practice standards[9], and governmental strategic health priorities impact curriculum development. All physiotherapy programmes must also meet

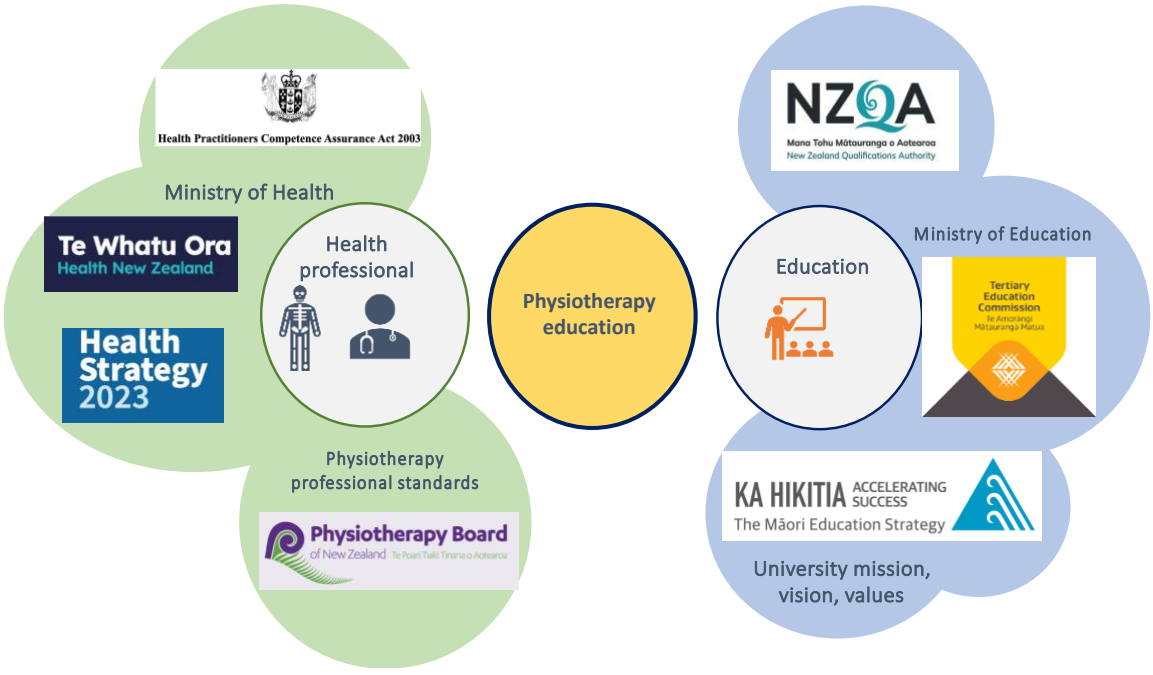
[8] The Physiotherapy Board accredits educational institutions that issue qualifications for entry to practice physiotherapy as prescribed by the Board.

[9] The Physiotherapy Board operates under the HPCA Act 2003 whose principle purpose is to protect the health and safety of the public.

educational requirements specified by the Tertiary Education Commission (TEC)[10] and Ka Hikitia[11] (Ministry of Education, 2013; New Zealand Government, 2023b). The health professional and educational factors that, together, influence physiotherapy education at AUT are illustrated in Figure 2. The educational elements include: the tertiary education strategy (TES); the university qualification authority (NZQA) (this monitors the academic requirements of tertiary organisations); Physiotherapy Board programme accreditation criteria; as well as the university strategic priorities, and overarching mission, vision, and values of the university (Auckland University of Technology, 2018; Ministry of Education, 2013; New Zealand Qualifications Authority, 2023; Physiotherapy Board of New Zealand, 2023a). For physiotherapy education to support health equity and success of all students requires the amalgamation and engagement with all these professional and educational legislative and accreditation requirements that are overarched by te Tiriti.

Figure 2

Health Professional and Education Factors That Influence Physiotherapy Education



Note. The two main drivers of physiotherapy education are health professional (left) and educational factors (right). These intersect and inform the overall programme, including the development and delivery of the physiotherapy curriculum.

[10] The Tertiary Education Commission (TEC) is a crown agent within Aotearoa established under section 159C of the Education Act 1989 and section 401 of the Education and Training Act 2020. The function of the TEC is to fund and monitor the performance of the tertiary education sector.

[11] The priorities stipulated in Ka Hikitia enforce the importance of Māori thriving within all levels of the educational environment.

The TEC's TES sets out the government's vision and priorities for education. Key priorities stipulated within the strategy reflect the importance of honouring te Tiriti o Waitangi within the tertiary setting and prioritising Māori student success (Ministry of Education, 2020). This includes the provision of learning places that are safe for Māori learners; free of racism; and enable Māori to sustain their identity, language, and culture (Ministry of Education, 2013, 2020). As physiotherapy educators, we have a professional duty of care to ensure that all students thrive. Even more so, we have a responsibility to engage with Māori to create opportunities and possibilities for Māori students achieve their aspirations within relevant and culturally responsive learning environments. Currently, it is unclear whether the AUT physiotherapy programme creates an educational environment that meets the needs of Māori students.

1.6 The motivation to undertake this research

The key reason for embarking on this research was originally in response to the impassioned stories shared to me by Māori physiotherapy students, whom I was teaching, about their experiences of physiotherapy education. Through relationships developed outside of class time I learnt about their realities of being a Māori physiotherapy student and the challenges they experienced during their journey through physiotherapy education. The westernised approach to physiotherapy education within academic and clinical settings was a key factor contributing to these challenges. The environment did not feel inclusive to them and, as such, many of the students had stories about not fitting in and described feeling disconnected with their culture (P. Clair, personal communication, August 18, 2019). Many of the Māori students I spoke with did not 'see themselves' within the physiotherapy environment (D. Wilson, personal communication, November 17, 2020). They also shared that while their holistic well-being was important to them, it was rarely supported. What I took from these conversations was that Māori students were not thriving during the process of becoming a physiotherapist.

When I initially heard these stories, I felt quite confronted. While aware of concepts such as implicit or unconscious-biases, privilege, and racism, I had not fully appreciated the impact for Māori physiotherapy students. I was part of this environment that negatively impacted the experiences of Māori, and accepting my role in this space was challenging. I sat with these feelings and as I underwent a process of conscientisation I started to look at the programme from a different perspective. The stories shared with me provided a small window into their world; the seed had been planted that change was needed. Feeling a level of responsibility, I began to consider what contribution I could make within physiotherapy education that would make a difference to the experiences of Māori. These stories and the people behind them are

the impetus to begin this research journey and work alongside Māori to gain new knowledge and understanding to create an educational environment where everyone can thrive.

1.7 Positionality and reflexivity

The broad aim of this research was to privilege the voices of Māori to explore how to transform physiotherapy education into a space of thriving. Bukamal (2022) writes that while researchers are on a journey of discovery, their backgrounds, beliefs, and attitudes, formed by their own personal and professional histories, will influence the acquisition of knowledge. To meet the research aims, I first needed to consider my own positioning and worldview or assumptions I would bring to the research space and the potential impact of these (Berger, 2015; Nayar & Stanley, 2015). I was also aware of the criticism expressed by Māori academics and researchers when Pākehā researchers got involved in 'Māori matters' and failed to consider the needs and aspirations of Māori. Thus, being clear on my own positioning was important so that change would benefit Māori (Mikahere-Hall, 2017; Smith, 1999). To follow, I describe who I am to shed light on the views I hold and how I found my place in this research space.

1.7.1 Physiotherapy educator

I am a Pākehā health professional and physiotherapy educator employed within the AUT physiotherapy programme where I teach musculoskeletal physiotherapy practice. I trained as a physiotherapist in Aotearoa over 30 years ago and, during this time, have been employed in the public and private health sectors. I qualified as a physiotherapist in the same programme I now teach on. Since graduating, I have completed postgraduate studies in manipulative physiotherapy and a master's degree (quantitative research) where I investigated the impacts of rowing and on lumbar posture and back muscle activity (Caldwell et al., 2003). I have been involved in physiotherapy education for over 20 years.

Besides teaching and researching at AUT, I am a member of the physiotherapy cultural team whose role is to support the advancement of Māori students within the physiotherapy programme. This is a small group consisting of Māori physiotherapy educators, and a Kaiarataki Māori academic (Māori equity staff member) positioned in the University faculty in which physiotherapy resides. My inclusion in this group is due to the affinity I have for supporting Māori students. I am also a core member of the 'Faculty Tauiwi Resource Group' tasked with supporting Tauiwi (non-Māori) staff to understand their role within a te Tiriti partnership. I was invited to join this group because of my interest in te Tiriti-based practices that intersect between health and education.

I acknowledge that most aspects of my professional and education career are well-established in westernised paradigms, and I am very much engrained in the same westernised world that many Māori students find challenging. However, despite my background, I have an invested interest in understanding how to transform physiotherapy education so that the educational environment is not only culturally responsive but supports all new graduates to make a positive difference to health equity. To facilitate a cultural change within physiotherapy education will first require understanding the experiences of Māori through creating a research environment that supports and privileges Māori ways of knowing. An essential part will be acknowledging my role and positioning as Pākehā, the dominant culture, within this research partnership and seeking support from Māori throughout the research process (Cram, 2019; Curtis, 2016; Martel et al., 2022).

1.7.2 Being Pākehā

The term Pākehā has been adopted to describe non-Māori settlers and their descendants; however, its use or meaning is widely contested (Margaret, 2010; McAllister et al., 2022). I am of European descent and consider myself as Pākehā. Throughout this research I position myself as such, as it provides some further context for undertaking the research, and the decisions made relating to my approach.

Māori are tangata whenua (Moewaka Barnes & McCreanor, 2019; Mutu, 2019; Smith, 1999). Te Tiriti o Waitangi, was negotiated between hāpu and the Crown to legitimise the presence of settlers in Aotearoa and affirm Māori sovereignty (Berghan et al., 2017; Healy et al., 2012). The promises outlined in te Tiriti have not been upheld by the Crown resulting in British colonisation of Aotearoa (Huygens, 2011; Waitangi Tribunal, 2014).Through dominant Pākehā culture, power, and privilege, Māori have not been protected (Huygens, 2011; Moewaka Barnes & McCreanor, 2019; Mutu, 2019). The negative impacts of our colonial history for Māori has been documented extensively within in the literature (Moewaka Barnes & McCreanor, 2019; Ramsden, 1993) and Waitangi Tribunal reports (Ministry of Justice, 2024).

Described as a 'lived experience for Māori' the impacts of colonisation are ongoing for Māori (Jackson, 2011). This manifests as experiencing high degrees of prejudice, exclusion, and discrimination within spaces Māori live and work (Cormack et al., 2018; Moewaka Barnes & McCreanor, 2019). Colonisation continues to bestow poorer outcomes for Māori compared to all settlers in Aotearoa (Cormack et al., 2018; Moewaka Barnes & McCreanor, 2019). Factors including cultural marginalisation and diminished rights have impacted many areas including Māori health and education (Cormack et al., 2018; Health Quality & Safety Commission New Zealand, 2019; Jackson, 2020; Moewaka Barnes & McCreanor, 2019; Robson & Harris, 2007).

While Māori have suffered, Pākehā and Tauiwi (non-Māori) continue to thrive (Moewaka Barnes & McCreanor, 2019). By stating my identity as Pākehā, I recognise that I have benefited significantly from the privilege of being Pākehā. Within the context of the research, facilitating change within physiotherapy education will occur in partnership with Māori, so Māori can benefit from the potential outcomes of this research. My involvement in this research is shaped by my identity as Pākehā, and my commitments to honour te Tiriti and uphold my responsibilities to tangata whenua. Key to my commitment will be establishing meaningful relationships with Māori guided by the original promises stated in te Tiriti o Waitangi.

1.7.3 My personal perspective

While my professional background influences my worldview, my personal life experiences have done so too. Pinnegar and Daynes (2007) suggested that history provides us with the narratives that express who we are, where we have come from, and where we might be going. In the following I share personal stories that have shaped who I have become. It seems right that I should share something of myself when this research asked others to do the same.

Who am I?

I am a fourth generation Pākehā, and through marriage I have become part of a Māori family. My ancestors arrived in Aotearoa from Scotland and Ireland in the early 1900s. I was born in Kaikōura, a small rugged coastal town in the northeast of the South Island (Te Waipounamu) (Sherrard, 1966) nestled between Kā Tiriti of te Moana (the Southern Alps) and Te moana-nui-a-kiwa (the Pacific Ocean). This beautiful part of Aotearoa strongly resonates with me and I feel at peace when I am there. Despite living in Tāmaki Makaurau (Auckland) for several years, Kaikōura is the place I call 'home'. I acknowledge and respect tangata whenua as I stand on this land as Pākehā and call this my tūrangawaewae (my standing place).

Growing up in Kaikōura, my two older sisters and I enjoyed a very typical and mostly stress-free 'Kiwi'[12] upbringing. Both my parents were educated; my mum gained a university degree and was a high school teacher at the local high school. Dad was the local pharmacist. The early years of my education in the late 1970s and early 1980s was standard for that era. However, we took classes in Māori culture which was considered unique. We learnt te reo Māori (Māori language) and recited our pepeha[13], a customary Māori tradition of introducing oneself to tell people

[12] 'Kiwi' is a common term used to describe people who live in Aotearoa. The word 'kiwi' in te reo is a flightless native bird that is a national symbol of Aotearoa.

[13] Pepeha are typically recited during whakawhanaungatanga (a cultural process of establishing a relationship) and connect Māori through their whakapapa (genealogy) (Moorfield, 2011). My pepeha was presented at the beginning of this thesis.

where you are from and who you are connected to (T. Pryor, personal communication, November 17, 2023). We also performed action dances and sang waiata (songs). These classes were a personal highlight (and I have enjoyed reigniting the embers of this early period of learning for this current research). In my later school years, I went to boarding school. Despite the school having a Māori name, it was in name only. The education was western based with the sole focus on supporting individual success of those already succeeding. I was successful academically and had high ambitions for the future which included becoming a physiotherapist and attending the Olympic games as a sports physiotherapist. Over time I successfully achieved these goals. As I did so, I never encountered any barriers. Society was structured so people like me could succeed.

As I reflect on my childhood, there have been influential experiences in terms of shaping who I am and the values I hold, many of which have impacted my decision to undertake this research. A significant experience was the sudden passing of my mum when I was 10 years old. Experiencing grief and navigating the loss of a parent at a formative time in my personal growth enabled me to build resilience and empathy. Having developed these attributes through challenging times, I feel as though I am able to connect and meaningfully engage with others. So far, this has been advantageous throughout my career in health and education, and I hope will guide me as a qualitative researcher.

Another notable experience was working alongside my dad in the pharmacy as an assistant while studying physiotherapy. Personally, and professionally, dad was an exemplarily role model. He embodied the values of whanaungatanga (relationships, sense of family connection through a shared experience) and manaakitanga (showing respect, generosity, caring for others). He was very focused on supporting the community through relationships nurtured through kindness and care. Dad was also dedicated towards social justice, particularly for Māori. Like a kaitiaki (support person, guardian, carer), he offered pastoral support to Māori families in need. It was through these experiences, alongside dad, that I first recognised the impact of establishing and maintaining relationships with others could have. This understanding has since formed the cornerstone of how I conduct myself both personally and professionally and has set the scene to embark on this research journey to supporting social justice for Māori.

My whānau

My identity is also shaped by my immediate whānau (family). My husband and I have two teenage daughters. Together, my husband and children whakapapa to the iwi of Te Atiawa, a tribe based in Taranaki, a region west of Te Ika-a-Māui, the North Island. My husband is also a physiotherapy educator and researcher; we work together in the same place. In addition to

these roles, he has a very fulfilling role as kaitiaki (support person) for Māori physiotherapy students. At the time of writing, my husband is the chair of the Mātauranga Māori Research Committee within the faculty in which this research is based. The role of the committee is to support researchers undertaking research alongside Māori, so I have been supported well in this new research space.

From a personal perspective, my husband connected to his Māori identity later in life. While he grappled with what his identity meant to him, I also felt some discomfort as I was not sure how to support him or what it would mean for me and our children. I also saw him being thrust into roles within the faculty just because of his identity, and I could see this made him uncomfortable due to the whakamā (embarrassment) of 'not knowing'. Together, we have been growing in this space and discovering what 'being Māori' means to us and our whānau. Over recent years I have seen my husband flourish as he understands more about who he is and how he can more comfortably express this. Over the course of this research, I have also begun to feel more connected to my husband and children's whakapapa (genealogy), as my understanding has deepened regarding my role as Pākehā within this cross-cultural whānau. I have also come to realise that the outcomes of this research will not only influence Māori within the AUT tertiary setting, but our own children and their children growing up as Māori. This research is, therefore, personally motivated.

On reflection, I now recognise that many of my past personal and professional experiences led me to undertaking this research. Having developed an equity focus over the years, and more recently encouraged to critically think about my role as a Pākehā health professional and educator, my interest in this research was ignited. While apprehensive about the shift into an unfamiliar research space, I was confident that the core values I held would help garner the respect and trust of Māori needed to a create a research space amenable to successful research outcomes.

1.7.4 Reflexivity

Being reflexive has and continues to be a critical part of this research journey. Reflecting on my identity has been paramount to carrying out culturally safe research and ensuring the focus of the research remains on the goals of realising Māori aspirations. In support of this, a process of self-appraisal has been undertaken simultaneously during this research by maintaining a reflexive journal. Things that I have reflected on include my assumptions, what I am learning and noticing, and the challenges and successes that have occurred throughout the research process particularly in relation to the cross-cultural nature of the research and what I bring to this space as Pākehā. Within the journal I have identified concerns, which meant I have been

able to address these with either my research supervisors or research whānau (Māori advisory group[14]) where appropriate.

Documenting the research process has also allowed me to capture the story of my own personal development. There are many new learnings, many of which motivational and inspiring. But I have also written about my discomfort when I felt vulnerable. Because of my identity, I felt reservations about my place in this research and questioned my right to hold a space as Pākehā whilst exploring the experiences of Māori. In my reflective journal I wrote the following*:*

> What right do I have, as a white middle class physiotherapy lecturer employed in a colonised university, to ask Māori about what they like about a programme where they are the minority? (August, 2018)

In another journal entry made in the early stages, I came to understand the social world through reflexivity:

> I still feel overwhelmed by the complexity of the task ahead. Although I'm somewhat an expert in physiotherapy, I feel like I am a novice and this makes me feel uncomfortable. This is a whole new language for me… the more I get into this the more I realise that I have contributed to an environment that hasn't been good for Māori and I feel heavy in my heart … but I need to take up this challenge because I have a responsibility to them. (April, 2019)

Indigenous rights activist Tina Ngata (2020) stated that it is not the place of Pākehā to find ways for Māori to succeed, which added to my concerns. Ngata (2016) also stated that for research to impact Māori positively, it will only transpire by standing alongside Māori and creating opportunities for Māori to self-determine the research process and outcomes for themselves. These words strongly resonated with me and helped me to see there was a way for me as Pākehā to add value to this research. This research is not about changing Māori. It is about changing physiotherapy education, and the value I could bring to Pākehā and Tauiwi in terms of their physiotherapy educational practice. Further, as I am part of the large number of Pākehā or Tauiwi educators employed within the university, I have access to spaces that Māori are not typically part of. I intend to take advantage of this and amplify Māori voices in these spaces. Lastly, due to existing relationships I have with Māori within this educational and research space, I know that I have the support of Māori, and that they are willing to join with me as we embark together on a process of transformative change.

[14] For further detail on the roles of the research whānau refer to Chapter 4, methods section 4.3.2.

1.8 Purpose of the research: Aims and objectives

The main aim of this research was to work towards identifying innovative culturally responsive strategies of transformative change within physiotherapy education at AUT through exploring the research question:

How can the AUT physiotherapy programme improve to enhance Māori experiences of physiotherapy education?

To address the question, the first objective was to create a space alongside Māori physiotherapy graduates to explore and understand more about their experiences of physiotherapy education, with a particular focus on what supported them to thrive. This was followed by devising a strategy in collaboration with Māori for how physiotherapy education could be more inclusive of Māori and facilitate a process for cultural change.

To achieve these objectives would require centring the research on Māori worldviews and beliefs. A Māori-centred research framework founded on te Tiriti o Waitangi and Te Ara Tika (ethical guidelines for Māori research ethics) (Hudson et al., 2010) needed to be developed, so that the rights and interests of Māori involved in the research were protected. To my knowledge, adopting a culturally adapted approach to facilitate the transformative potential of culturally inclusive and responsive physiotherapy education in Aotearoa has not yet been undertaken.

1.9 Significance of the research

This research is unique. It is the first of its kind to explore and understand factors that enhance the experience of Māori who have undergone physiotherapy education using a Māori-centred approach to research. Embracing the experiences of Māori through a culturally adapted approach to an appreciative inquiry will help shape the future of physiotherapy education where Māori are supported to achieve their aspirations and thrive. As a result, the programme will be able to grow and potentially prosper as a culturally responsive programme where everybody will thrive. The main outcomes of this research are to:

- Influence future strategic development of the AUT undergraduate physiotherapy education.
- Strengthen relationships between Māori and non-Māori working within the AUT physiotherapy programme and wider university by creating a culturally safe space to build and share knowledge.

- Demonstrate how to conduct ethically and culturally appropriate research involving Māori, where respect and commitment is shown towards te Tiriti o Waitangi and the rights and interests of Māori are protected.

In the long term, this research will potentially impact health equity by contributing to the development of the Māori health workforce. Taking the opportunity to understand the experiences of Māori with the view to transform physiotherapy education will enable Māori students to be supported more appropriately in the future to achieve their aspirations and transition successfully into the health workforce. In conjunction, developing an innovative culturally responsive physiotherapy programme will equip the next generation of physiotherapists to develop as culturally safe practitioners who can meet the needs of the communities they serve. Lastly, the insights and new knowledges generated from Māori through this research will be relevant to other tertiary health organisations seeking to become a te Tiriti honouring environment that is accepting of everyone and their knowledges, and producing graduates who are better prepared in the provision of effective and equitable healthcare services.

1.10 Chapter organisation

This thesis began with a preamble which introduced te Tiriti as the framework that has guided the relationship between Māori and Pākehā and Tauiwi throughout the research journey. By foregrounding te Tiriti in this research, I acknowledge my responsibility to engage with and honour te Tiriti as a respectful partner.

Chapter 1 provided the rationale for conducting this research, the relevant background, and context for embarking on a process of facilitating transformative change within physiotherapy education at AUT. My positioning as Pākehā physiotherapist, educator, and researcher was described as this is an integral part of setting the scene for this research and provides context to the framing of this thesis and how this thesis is viewed. Lastly, the aims and objectives of this research have been stated.

Chapter 2 provides an overview of the literature relevant to the experiences of Māori within the tertiary environment, and identifies factors that sustain and support Māori student success within tertiary education.

Chapter 3 introduces the research methodology and considers the ontological, epistemological, and axiological perspectives that form the interwoven Māori-centred framework congruent with the research aims. Based on te whāriki (woven mat), the methodological framework

consisting of theories of a kaupapa Māori research, te Tiriti, Te Ara Tika ethical guidelines, and principles of appreciative inquiry are introduced to describe how the research process was guided ethically and culturally appropriate, so Māori are protected and cared for. Māori voice was critical to guiding the process of this research and this is demonstrated by the adoption of an additional phase to the traditional model of appreciative inquiry. Consistent with the overarching philosophy of this research, this cultural adaptation demarks a unique approach to the inquiry.

Chapter 4 presents the methods and describes how a culturally adapted approach to appreciative inquiry was conducted alongside Māori physiotherapy graduates and both Pākehā and Tauiwi physiotherapy educators. A description of the methods employed to analyse the data is provided. Adaptations made due to extenuating circumstances that impacted the process of the research, including COVID-19, are also addressed.

Chapters 5, 6, 7, 8, and 9 present the results of the appreciative inquiry that stem from the collaboration with two groups of co-inquirers: Māori physiotherapy graduates, and Pākehā and Tauiwi physiotherapy educators, during different research stages. These results chapters form the basis for effective and sustained transformative change within physiotherapy education at AUT.

Chapter 10 discusses the main outcomes from this research. What and where change is needed for physiotherapy education to be able to move forward and become a place of thriving is highlighted.

The final 11th chapter concludes the thesis. Key recommendations and suggestions of ways to facilitate culturally based transformative change within the AUT physiotherapy programme; physiotherapy education in general; and other tertiary health organisations, nationally and internationally, are provided; along with insights for research in the future.

1.11 Terminology explained

There are several terms or concepts referred to regularly throughout this thesis. These are defined here for clarity.

Māori, Pākehā, and Tauiwi identity

Māori are identified as tangata whenua, Indigenous peoples of Aotearoa. Tangata whenua are Māori born of the whenua (land) where their ancestors have lived. In using the term 'Māori', it is recognised that iwi (tribe) and hapū (subtribe) are distinct and diverse authorities. The views of Māori are not homogeneous (Hudson, 2004).

The term Pākehā that has been adopted to represent European settlers and their descendants. The term Tauiwi describes all New Zealanders who are not of Māori descent. Tangata Tiriti is a collective term that includes Tauiwi and Pākehā who support te Tiriti as the founding document of our colonial state.

Indigenous Peoples

The term Indigenous peoples, is widely used in the current literature to respectfully describe people who descend from "populations who inhabited the country or geographical region at the time of conquest, colonization, or establishment of present state boundaries" (Chouinard & Cram, 2020). Māori are Indigenous peoples of Aotearoa.

Cultural safety, cultural competency, and cultural responsiveness

The terminology of cultural safety, cultural competency, and cultural responsiveness has been referred to throughout this thesis. Cultural safety, a term first proposed by Dr. Irihapeti Ramsden (1993) and Māori nurses in the 1990s, considers the power dynamics between the patient and the health provider. Cultural safety encompasses critical consciousness that requires self-examination and acknowledging the potential impact of one's own culture on interactions with Māori (Curtis et al., 2019). While cultural competence acknowledges specific skills and knowledge of an individual, cultural safety is about system and organisation processes and consideration of power, privilege, and biases (Curtis et al., 2019)

The term culturally responsive means to draw from Māori cultural aspirations and ways of knowing. Fundamental to being culturally responsive is being culturally competent; that is, demonstrating culturally appropriate and acceptable practice that those on the receiving end of the interaction deem to be culturally safe (Curtis et al., 2019; Wilson, 2020; Wilson Uluinayau, 2018). In the teaching arena, culturally responsive teaching recognises and values the richness of the cultural knowledge and skills that students bring to the classroom as a resource for developing multiple perspectives and ways of knowing (Bishop & Berryman, 2010). Cultural safety in education is about working with Māori and sharing power with Māori to achieve successful outcomes (Bishop, 2003).

Inclusion of te reo Māori

Te reo Māori is one of two official languages of Aotearoa, with English spoken most widely. As this research is informed by a kaupapa Māori approach which centres te ao Māori, a range of te reo Māori in the form of kupu (Māori words) or whakataukī (proverbs) are used deliberately in this thesis. The meanings of te reo Māori are explained either within the associated text or in footnotes on the first occasion only. A glossary is also provided. Māori concepts referred to by

Māori co-inquirers, who are integral to this research, have also been included as a sign of respect of the taonga (or gift) of te reo offered. Privileging te reo Māori has provided an avenue to express what is important to Māori. The purposeful inclusion of te reo Māori has also been to legitimise te reo Māori and cement the idea that te reo is normal. To strengthen this notion, the decision to place te reo first followed by an English definition has been intentional.

The inclusion of te reo Māori and/or Māori concepts in this thesis also reflects my personal growth. I recognise that my knowledge is still limited, but developing an understanding of te ao Māori has given me the confidence to thread these ideas throughout this thesis. Through the incorporation of te reo Māori, this gives Māori a stronger voice. The inclusion of te reo Māori may also support Pākehā or Tauiwi new to this cultural space in their understanding of some basic yet meaningful concepts. To safeguard what has been presented, results chapters were reviewed by Māori co-inquirers.

Whakataukī[15] are threaded throughout this thesis to prioritise Māori knowledges and highlight or represent important ideas, wisdom, and concepts that align closely with the research. Whakataukī are often used to unite people with a common purpose and express key ideas (Bishop, 2005; Dell et al., 2021; Elder, 2020). Each of the whakataukī included in this thesis strongly resonated with me. Many of the whakataukī adopted in this thesis have been offered by Māori involved in this research, further validating their inclusion. English proverbs are also referenced to and this acknowledges my own heritage. The following whakataukī led this first chapter:

> 'Poipoia te kakano kia puawai'
> Nurture the seed and it will blossom. (author unknown)

This whakataukī firstly encapsulates the main aim of this research, which is to create a space that privileges the voices of Māori. This research is designed for Māori physiotherapy graduates to share their experiences and self-determine a pathway for Māori undertaking physiotherapy education in the future. This whakataukī also represents my personal journey, and growth within this cultural research space.

[15] The creation, origin, and use of Māori proverbs or metaphors known as whakataukī is a form of Māori pedagogy and can hold different meanings to different people (Elder, 2020).

Glossary

A glossary has been developed over the course of this research journey through learnings gathered from Māori friends, colleagues, research whānau and Māori co-inquirers, and relevant texts and literature. This can be located following the reference list. I acknowledge that explanations of kupu in English that have been provided in the glossary may not necessarily fully encapsulate the true essence of their meaning in te ao Māori.

1.12 Navigating a new research space

New to navigating this cross-cultural space, it is with humility that I ask for kindness to be extended if there are areas where I have failed to explain Māori perspectives and concepts appropriately or to the depth that they deserve.

Chapter 2 Literature review

Hoki whakamuri, kia anga whakamua

Look to the past, in order to forge the future. (author unknown)

2.1 Introduction

The first step to achieving the aim of facilitating culturally responsive transformative change within physiotherapy education required conducting a review of the current literature. Undertaking this process provided an opportunity to explore and reflect on what is known regarding the lived experiences of Māori within tertiary health education and identify factors that sustain and support Māori success as they journey through the tertiary education system. Acquiring this understanding was also beneficial in terms of guiding the current research process and instigating change likely to be effective and meaningful within the AUT physiotherapy programme that fostered thriving.

This chapter describes some background relating to Māori student experiences in tertiary education. This is followed by an introduction to the literature review process. To be consistent with a Māori-centred approach adopted throughout this research, a decolonising strategy was undertaken for the review of literature. This strategy is explained before presenting the key findings. An iterative process was adopted to synthesise the literature which resulted in four themes. Each theme is presented and outlines the barriers and enablers that relate to Māori student experiences enrolled in tertiary health education at different stages of their journey.

2.1.1 Background to literature review

Tertiary health education and health equity

Health disparities between Indigenous and non-Indigenous people worldwide are well documented (Australian Government, 2021; British Colombia Government, 2017; Ministry of Health, 2019). Health inequity is an issue that has plagued the health system of Aotearoa over many years. The Waitangi Tribunal (2019) inquiry into the primary healthcare system of Aotearoa found that the colonial structures of the healthcare services were detrimental to health outcomes for Māori (Waitangi Tribunal, 2019). These differences in the quality of healthcare provided to Māori by non-Māori healthcare workers has significantly negatively impacted Māori (Pitama et al., 2014; Ramsden, 2002; Waitangi Tribunal, 2019; Wilson, 2008; Wilson et al., 2018). While numerous reports highlight a health equity problem, the acknowledgment of the essential role of Indigenous health workers in the provision of care to

achieve equity is recognised (Graham & Masters-Awatere, 2020; D. Wilson et al., 2021). A Māori health workforce creates a health system that guarantees options for Māori and their whānau to access and receive care in ways valued by them (Reid, 2021; B. J. Wilson et al., 2021). Thus, developing the Māori health workforce is vital to achieving health equity for Māori (Espiner et al., 2021; Health Quality & Safety Commission New Zealand, 2019; Ministry of Health, 2020b; Reid, 2021; D. Wilson et al., 2021).

Despite the myriad of recommendations made by government and health policy makers to develop the Māori health workforce, the proportion of Māori practitioners remains low across the spectrum of healthcare providers in Aotearoa (Medical Council of New Zealand, 2019; Ministry of Health, 2014, 2022; Reid et al., 2019). The rights of Māori to equitable access to good health is expressed within te Tiriti; however, it cannot be easily realised if the Māori health workforce does not increase (Waitangi Tribunal, 2019). Health education is integral to the development of the Māori health workforce and improving health outcomes for Māori and their whānau.

Māori attending tertiary education

The recruitment, retention, and success of Māori students within tertiary education presents a significant issue for tertiary institutes (Mayeda et al., 2014; McAllister et al., 2019; Tertiary Education Commission, 2012). The number of Māori enrolled in degree level qualifications is currently 13%[16] (New Zealand Government, 2023a). Recent reports show that both retention and course completion rates for Māori are on the decline (New Zealand Government, 2023a). The completion rates for Māori enrolled in higher degree programmes were reported at 52% in 2022 compared to Pākehā and Tauiwi (non-Māori) students at 66%. The number of Māori students completing qualifications has decreased by 14% from 2021 to 2022, compared to Pākehā and Tauiwi students which is at 7.8 % (New Zealand Government, 2023a). These findings show that when compared with Pākehā and Tauiwi, larger numbers of Māori students do not complete their studies (Bristowe et al., 2016; McAllister et al., 2019; Waiari et al., 2021; Wikaire et al., 2017; Zambas et al., 2020). Lower Māori completion rates may be attributed to COVID-19. Impacts on all students' mental health, and cumulative effects of disrupted study and the interrupted university experience have been reported (Cameron et al., 2022; Ministry of Education, 2021; Te Pūtea Whakatupu Trust, 2020). Irrespective of these challenges, with refreshed government education and health strategies in recent years aimed at supporting the Māori health workforce and raising the number of Māori enrolled in health education, these

[16] Whilst data is presented here, McAllister et al.(2019) reports that universities within Aotearoa do not have transparent reporting systems, hence for several years data pertaining to Māori recruitment and retainment has been inaccurate.

data indicates that the strategies employed to support Māori students within the tertiary setting are not yet making an impact.

Lower levels of academic achievement of Māori are evident at all levels of education, and has been attributed to the socio-political and historical context of Aotearoa relating to colonisation (Berryman & Eley, 2019; Macfarlane et al., 2007; Milne & Milne-Ihimaera, 2022). Compared with other Organization for Economic Cooperation and Development countries (OECD), Aotearoa has the most disparate educational outcomes between ethnicities (Waiari et al., 2021). Consequently, raising Māori educational achievement has been an area of interest of the New Zealand Government for several years (Ministry of Education, 2013). However, despite strategies aimed at improving academic outcomes for Māori, stark differences in academic outcomes for Māori compared to non-Māori remain, including in the tertiary environment (Ministry of Education, 2022; New Zealand Government, 2023a). Internationally, similar findings are reported in terms of Indigenous student retention, and completion rates at tertiary level (Asmar et al., 2011; Lydster & Murray, 2019; Taylor et al., 2019; Wilks & Wilson, 2015).

Māori in tertiary health education

An analysis of Māori participation rates in health degree level programmes shows that Māori are under-represented compared to the population parity rate of Māori, which are estimated to be 17%, in Aotearoa (Curtis et al., 2012b; McAllister et al., 2019; Milne et al., 2016; Stats New Zealand, 2018). A study by Wikaire et al. (2017) investigated the number of Māori enrolled in a first-year foundation programme and found that only 150 out of 2,686 (5.6%) students identified as Māori. Other studies exploring Māori undertaking studies in health education also report poorer retention rates and higher failure to complete rates for Māori (Curtis et al., 2015a; Curtis et al., 2012c; Wikaire et al., 2017). These figures do not bode well for strengthening Māori representation in the health workforce.

The number of Māori enrolled in the two largest and longest standing physiotherapy programmes in Aotearoa (pre-COVID) has consistently been between 8 and 12% (Auckland University of Technology, 2020; University of Otago, 2020). In comparison with the Māori population figures, Māori enrolment in physiotherapy is low (Stats New Zealand, 2022). At AUT, the number of Māori enrolled across the 4-year programme is 12% (Auckland University of Technology, 2023). With only 5% of Māori in the current physiotherapy workforce, this points to an irregularity between the number of Māori who successfully complete their physiotherapy degree and enter the workforce (Physiotherapy Board of New Zealand, 2023b; Reid, 2019).

Presently there are not enough Māori physiotherapists[17] to meet the health demands of Māori communities.

Enhancing the success of Māori in tertiary education

Promoting Māori educational success within the tertiary environment is important. Tertiary institutions are duty bound by the TEC to ensure Māori experience significant educational success as Māori (Hoskins & Jones, 2022; Ministry of Education, 2020; Royal, 2022). While primary and secondary school environments have shown significant improvements in their support of Māori; low retention, completion, and academic outcomes reported for Māori within the tertiary sector suggests that these institutions need to improve (Airini et al., 2010; Curtis et al., 2015b; Education Review Office, 2016; Hoskins & Jones, 2022; Mayeda et al., 2014; Sciascia, 2017; Wikaire & Ratima, 2011).

Renown Māori health and education advocate Sir Mason Durie described three shaping visions for Māori educational advancement which include: to live as Māori; to actively participate as citizens of the world; and to enjoy a high standard of living and good health (Durie, 2005b). For Māori, educational success is more than the attainment of academic achievement—it is an experience that enables Māori to be inspired, empowered, and thrive as they achieve their aspirations (Airini et al., 2010; Macfarlane et al., 2018). Creating an environment that supports Māori students' overall well-being is critical to enhancing Māori student success, and educators have a responsibility to support this goal.

2.1.2 Experience of Māori in tertiary education

A tertiary environment that offers an intricate blend of cultural, academic, and pastoral support can enhance Māori advancement (Airini et al., 2010; Airini et al., 2011; Mayeda et al., 2014; Paterson et al., 2008; Royal, 2022; Sciascia, 2017; Tertiary Education Commission, 2012; Theodore et al., 2016; Waiari et al., 2021). Conversely, negative experiences during time of study can be detrimental to well-being. Many factors impede the success of Māori students within the tertiary environment, and include barriers relating to transitioning from secondary school into the tertiary environment, and lack of academic preparedness for tertiary study (Airini et al., 2010; McAllister et al., 2019; McKinley & Madjar, 2014). Other factors that impact Māori success are the western-based educational experience, a lack of social networks, and minimal access to Māori role models (Mayeda et al., 2014; Tertiary Education Commission, 2012; Waiari et al., 2021). Contending with discrimination and racism also forms a significant

[17] With the recent addition of two new physiotherapy education programmes in the Waikato and Auckland regions, the potential to increase the number of Māori enrolled in physiotherapy education is enhanced.

part of Māori student experience of the tertiary journey (Mayeda et al., 2014; McAllister et al., 2022; Pasene, 2018).

Physiotherapy educators have a significant role in preparing the next generation of physiotherapists to meet regulatory requirements and contribute effectively to health equity. Providing an educational experience that enhances the success of Māori is an important aspect of physiotherapy education[18]. Physiotherapy educators who develop a deeper understanding of factors that support Māori to thrive and realise their aspirations of becoming a health professional is likely to positively impact recruitment, retention, and success of Māori. Furthermore, enhancing the transition of Māori into the health workforce will have broader impacts on the development of the Māori physiotherapy workforce. Promoting Māori success is multi-factorial. Understanding the facilitators and barriers that influence Māori success within the educational environment is integral to enhancing the educational experience for Māori within the tertiary setting (Bennett, 2003; Royal, 2022; Sciascia, 2017; Tertiary Education Commission, 2012; Waiari et al., 2021).

2.2 The literature review process

A narrative literature review was framed within the context of Aotearoa to explore the experiences of Māori undergraduate students enrolled in tertiary health education[19], and specifically the experiences of Māori within physiotherapy education. Three different stages of Māori students' experiences have been explored: transition into the tertiary setting, first year foundation (or bridging) programmes, and enrolment in health degree programmes. Although the focus of this review is to highlight the fundamental elements central to an environment that is responsive, enabling, and relevant to Māori students, barriers to Māori achieving success within the tertiary environment have not been ignored.

Decolonising literature review

The philosophical approaches that inform the Māori centred methodological framework of this research (appreciative inquiry and theories of kaupapa Māori based research) also influence the literature search process and analysis (refer to Chapter 3, methodology section for further detail). As a result, an intentional citation practice was engaged with during the search process to ensure Indigenous ways of knowing, being, and doing were privileged (Tynan & Bishop,

[18] Physiotherapy education sits under the governance of the Crown; hence, physiotherapy educators need to be held accountable for the success of Māori within the tertiary setting as stipulated by the TEC (New Zealand Government, 2023b).

[19] Registered health professional education training programmes are available at university or polytechnic programmes across Aotearoa.

2023). This attempt to identify research in a purposeful way was to ensure that Māori voices continue to be 'listened to and heard', so what is important to Māori can be understood. It also emphasises my intention to conduct research 'with' rather than 'on' Māori (Smith, 1999). This aim was achieved by identifying research where possible that was either published by Māori researchers and/or reported qualitative research findings based on the actual experiences of Māori students. However, research conducted by Māori and non-Māori researchers in partnership was also sought. Research articles or relevant material passed on from Māori co-inquirers involved in the research were also included in the review process to honour their input and the kaupapa Māori approach. These strategies adopted for the literature search are consistent with decolonising methodologies described by Smith (1999) and strengthen the pathway with which to honour te Tiriti.

The final aim of the search strategy was to locate articles that focused on generating solutions and aspirations from within Māori realities. Undertaking a strength-based approach to the review process is congruent with the lens of kaupapa Māori research theories and appreciative inquiry. Capturing literature that profiled the strengths and aspirations of Māori within these tertiary environments was, therefore, a key objective of the search process. Additionally, as this current research was focused on the notion of transformation for the positive development of Māori, literature were also sought that resulted in transformative change within educational spaces that positively impacted Māori.

The philosophy of appreciative inquiry influenced how literature was identified and interpreted. While there is a propensity to seek out the positive with an appreciative inquiry lens, being open to the negative forms an important part of the inquiry. Negative factors (known as 'the shadows' in the world of appreciative inquiry) are considered just as influential as positive factors in terms of promoting the generative potential[20] of appreciative inquiry (Bushe, 2007); hence, negative factors or barriers were not ignored during the review.

Conducting the review based on theories of kaupapa Māori and appreciative inquiry strengthened the focus of searching for articles that identified enablers, facilitators, and opportunities that influenced Māori positively during their experience in tertiary organisations. However, to enhance academic rigour, key findings that emerged from the literature were discussed with Māori who were either part of the research whānau or roopu rangahau. This was to ensure findings I had elucidated from the literature were congruent with the authors'

[20] Generative potential through appreciative inquiry means identifying new ways of change (Bushe, 2007). For more detail refer to methodology, Chapter 3 section 3.8.2.

intentions. Immersing myself within this literature also formed a critical part of widening my own worldview necessary to undertake this research and initiate the thinking that was needed to effectively engage in Māori-centred research, bringing to life the process of transformation.

To meet the aims of the literature review, the inclusion and exclusion criteria adopted were carefully refined to ensure the literature selected met these criteria. With the focus of this review to explore the lived experiences of Māori within the tertiary environment, qualitative literature was prioritised as is in accordance with the research aims. However, some literature presenting quantitative data were also included so that the experiences of Māori could be appreciated within different contexts.

Inclusion and exclusion criteria.

Articles were included or excluded for the review based on their title and abstract. Articles included were those published up until November 2021 as this was prior to the data analysis phase of the research. Because this research is specifically aimed at understanding the experiences of Māori, only articles involving Indigenous and/or Māori students studying health-related tertiary programmes in Aotearoa were included in the search. Articles were excluded that did not include a focus on the success or retention of Māori students in tertiary health education programmes in Aotearoa and were not in English.

Literature search strategy

A systematic search process was undertaken in different stages to identify appropriate literature for this review. The process began by exploring peer reviewed articles and grey literature, including postgraduate student theses, reports obtained from: Ministries of Health and Education websites, Physiotherapy Board of New Zealand, and New Zealand University websites, and any other published initiatives that have been developed and implemented within tertiary settings within Aotearoa to improve the experiences of Māori. Next, relevant literature was identified by using the following electronic databases: Web of Science, Scopus, MEDLINE, SPORTDiscus, CINAHL, Google Scholar and the NZ Research organisation (NZresearch.org.nz). An initial search was conducted using the following search terms: ("allied health" OR physio OR "physical therap*" OR physiotherap*) AND (universit* OR colleg* OR graduat* OR undergrad* OR tertiary) AND (Indigenous OR Māori OR Maori) AND ("New Zealand" OR Aotearoa OR NZ) AND (experience* OR view* OR perspective*). A second search was undertaken including the words "success" and "retention".

Initial searches specific to Māori and physiotherapy education produced few results, with only one study yielded (Wikaire & Ratima, 2011). Given this outcome, the research whānau agreed

to widening the search criteria to include other allied[21] health professional training programmes. The initial search was adapted to include programmes similar to physiotherapy and included occupational therapy and midwifery (degree programmes taught within the same faculty as physiotherapy, with students undertaking clinical placements). Despite the inclusion of these additional health professions, the results were still limited; hence, nursing and medical students, in different stages of their tertiary journey, including first year foundation health training programmes, were also included in the search criteria. Broadening the scope of the review to include literature that encompassed a variety of health degree programmes across different stages of the tertiary educational journey, strengthened the opportunity to understand the experiences of Māori and identify factors that contribute to their success within tertiary health education. Lastly, articles were also identified through manual searching of reference lists of articles. Where eligibility was unclear, the article was discussed with the research whānau.

2.3 The review findings

An iterative process was adopted to synthesis the literature and highlight key findings and establish gaps. Specific information pertaining to each of the studies reviewed in depth are summarised in Appendix B. Four central themes emerged from the review that represent an overview of the key factors that impacted the recruitment, retention, and success of Māori enrolled in select undergraduate foundation and health programmes within tertiary institutions across Aotearoa. These are as follows:

1. Tertiary institutional and programme factors.
2. Relationships.
3. Culturally responsive teaching and learning practices.
4. Cultural identity.

A discussion of these themes and their relationship to the experience of Māori are presented in the following pages where barriers and enablers relating to Māori experiences have been identified at the different stages of the tertiary journey. Barriers are factors that resulted in challenges for Māori students and deterred their engagement, whereby enablers work against these. It is important to identify both barriers and enablers as it provides further understanding of what was valued by Māori during their experiences within tertiary education.

[21] Autonomous practitioners who work in a variety of healthcare settings and often work in multidisciplinary teams (Ministry of Health, 2023a).

2.3.1 Theme 1: Tertiary institutional and programme factors

This theme relates to key aspects of tertiary institutions or health programmes identified by Māori students to have positively or negatively impacted their journey. Included in this theme are the impacts of equity focused admission schemes and foundation programmes. Other features included in this theme relate to specific academic and cultural support factors offered to Māori students during different stages of their tertiary experience.

Enablers to Māori student experience

Foundation programmes and equity admissions schemes are well established, having been in operation within some tertiary health settings over the last two decades. An example is the Māori and Pacific Admission Scheme within the Faculty and Medical and Health Sciences MAPAS, University of Auckland (University of Auckland, n.d.). MAPAS is a foundation programme that supports Māori and Pacific student admission, retention, and success in tertiary health programmes and precedes enrolment into health degree programmes including medicine, nursing, pharmacy, and health science. Curtis et al. (2012b) writes that the MAPAS provides "supportive learning environments for Māori and Pacific students through comprehensive academic and pastoral support services and activities" (p. 10).

Programmes, like MAPAS, form part of a pipeline framework designed to support Māori students' transition from secondary education into the health workforce (Bristowe et al., 2016; Curtis et al., 2012a; Curtis et al., 2012b). These initiatives are deemed highly effective in scaffolding Māori into the tertiary environment and supporting their subsequent success due to the additional guidance and support offered to Māori students. Initially introduced because of low numbers of Māori entering the health workforce, foundation programmes and admission schemes are attributed with an increase in the number of Māori entering tertiary education (Curtis et al., 2012b).

Foundation and equity admission schemes have proved valuable from Māori student and whānau perspectives. Curtis et al. (2012b) found that when Māori students and their whānau were provided with the right information, including what subjects to take at school, it influenced Māori school students to consider a career in health which then led to their enrolment in health-related programmes. On account of these programmes, Māori students and their whānau were also able to overcome issues that arose during their tertiary experience (Curtis et al., 2012b).

The importance of the availability of foundation and equity admission programmes for Māori students in their first year of study have been demonstrated. Curtis et al. (2015b) examined

data collected from the MAPAS (equity focused quota entry system) and showed that 47% of Māori students were recommended to do a bridging or foundation programme, with only 13% recommended to go straight into first-year bachelor of health programmes[22]. These results demonstrate that a high percentage of Māori students required the additional academic support that foundational programmes offered prior to enrolling in a degree level programme. While this finding raises some concerns regarding the effectiveness of the secondary school sector preparing Māori to achieve success, this justifies the availability of admission schemes within the tertiary health setting[23].

Studies exploring Māori students' participation in foundation programmes and/or equity admission schemes have provided valuable information in terms of understanding what factors impact retention and success of Māori. Foundation programmes have a significant influence, particularly during the early stages of tertiary education (Bristowe et al., 2016). As a bridge into health degree programmes, these programmes positively influence Māori students' perceptions of the tertiary environment (Curtis et al. 2015a). A number of scholars exploring the impact of Māori-specific academic programmes have found strong associations between foundational programmes and enhanced Māori student engagement and academic outcomes (Bristowe et al., 2016; Curtis et al., 2015a, 2015b)

A strong association between foundation and/or equity schemes and the academic success of Māori has also been shown. Wikaire et al. (2017), in a quantitative study, demonstrated that Māori students who achieve good academic results in their first year continue to perform well in their later years of study. The authors proposed that first year foundation programmes have the potential to predict Māori student success. Further, these findings highlight the importance of the pipeline framework and the availability and accessibility of these support programmes for Māori students.

The success of Māori enrolled in foundation programmes has also been attributed to a variety of within programme factors. These specialised learning environments are valued highly by Māori students, due to the provision of cultural, academic, and pastoral support (Bristowe et al., 2016; Curtis et al., 2012a; Curtis et al., 2012b). In particular, the presence of Māori educators within these settings are identified as an enabling factor. Because of the unique support offered

[22] McAllister et al. (2019) outlined issues with the extent, accuracy, and access to data that relate to Māori students enrolled in tertiary organisations. Therefore, the data presented here may not give the clearest picture and the interpretation of these figures may not be representative of what was truly evident at the time.

[23] The new Government elected in 2023 have voiced plans to eliminate schemes such as the MAPAS that support Māori into tertiary health education.

by Māori educators, Māori students were more confident to bring themselves to the learning space (Curtis et al., 2012a). The availability and approachability of Māori educators is considered integral to Māori student success within foundation programmes.

Studies exploring the experiences of Māori students enrolled in health degree programmes (including midwifery, nursing, occupational therapy, and physiotherapy) identify similar factors that link with Māori student success (Chittick et al., 2019; Davis & Came, 2022; Patterson et al., 2017; Wikaire & Ratima, 2011; D. Wilson et al., 2011). Additional factors to those already mentioned include having a choice in the place to study. Māori midwifery and nursing students reported valuing opportunities to study both on and off campus, as this meant they could remain in the same region as their whānau (Patterson et al., 2017; D. Wilson et al., 2011). Because of this flexibility, the personal support systems they needed to be successful were maintained (Patterson et al., 2017). Financial benefits were also noted by Patterson et al. (2017). Other factors in health degree programmes that enhanced Māori student engagement included the provision of cultural support and an environment on campus that was welcoming (D. Wilson et al., 2011). The availability of childcare on site was also valued by Māori studying nursing and physiotherapy (Chittick et al., 2019; Wikaire & Ratima, 2011; D. Wilson et al., 2011).

Another key factor attributed to Māori success in both foundation and health degree programmes is the provision of Māori only spaces on campus. Māori-centric spaces provided Māori students a place to be together, establish relationships, and study with other Māori students. Practical support was made available in this space including access to computers, the internet, and printing facilities resulting in reduced study costs (Curtis et al., 2012a; Curtis et al., 2012b). Most importantly, Māori students felt accepted as Māori within these spaces (Bristowe et al., 2016; Curtis et al., 2012b). Studies show that when Māori students have access to spaces for themselves, sense of self-worth is strengthened and associated with success (Bristowe et al., 2016; Curtis et al., 2012a).

Barriers to Māori student experience

Institutional and programme factors also create barriers for Māori student success within the tertiary environment. On first entering the tertiary system, inadequate advice, guidance, and support during enrolment and admissions processes made the transition into the tertiary system difficult for some Māori (Curtis et al., 2015b) which has led to uncertainty about tertiary pathways and achieving long-term goals. This uncertainty is compounded further when Māori students do not have whānau nearby or established relationships with others within the programme to go to for support or advice (Bristowe et al., 2016). Poor preparedness of Māori students within the secondary school environment is another factor that can mar the successful

transition of Māori students into health degree programmes (Wikaire & Ratima, 2011). Māori students in foundation programmes described excessive travel times and cost of travel to their place of study impacted their ability to attend tutorials and clinical placements (Curtis et al., 2012b). Financial stressors such as high student loans and course fees are well-known barriers that impact not just Māori but all students completing their course of study (Curtis et al., 2012b). Lastly, a lack of basic study skills, and being unfamiliar with workload demands specifically impacts Māori student engagement (Curtis et al., 2012a; Curtis et al., 2012b). When the necessary steps are not in place, Māori can be deterred from beginning or completing their tertiary journey.

Similar barriers implicate Māori students enrolled in health degree programmes, attributing to poor retention and course completion rates. Wilson et al. (2011) found that although Māori nursing students met entry requirements for the programme, 63% reported not being prepared for academic study, and needed additional support to complete academic requirements. A lack of guidance about the course and assessment was also reported as a barrier to achieving success. Similar to foundation programmes, financial hardship (i.e. travel costs and university fees) is a barrier for Māori enrolled in health degrees, along with attending to whānau and work commitments in addition to course work (Chittick et al., 2019). Additionally, the limited number of health programmes throughout the country exacerbates some of these issues. In a study that explored Māori experience of physiotherapy education, it was reported that only two programmes to choose from, at either end of the country, created both financial and geographical barriers (there are now two additional programmes in the North Island). Māori students away from their whānau had to absorb additional costs including childcare (Wikaire & Ratima, 2011).

Barriers consistent across multiple health degree programmes included low numbers of Māori academic staff, poor recruitment strategies, no cultural induction for Māori students, poor links with Māori communities external to the university, and a lack of clarity regarding support mechanisms available to Māori students during their studies (Wikaire & Ratima, 2011; D. Wilson et al., 2011).With an array of factors that negatively influences the experiences of Māori within health degree programmes, additional support mechanisms for Māori are strongly advocated for. While some support systems are readily available, institutions need to be clearer regarding the type of support available for Māori. Recommendations include Māori support and academic staff being more visible so Māori students know who to go to in their time of need (Chittick, 2019). Further, while financial assistance is helpful, access needs to be easier (Chittick, 2019;Wikaire, 2011). Removal of these barriers may mean that Māori are better supported

towards success. For this to occur requires Māori support services to be better communicated to Māori students over the course of their studies.

2.3.2 Theme 2: Relationships

Relationships are highly valued by Māori students. This theme relates to the importance Māori students place on establishing relationships with whānau, their peers and educators, and the impact relationships can have on their experiences within the tertiary setting in terms of academic success and holistic well-being. The impact on students when relationships are not prioritised is also highlighted in this theme.

Enablers to Māori student experience

Māori students value opportunities to engage in inclusive practices, in particular whanaungatanga, during their studies (Davis & Came, 2022; Patterson et al., 2017; Wikaire & Ratima, 2011; D. Wilson et al., 2011). Establishing authentic relationships between Māori students and their peers, educators, and support staff provides an avenue to receive the support they need to be successful. For Māori students first entering a tertiary institution, little has been reported about the value that relationships bring for Māori. However, some evidence suggests that Māori students who are supported to sustain relationships with whānau and community engage better with their studies (Curtis et al., 2012b). These whānau-based relationships also positively impact Māori student transition into the tertiary environment, and enhance social development (Curtis et al., 2012a).

Māori students enrolled in health degree programmes consider relationships with whānau as an enabling factor, particularly in terms of offering personal and financial support for (Chittick et al., 2019; D. Wilson et al., 2011). Wikaire and Ratima (2011) noted that Māori physiotherapy graduates relied heavily on whānau as they transitioned into the tertiary environment. Whānau provide encouragement and emotional support, and Chittick et al. (2019) reported that due to the significant contribution that whānau made towards childcare arrangements, Māori nursing students engaged more fully in their studies. Academic success for Māori in health degree programmes was, therefore, attributed to whānau support.

A strong link between academic success and relationships with peers is evident within the literature. In foundation programmes, through bonding with their peers, Māori students felt supported to overcome some of the barriers they experienced within the tertiary environment (Curtis et al., 2012a; Curtis et al., 2012b). Bristowe et al. (2016) reported that peer relationships resulted in close bonds that resembled whānau-like relationships; hence, are highly valued aspects of Māori student experiences. Māori students in foundation programmes benefit

significantly from developing relationships with peers in higher year groups, and receive additional study support and advice with respect to developing good study habits and preparing for exams. As a consequence, Māori students in these programmes gain good insight into what is required to successfully meet academic outcomes (Bristowe et al., 2016; Curtis et al., 2012a; Curtis et al., 2012b). These important relationships relate closely to Māori student empowerment; when Māori students felt empowered, they were more likely to engage in their learning (Curtis et al., 2012a). Conversely, when Māori students were not socially connected, this brought about feelings of isolation and a lack of belonging were reported (Bristowe et al., 2016; Curtis et al., 2012a; Curtis et al., 2012b).

Similar findings have been reported for Māori students in health degree courses; however in addition to whānau, trusting relationships established with academic educators were also noted as integral to Māori success (Chittick et al., 2019; Wikaire & Ratima, 2011; D. Wilson et al., 2011). Relationships with educators are highly valued by Māori students and are associated with successful academic outcomes and enhanced well-being.

Barriers to Māori student experience

With whānau relationships vital to Māori student experience, it is understandable that for Māori students, being away from home has significant ramifications in terms of their emotional well-being (Curtis et al., 2012b). For a high proportion of Māori enrolled in tertiary studies, they are often the first of their whānau to attend higher education. Thus, while whānau are a key support factor, with little understanding of this environment, they could not provide the support Māori students needed to cope within this environment (Bristowe et al., 2016). Further responsibilities towards whānau were described by some Māori students as a hindrance to fully engaging in studies (Chittick et al., 2019; Patterson et al., 2017). Attending tangihanga (bereavement ceremonies), for example, meant having to take a significant amount of time away from studies (Patterson et al., 2017). Missing a number of lectures and tutorials put students behind with course work (Patterson et al., 2017; Wikaire & Ratima, 2011). To meet whānau obligations, some Māori students needed help navigating these commitments during study.

Relationships are a valued aspect of Māori experiences within all areas of tertiary study. Yet, it was noted that few opportunities for relationships to prosper were implemented within courses of study. This was particularly in relation to Māori students developing and building relationships with Pākehā and Tauiwi educators. As a result, Māori students describe feeling disconnected with educators and their studies (Davis & Came, 2022; Wikaire & Ratima, 2011). Davis and Came (2022) write that because relationships were not established, Māori

occupational therapy students felt culturally unsafe and, as a result, were apprehensive to ask for support from educators when needed. In physiotherapy, similar findings are reported (Wikaire & Ratima, 2011). With little focus on relationship building, Māori physiotherapy students did not receive appropriate academic and pastoral support, which impacted their ability to be successful (Wikaire & Ratima, 2011). When the needs of Māori students are not met, it can have a significant impact on academic outcomes and holistic well-being.

2.3.3 Theme 3: Culturally responsive teaching and learning practices

Culturally responsive teaching and learning practices significantly impact the experiences of Māori, particularly in terms of their level of engagement and participation during their studies. This theme relates to culturally responsive teaching and learning practices considered essential to supporting Māori student participation and engagement, and enhancing academic and personal success, including learning requirements being met. Teaching practices that did not support success are also identified.

Enablers to Māori student experience

The teaching and learning environment is a key factor that impacts Māori student success irrespective of what stage they are in, in their tertiary journey. Increased satisfaction has been reported by Māori students who engage in culturally safe teaching and learning environments both within class settings and the clinical environment (Bristowe et al., 2016; Curtis et al., 2012a; Curtis et al., 2012b). Generally, educators who are highly skilled and knowledgeable provide the most effective teaching and learning experiences in terms of offering high-quality tutorials, and use stimulating and relevant teaching practices (Curtis et al., 2012b).

Educators in foundational programmes who are more 'culturally aware' support Māori student success. Curtis et al. (2012b) reported that Māori educators are more understanding of the complexities of 'being Māori' within a westernised tertiary environment, and tend to adopt more holistic teaching and learning styles that are different to non-Māori educators. While this aids the removal of academic barriers for Māori students, fostering participation within a culturally familiar environment enhances sense of worth within the learning environment (Curtis et al., 2012a).

The literature maintains that Māori educators in foundation programmes contribute significantly to the experiences of Māori students. The adoption of culturally responsive teaching practices that include the prioritising relationship building within the classroom setting make Māori educators more approachable compared to non-Māori educators (Curtis et al., 2012a; Curtis et al., 2012b). Additionally, Māori educators more readily value and respect Māori

students' own cultural knowledge. As a result, Māori students contribute their own views and perspectives with confidence within group learning environments (Curtis et al., 2012a; Curtis et al., 2012b). Other strategies adopted by Māori educators considered important in the learning environment include the: use of small group learning sessions, provision of additional tutorials outside of class time, and use of te reo and pronouncing Māori names correctly (Bristowe et al., 2016; Curtis et al., 2012b). These strategies have been described to "harness the positive cohort effect" (p. 597) that Curtis et al. (2012a) related to the promotion of Māori students working together and which is strongly associated with Māori student success.

In health degree programmes, similar teaching and learning practices to those described previously enhance Māori student experience and success. Equally important in these settings is the development of authentic connections with other Māori students and educators in classroom and clinical settings (Chittick et al., 2019; Davis & Came, 2022; Wikaire & Ratima, 2011; D. Wilson et al., 2011). In the same way, the inclusion of Indigenous content within course curricula contributes to a valued and positive experience (Chittick et al., 2019; Davis & Came, 2022; Patterson et al., 2017; Wikaire & Ratima, 2011; D. Wilson et al., 2011). Māori educators are more inclined to deliver strength based Indigenous content compared with non-Māori educators which, consequently, increases Māori student engagement (Wikaire & Ratima, 2011; D. Wilson et al., 2011). When Māori students' own culture is 'seen' within the teaching and learning environment, they feel more inspired to make a difference as a Māori health professional. Culturally responsive teaching and learning experiences impact the experiences of Māori within the tertiary environment in a number of ways, and can have a significant effect on Māori student retention and success. Collaborative culturally responsive teaching and learning environments contribute significantly to Māori students' academic success, their well-being, and sense of belonging within the tertiary environment.

Barriers to Māori student experience

Not all Māori students experience success in the tertiary environment. Some teaching and learning strategies adopted by educators can create barriers to Māori student learning, resulting in negative experiences and poorer academic outcomes. In foundation programmes, studies show that negative teaching and learning experiences were attributed to educators (particularly non-Māori educators) who did not make an effort to interact with Māori students, and/or lacked teaching experience (Curtis et al., 2012b). Further, the delivery of a westernised based curricula that perpetuated negative Māori stereotypes was also reported as an issue (Curtis et al., 2012b). In these situations, Māori students felt less willing to participate and engage in the learning experience.

In health degree programmes additional barriers to those already presented impact effective learning experiences. In midwifery, Māori students reported that culturally unsafe teaching and learning environments, the location of clinical placement, and lack of visibility of Māori educators on campus and clinical placement negatively impacted their learning experience (Patterson et al., 2017). Davis and Came (2022) explored the experiences of Māori occupational therapy graduates and found that collaborative and participatory learning styles are generally not supported by non-Māori educators in these settings which negatively impacted Māori student engagement in the programme.

Assessment processes adopted to evaluate culturally related content in health degree programmes is also identified in the literature as a hinderance for Māori students. In occupational therapy, concern was raised regarding the ability of non-Māori educators to evaluate cultural components and/or competencies appropriately due to their low level of cultural competence (Davis & Came, 2022). It is important to Māori students that they can express their own views within assessments, and that these be acknowledged and assessed accordingly. Low numbers of Māori educators in health education presents a significant issue in terms of the assessment of culturally related material.

Issues surrounding the delivery of a mono-cultural curricula, further accentuated by large numbers Pākehā and Tauiwi educators, are identified in the literature is a problem encountered by Māori students enrolled in health education. Wikaire and Ratima (2011) argued that consequently, all new graduates are not prepared adequately with the right skills and knowledges to contribute effectively to the health and well-being of the community that is being served. Course curricula, and the way it is delivered and assessed both influences the experiences of Māori during their studies and has ramifications for the development of a culturally safe workforce. There are also influences in terms of retention of Māori within health education, career decisions, and subsequent transition into the health workforce.

2.3.4 Theme 4: Cultural identity

The importance of cultural identity is the final theme in this literature review. Represented within this theme is the importance of normalising Māori culture, where Māori students can freely express who they are as Māori within educational spaces. Factors that enhance cultural identity are identified, as with the connection between identity and well-being. Aspects of the tertiary experience that undermine cultural identity are also highlighted.

Enablers to Māori student experience

Studies show that Māori students with an enhanced cultural identity within the tertiary environment correlates with academic success (Bristowe et al., 2016; Curtis et al., 2012b). Affirmation of cultural identity can be supported in several ways. The provision of culturally appropriate support, access to Māori role models and mentors, and culturally relevant teaching and learning experiences within the classroom and on clinical placement are considered by Māori students as enabling of cultural identity (Curtis et al., 2012a; D. Wilson et al., 2011).

The provision of Māori-centric spaces alluded to earlier in theme 1 is also linked with enhanced cultural identity (Bristowe et al., 2016; Curtis et al., 2012a). Māori students enrolled in foundation programmes reported that in culturally safe spaces based on shared cultural values and beliefs they were more confident to express themselves as Māori (Curtis et al., 2012a; Curtis et al., 2012b). The values-based approach embodied within these spaces, is attributed to a space considered culturally safe by Māori as their identity as Māori is upheld. Some teaching spaces were identified as culturally safe. An example was presented by Curtis et al. (2012b) who wrote that use of karakia (reciting of appropriate prayer or blessing) when Māori students worked with cadavers in medical laboratories supported the development of a culturally safe space.

When cultural identity is valued, it can result in enhanced cultural pride. Reports indicate that this is most evident when Māori educators offer Māori perspectives during teaching and learning experiences, and invite Māori students to share their own views (Bristowe et al., 2016; Curtis et al., 2012a). Cultural activities offered outside of academic programmes but still within the wider programme that centred on whanaungatanga also support cultural identity (Curtis et al., 2012b). Studies that explored the experiences of Māori enrolled in foundation programmes indicated that where there are opportunities that affirm Māori perspectives and values, Māori students felt 'seen' as Māori within these environments which impacted retention and success.

For Māori students expressing who they are within the learning environment is meaningful. Likewise, the affirmation of te ao Māori within the educational space was valued and resulted in Māori students feeling culturally nurtured (Chittick et al., 2019; Patterson et al., 2017; Wikaire & Ratima, 2011; D. Wilson et al., 2011). Additionally, the presence of Māori educators contributes to the strengthening of cultural identity due to the focus they place on establishing relationships and building authentic connections (Chittick et al., 2019; Davis & Came, 2022; Patterson et al., 2017; Wikaire & Ratima, 2011). The way in which they were able to interweave cultural processes that aligned with te ao Māori within teaching and learning activities further supported cultural identity (Chittick et al., 2019; Davis & Came, 2022; Patterson et al., 2017;

Wikaire & Ratima, 2011; D. Wilson et al., 2011). Furthermore, Chittick et al. (2019) wrote that Māori nursing students become more confident to engage in teaching and learning opportunities and are motivated to succeed when their cultural identity is enhanced.

Becoming a Māori health professional is an integral part of identity formation for Māori students enrolled in health degree programmes. In all the studies reviewed, it was clear that the aspirations of Māori students were to enter the health workforce as a Māori health professional. It is also important to Māori students that there is increased visibility of Māori within the health workforce, and achieving this outcome is a marker of success (D. Wilson et al., 2011). The aspiration to make a difference for Māori is shared by Māori across a variety of health programmes and provides a motivating factor towards educational success (Chittick et al., 2019; Davis & Came, 2022; Wikaire & Ratima, 2011; D. Wilson et al., 2011).

Barriers to Māori student experience

Conversely, the success of Māori can be hindered when there is minimal or no recognition of cultural identity within the tertiary environment (Curtis et al., 2012b). There are several factors reported to compromise cultural identity. Davis and Came (2022) adopted the term "cultural dissonance" (p. 417) when they referred to Māori occupational students' experience of 'disharmony within themselves' when cultural values and beliefs were either not respected or integrated within the programme. In the study by Wikaire and Ratima (2011), Māori physiotherapy students felt pressured to conform to the expectations of non-Māori academic and clinical educators, rather than their own values. In the instance where Māori students were made to take off clothes down to their underwear in mixed gender practical classes their identity was compromised and the situation was regarded as culturally inappropriate. These experiences negatively impacted Māori students' identity.

In the literature it is reported that non-Māori educators often show a lack of cultural competence within educational settings. This is most apparent when educators fail to acknowledge what is considered important to Māori which includes failing to establish relationships and make connections within the teaching and learning environments (as alluded to in theme 2) (Chittick et al., 2019; Patterson et al., 2017; Wikaire & Ratima, 2011). Māori students also have to constantly navigate te ao Māori and the western worlds, and when they are not supported they cannot be themselves as Māori within these environments (Davis & Came, 2022; Wikaire & Ratima, 2011). Conversely, there are instances, particularly within the clinical settings, where Māori students are relied on by non-Māori educators to advise on 'culturally appropriateness', irrespective of their cultural knowledge and skills in this area (Wikaire & Ratima, 2011). Lack of cultural awareness or inappropriateness shown by such

educators behaviour further compromises Māori student identity and impacts their ability to engage fully as Māori during their studies.

Within this last theme, there is a connection between cultural identity and the experience of racism. While there are many forms of racism, institutional racism[24], for example, is evident for Māori at all stages of the tertiary experience. Some examples include Māori students in foundation programmes being accused by their non-Māori peers and educators of being accepted into academic programmes because they are Māori (Curtis et al., 2012b). Racism occurs on campus and clinical placement (Chittick et al., 2019). Wikaire and Ratima (2011) wrote that Māori students studying physiotherapy were accused by non-Māori educators and peers of receiving "special treatment" (p. 482) when they received additional academic support compared to their non-Māori counterparts.

Developing resistance to racism forms a significant part of a Māori student's educational journey (Chittick et al., 2019; Davis & Came, 2022; Wikaire & Ratima, 2011; D. Wilson et al., 2011). Māori students must adopt self-selected strategies to stand up to racism. Strategies include taking on leadership roles particularly while on clinical placements to support non-Māori students and educators understanding of racism (Chittick et al., 2019). Through this review of literature it is evident that racism is not well understood by educators within tertiary health education, and that management of racism needs to be improved to change the overall culture within these environments.

The last factor addressed in this theme relating to cultural identity is the importance of cultural safety. This, too, was also poorly demonstrated across the tertiary environment (Curtis et al., 2012b; Patterson et al., 2017). Davis and Came (2022) reported that Māori occupational therapy students often have to navigate situations they regard as culturally unsafe. Being asked to treat Māori patients because they are Māori and speak te reo or lead cultural processes are examples of practice that are considered culturally unsafe for Māori students. Irrespective of their connection to te ao Māori, multiple studies show that expectations are often placed on Māori students by non-Māori to advise on anything 'Māori' related (Davis & Came, 2022; Patterson et al., 2017; Wikaire & Ratima, 2011). This positions Māori students in a vulnerable position. With limited support to manage these situations, feeling culturally unsafe creates a barrier to their learning and negatively impacts their desire to become a Māori healthcare practitioner in light of the challenges they would potentially face within this environment in the

[24] Institutional racism is defined by Came and McCreanor (2015) as "an entrenched pattern of differential access to material resources and state power determined by ethnicity and culture, which advantages one population while disadvantaging another" (p. 25).

future (Davis & Came, 2022; Wikaire & Ratima, 2011). Evidence of non-Māori educators demonstrating culturally unsafe behaviour across most health education programmes suggests that the concept of cultural safety is not well understood by non-Māori educators and clinicians.

Courses on cultural safety are offered to students. Their inclusion suggests that cultural safety is an important attribute of health professionals. However, in some programmes, including occupational therapy and physiotherapy programmes, cultural safety courses are optional for students (Davis & Came, 2022; Wikaire & Ratima, 2011). Davis and Came (2022) argued that for non-Māori students who opt not to take these courses, it is detrimental to their growth of self-awareness and ability to offer culturally safe health services for Māori and their communities. Whereas Wikaire and Ratima (2011) stated that when Māori students engage in these courses, it provides an additional means to develop their own identity and confidence; along with further developing their skills and knowledge in the cultural space. As a result, Māori students' sense of belonging can be strengthened within the healthcare setting (Wikaire & Ratima, 2011). Several authors argued that to develop a health workforce that contributes effectively to health equity, all students in health degree programmes need to develop their understanding of and ability to engage in clinical practice deemed by recipients of care as culturally safe (Davis & Came, 2022; Wikaire & Ratima, 2011; D. Wilson et al., 2011).

While the concept of cultural identity is a valued aspect of the Māori student experience within tertiary education, evidence shows that there are some complexities or challenges regarding Māori students feeling acknowledged as Māori. Non-Māori educators have a responsibility to support the cultural identify of Māori within these settings; but, for this to be successful, non-Māori educators need to improve their understanding of how to create culturally safe spaces. The provision of appropriate support in conjunction with Māori knowledge systems and values encompassed within curricula and pedagogical approaches will help strengthen the identity, place, and experiences of Māori enrolled in health education (Bennett, 2003; Royal, 2022; Sciascia, 2017; Tertiary Education Commission, 2012; Waiari et al., 2021).

2.3.5 Experiences of Indigenous students in tertiary education worldwide

Literature that has explored the experience of Indigenous people's experiences enrolled in tertiary institutions worldwide have shown similar findings to Māori (Walton et al., 2020). Factors associated with educational success included acknowledgement of Indigenous students' culture; relationships with educators and peers; culturally safe learning and teaching strategies including quality Indigenous academics, culturally appropriate pedagogy and curricula, and the establishment of Indigenous education support units (Asmar et al., 2011; Goold et al., 2002; Loftin et al., 2012; Lydster & Murray, 2019; Martin & Seguire, 2013; Milne et al., 2016; Rigby et

al., 2011; Taylor et al., 2019).The main challenges attributed to disproportionate small number of Indigenous students attending or completing tertiary education included the transition from school into tertiary and not being prepared academically, being away from family or family responsibilities, cultural unsafe learning environments, financial hardship, discrimination and racism (Lydster & Murray, 2019; Milne et al., 2016; Taylor et al., 2019).

2.3.6 Summary

Four themes emerged from this narrative review of literature: tertiary institution and programme factors, relationships, culturally responsive teaching and learning practices, and cultural identity. Highlighted within these themes are the key factors that impact the recruitment, retention, and success of Māori students at all stages of their tertiary health journey and represent the experiences of Māori in a variety of programmes at tertiary level. This review has highlighted that success for Māori relates to both academic success and the factors that support the development of their cultural, social, and emotional well-being throughout their tertiary journey. Tertiary institutions have an important role in providing support and guidance to Māori students and their whānau throughout all stages of their journey. While many factors support Māori retention and success at different levels of the tertiary environment, changes are needed to help Māori students navigate the challenges associated with studying within westernised institution and achieve success in their chosen course of study.

The literature search has also highlighted the lack of published literature with specific reference to the experience of Māori within tertiary health education, which includes physiotherapy. Further studies that specifically address how Māori students can be supported more appropriately by educators within physiotherapy programmes are critical to enhancing Māori student recruitment, retention, and success within physiotherapy education in the future. Doing so will also have implications for developing the Māori physiotherapy workforce and contributing to health equity in the future. Nevertheless, the studies reviewed have all shown how powerful the voice of Māori is as valuable insights have been gained pertaining to the lived experiences of Māori within these educational environments.

Chapter 3 Methodology

> Nāu te rourou, nāku te rourou ka ora ai te iwi
>
> With my food basket and your food basket, together the people will thrive. (author unknown)

3.1 Introduction

A Māori-centred methodological framework was adopted in this research to explore the experiences of Māori in physiotherapy education and facilitate transformative change within physiotherapy education. The amalgamation of a Māori-centred framework congruent with a Māori worldview was sought to provide an opportunity for Māori to reclaim a positive role in re-shaping physiotherapy education that privileges Māori knowledges, values, and perspectives.

In this chapter, the cultural paradigm represented within a Māori-centred framework is described. The metaphor of te whāriki, or the woven mat, is used to describe this framework of interlinking philosophies, whereby each is represented by a different thread of te whāriki. These threads include te Tiriti, Te Ara Tika Māori ethical research guidelines, the theories of kaupapa Māori research, and appreciative inquiry. Each thread is discussed separately, then collectively as te whāriki, in terms of their relevance to this research. As these concepts are described, the factors relevant to the creation of a culturally safe research environment for Māori to engage are highlighted. To my knowledge, the application of a Māori-centred approach to appreciative inquiry to induce cross-cultural collaboration and innovation through participatory methods has not previously been implemented within the physiotherapy educational environment.

3.2 The research paradigm

Research is a tool used to discover new knowledge. By expanding our knowledge, we can better understand the world around us, and support change within a society. In a review pertaining to Indigenous research paradigms, Hart (2010) wrote that “the way people see the world will influence their understanding of what exists” (p. 7). This concept has relevance to the current research with respect to differences in worldviews that exist between myself, a Pākehā researcher, and Māori co-inquirers involved in this research. Because of our differences in worldview, the approach to this research required careful consideration so congruency was established between the aims, methodological processes, and expected outcomes of the research (Moon & Blackman, 2014).

Given a key aspect of this research was to explore the experiences of Māori, it necessitated the inclusion of a culturally-based methodological framework whereby Māori would be appropriately supported throughout the process. Fundamental to its success would be to explore the experience of Māori in a way that was respectful and mana enhancing (Barnes, 2013; Berghan et al., 2017; Carpenter & McMurchy-Pilkington, 2008; Curtis, 2016; Gibbs, 2001; Hudson et al., 2010; Jones, 2012; Reid et al., 2017; Smith, 1999). Hence, to achieve this outcome, a Māori-centred methodological framework was established in collaboration with Māori.

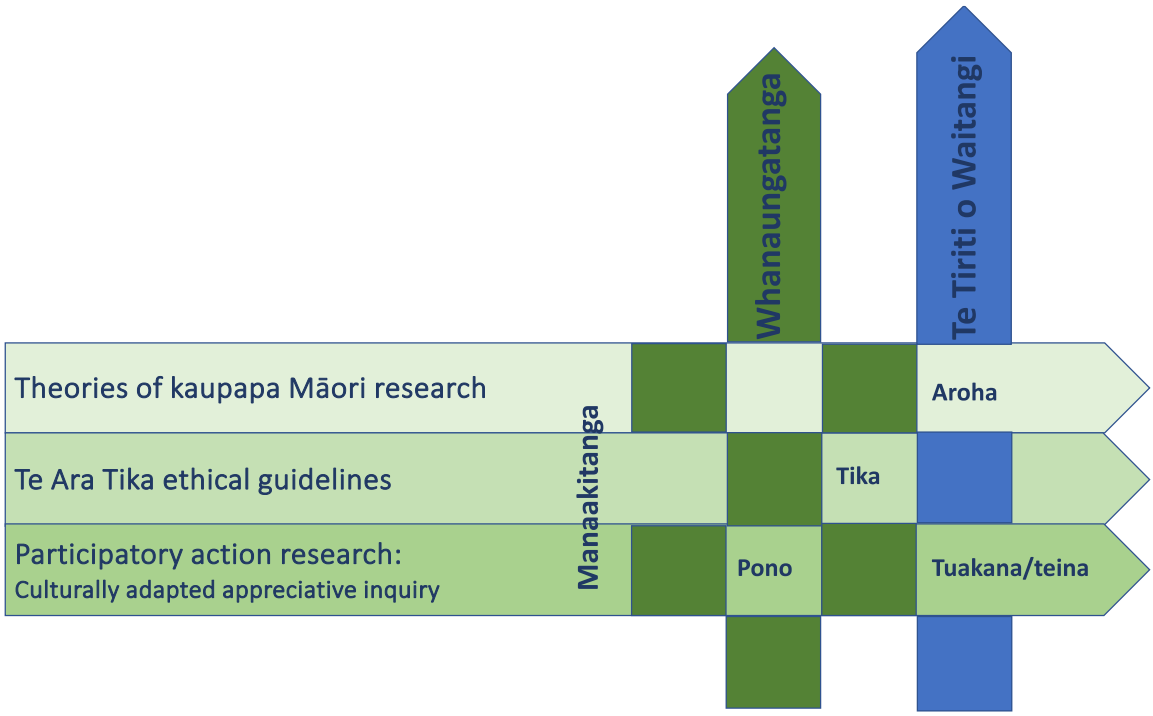
3.3 Te Whāriki–a place to stand together

A culturally adapted approach to appreciative inquiry was developed to support Māori engagement and participation; and interweave Māori knowledges, beliefs, and values with a westernised philosophical approach. It was felt that establishing a more inclusive, relational, and holistic approach to the research process would create a space for different worldviews to interconnect and strengthen outcomes of transformative change. Through the integration of cultural practices, values, and beliefs, combined with the principles of action research and appreciative inquiry, a shared space with which to explore and understand the experiences of Māori was achieved.

The resultant culturally adapted framework is represented by te whāriki, a 'woven mat' typically constructed from the interweaved strands of harakeke (flax), a native plant to Aotearoa (harakeke are in the foreground in the photo of Kaikoūra on p. xiv). The harakeke weaving metaphor, or te whāriki, is often employed in te ao Māori to represent multiple ideas and constructs woven together (Ministry of Education, 2017; Nicholson et al., 2019). With respect to this research, te Whāriki depicts the interlinking of different threads of western and Indigenous paradigms and principles (refer to Fig. 3). Te Tiriti and Māori values interlink each individual thread and, together, these threads form the guiding philosophies of this methodological framework. The 'woven mat' that comes from the interweaving of these guiding philosophies provides this shared space for Māori, Pākehā and Tauiwi 'to stand' so that outcomes of transformative change that will benefit Māori are generated. The adoption of this metaphor aligns with the kaupapa Māori principles embraced throughout this research.

Figure 3

Te Whāriki-A Māori-Centred Methodological Framework



Note. This representation of the Māori-centred framework adopted in this research interweaves the theories of kaupapa Māori research, Te Ara Tika ethical guidelines, and appreciative inquiry. Linking these main threads are the strands derived from te Tiriti o Waitangi and Māori values of whanaungatanga manaakitanga, pono, tika, and aroha (these values are described in more detail in section 3.9)

Te whāriki is symbolic of collaboration. In this research it provides the foundation for Māori, Pākehā, and Tauiwi to create a shared research space to work alongside each other appropriately, effectively, and with respect, where Māori knowledges and perspectives are privileged. The metaphor that leads this chapter 'Nāu te rourou, nāku te rourou ka ora ai te iwi – with my food basket and your food basket, together the people will thrive' reinforces this concept of sharing knowledge and ensuring the well-being of everyone is looked after.

To follow, each strand of te whāriki is described. Te ao Māori underpin some aspects of this framework; therefore, elements that relate to te ao Māori are presented first to give context to their inclusion. In support, literature authored by Māori scholars is presented as Māori are the only authority on te ao Māori. Te ao Māori is sacred and means different things to Māori within different hapū and contexts. Hence, some of the concepts described here will not represent everyone's views.

3.4 Ontological perspectives and te ao Māori – the Māori worldview

An ontological perspective defines what is real (Moon & Blackman, 2014). For Māori, the terms ontology and worldview are used interchangeably to describe 'being Māori' within a Māori world (Curtis, 2016; Hart, 2010; Wilson, 2001). For Māori, their worldview is defined by te ao Māori (Māori worldview) as this defines what is real for them. While many Māori consider te ao Māori a central aspect of their identity, it is important to note that there are many perspectives and levels of understanding embodied within te ao Māori (Hudson, 2004). Thus, Māori worldviews are not homogenous, as supported by Durie (2009) who wrote that not all Māori "subscribe to the same beliefs or ways of understanding" (p. 4). However, there are some common features of te ao Māori and these have relevance to the current research. One of the most defining features of te ao Māori is the concept of relationality (Durie, 2001; Henry & Wolfgramm, 2018; Kingi et al., 2017; Royal, 2012; Salmond, 1983). Te ao Māori is strongly relational and from this ontological base comes the fundamental belief that knowledge is relational and should be shared with all of creation (Royal, 2012). This is contrary to westernised paradigms that tend to individualise knowledge (Chilisa, 2012; Meyer, 2014).

This concept of relationality is one of the more widely recognised aspects of te ao Māori. Many Māori have a close connection with their whakapapa (descendants or lineage) and it is often demonstrated when Māori share their extended whānau connections through pepeha. Renown Māori scholar, Cleve Barlow (1991), further extended the concept of relationality by describing whakapapa as the genealogical ties between: people (who are living and those who have passed), the environment (the land and the sea), and the cosmos (the universe). These narratives illustrate unique inter-relationships that shape te ao Māori.

The concept of spirituality is also evident within te ao Māori. It is regarded as the interconnecting link with the physical realm, so for Māori with a deepened perspective of te ao Māori, spirituality connects them to the living and the non-living (Ruakere, 2016). Nicholson et al. (2019) wrote that "the spiritual aspect of well-being is not necessarily equated with religion but refers to the wider concerns of humanity and the environment, addressing shared values and meanings, and the ultimate purpose of human life" (p. 34).

The connectedness that transpires from both physical and spiritual realms is thought to transpire through whakawhanaungatanga (Curtis, 2016; Hart, 2010; Royal, 2012; Ruakere, 2016), the process Māori commonly engage with to establish relationships and making connections through shared genealogy. However, for Māori whakawhanaungatanga is considered more than just 'building' a relationship, it provides a means through which Māori

can come to know their worlds (Barlow, 1991). Also highly valued by Māori is the process of whanaungatanga (relationships, kinship, sense of connection through shared experiences) as it places a focus on connecting and understanding each other so that relationships can be maintained (Mead, 2003). The knowledge gained initially through whakawhanaungatanga then whanaungatanga thereafter, is considered vital to developing a sense of belonging (Cram, 2019; Nicholson et al., 2019; Spiller et al., 2011).

The concept of reciprocity is also valued in te ao Māori. Related to relationality, reciprocity enhances connectivity between people. Hart (2010) wrote that "Reciprocity reflects the relational world and the understanding that we must honour our relationships with other life" (p. 7). Hence, reciprocity forms a significant part of the lives of Māori, and influences interactions with others. Gall et al. (2021) encapsulated the meaning of reciprocity in the following statement: "individuals think not only about themselves when making decisions, but rather, the whole community" (p. 2). It is not uncommon for Māori to be seen striving to support their own communities, as was evident during the COVID-19 pandemic (Te One & Clifford, 2021).

Some of the characteristics of te ao Māori shared here represent what it is to 'be Māori', and these are traits common to Indigenous peoples worldwide (Curtis, 2016; Curtis et al., 2023; Meyer, 2014; Smith, 1999). Developing an understanding or awareness of the worldviews that are unique to Indigenous peoples is critical to working effectively within a cross-cultural research space. When these worldviews are respected, the appropriate steps can be taken to bring two worldviews together, creating a research experience that is both respectful and mana enhancing for Māori (Came, 2013; Hudson et al., 2010; Hudson & Russell, 2009). Supporting Māori participation and engagement in ways that are valued by Māori will potentially result in research outcomes that will advance Māori.

3.5 Māori epistemology

Where ontological perspectives define what is real, epistemology defines the way people know things (Crotty, 1998; Hart, 2010; Moon & Blackman, 2014). Meyer (2014) argued that Indigenous peoples view knowledge as that which has been gained through experience, and has developed over many years, generations, and lifetimes. Founded on the premise of constructivism, the characteristics of te ao Māori are derived from both traditional and contemporary experiences. Deduced socially from existing values, culture, language, and human understanding, an epistemological perspective unique to Māori has evolved (Curtis, 2016; Martel et al., 2022; Smith, 1999).

Māori knowledges are derived from mātauranga (Māori knowledge and wisdom) and tikanga (Māori customary systems of values and practices) that have originated from Māori ancestors including values and attitudes (Henry & Pene, 2001; Mead, 2016; Ruakere, 2016; Smith et al., 2012). Mātauranga is described further as a unifying concept, a body of wisdom that links past, present, and future generations (Mikaere, 2017; Royal, 2012). Tikanga is expressed as a set of Māori values and beliefs that guide and/or govern social norms for Māori to live by (Hetaraka, 2019). Consequently, mātauranga and tikanga have guided Māori through life for a number of years. The importance of being guided by Māori knowledges and values is reinforced by Henry and Pene (2001) who stated: "for Māori to live as Māori is to live according to tikanga Māori, that which is tika and true" (p. 237). Embedded within rituals, practices, and ceremonies, these Māori forms of knowledges are interwoven with sacredness and are valued highly (Barlow, 1991; Henry & Pene, 2001).

The traditional forms of Māori knowledges have been passed down over generations through oral means including pūrākau (story telling), waiata (songs), and mōteatea (chanted song-poetry). Consequently, mātauranga and tikanga have continued to develop within the contemporary environment despite the impacts of colonisation and Māori constituting a demographic minority within Aotearoa (D. Wilson et al., 2021). Although many Māori describe themselves as westernised, their cultural heritage derived from these cultural values, beliefs, and customs, passed down from their ancestors, are still recognised and valued. In addition, urban Māori have described feeling more supported to embrace who they are, where there are opportunities that honour these traditional knowledges (Webber et al., 2013). Nonetheless, a cross-cultural research environment that centralises Māori knowledges and practices, bringing into focus what is important to Māori, may contribute to both the preservation and growth of Māori knowledges for Māori involved in this research.

3.6 Axiology

Axiology is regarded as a branch of philosophy that centres on morals or values that people hold; hence, it is an integral part of a research paradigm (Chilisa, 2012; Cram, 2019; Martel et al., 2022). When researchers are guided by their own personal accountability, it can impact the conduct of research. If positionality is considered carefully, it may result in research practice that respectfully represents those involved (Bishop, 1996; Chilisa, 2012; Porsanger, 2004). Axiology helps to define research relationships and responsibilities of those involved, the processes used to gain knowledge and for what that knowledge will be used. This aligns with ethical research practices (Chilisa, 2012; Cram, 2019; Crotty, 1998; Hudson et al., 2010; Wilson, 2019; Wilson, 2001). While axiology is firmly evident within Indigenous research practice (e.g.,

kaupapa Māori research theory and practice), it is not featured as prominently in westernised research practices (Chilisa, 2012; Cram, 2019).

There is a strong link between axiology and ethical research practices (Chilisa, 2012). Distinguished Professor Linda Tuhiwai Smith (1999), an internationally recognised Māori researcher and scholar, stated that both ethical and culturally accepted approaches to the study of Indigenous issues are essential for determining outcomes that will benefit Māori. This relates specifically to the behaviour, values, and attitudes of the researcher. In the context of the current research, axiology was a prominent feature of the cultural framework, relating specifically to engaging authentically with Māori throughout the practice of values based research.

3.6.1 Te Tiriti o Waitangi and its relationship to research practice

The aspirations of te Tiriti connect strongly to the practice of ethically and culturally appropriate research. As such, te Tiriti is central to the current research, providing a key strand to the framework to navigate the relationship between Māori, Pākehā, and Tauiwi throughout this journey.

Māori researchers write of the responsibility that Pākehā and Tauiwi researchers have to conduct research that is responsive to, and promotes equitable outcomes for, Māori (Reid et al., 2017; Smith, 1999). Under the guidance of te Tiriti, issues important to Māori can be suitably addressed, enhancing the prospect of research outcomes that benefit Māori and their communities (Barnes, 2013; Bishop, 2011; Curtis, 2016; Durie, 2004; Gibbs, 2001; Jones et al., 2006; Reid et al., 2017; Royal, 2012; Smith, 1999).

Honouring te Tiriti in the current research

Te Tiriti is the foundation of the proposed methodological framework. Positioning te Tiriti centrally, signifies its key role by way of forging an aspirational pathway for Māori in physiotherapy education in the future. The adoption of a power sharing approach to the research and valuing the perspectives of Māori is fundamental to meeting te Tiriti obligations demonstrated by a number of Māori and non-Māori researchers (Barnes, 2013; Came et al., 2020b; Carpenter & McMurchy-Pilkington, 2008; Cram, 2019; Curtis, 2016; Gibbs, 2001; Jones, 2012; Jones et al., 2006; Reid et al., 2017; Smith, 1999). The preamble and four articles of te Tiriti (kāwanatanga, tino rangatiratanga, ōritetanga and wairuatanga) are briefly described to

demonstrate how te Tiriti[25] will be honoured within the proposed research. These have been based on recommendations by many scholars who are experts in conducting cross-cultural education and health research in Aotearoa (Barnes et al., 2017; Berghan et al., 2017; Came et al., 2020a; Healy et al., 2012; Hudson et al., 2010; Kidd et al., 2022; Kingi et al., 2017; D. Wilson et al., 2021). Furthering my own knowledge and understanding of te Tiriti has been critical to ensuring te Tiriti is honoured respectfully in this research space.

Pre-amble of te Tiriti: outlines the importance that Māori place on establishing relationships. To fulfil this promise, cultural processes of engagement to establish and maintain relationships with Māori are a dominant feature of the research.

Article 1: considers governance. In terms of meeting the requirements of kāwanatanga, engaging and collaborating with Māori. Promoting Māori leadership is critical during the initial design stages and the implementation of the research.

Article 2: tino rangatiratanga considers self-determination of Māori. In a research space it relates to how well the research promotes and enhances self-determination of Māori. In the framework designed for this research, Māori values and aspirations are reflected throughout. Māori leadership is also promoted by supporting Māori to seek solution of change and identify how transformative change in physiotherapy education might look in the future, and seeking guidance from Māori as to how this can be achieved in practice.

Article 3: Māori rights to equity are reflected in ōritetanga*.* This research has strong links with ōritetanga as the overarching aim is to positively impact the experiences of Māori undertaking physiotherapy education in the future. Ōritetanga can also be supported during the research process by creating a research environment that is enabling of Māori, where the mana[26] of Māori and Pākehā and Tauiwi is supported throughout.

Article 4: The fourth and final article of te Tiriti is wairuatanga and it relates to cultural and religious freedom. Honouring wairuatanga includes maintaining one's 'sense of being' which included spirituality and holistic well-being. In terms of supporting Māori involved in this

[25] The following sources provide some detailed information regarding how te Tiriti can be honoured: Barnes et al. (2017), Berghan et al. (2017), and Came et al. (2020).

[26] Mana is a complex term to define. Mana is someone or something that holds prestige, presence, authority, influence, status, and power (Jones et al, 2006; Rātima et al, 2022). Enhacing the mana of someone recognises what is right with that person and the reality of their world (Mana Taiohi, 2022).

research and upholding their wairua[27], a culturally and ethically based approach to the research process is adopted.

Positioning te Tiriti as a central component of the Māori-centred research framework, and honouring these responsibilities stipulated within te Tiriti, the potential of transformational change of physiotherapy education into a space of thriving that will support Māori advancement in the future can be enhanced.

3.7 Ethical considerations when researching with Māori

Ethical protocols adopted in research are typically based around cultural norms and processes relevant to the community where the research takes place (Cram, 2019; Dickert & Sugarman, 2005; Hudson & Ahuriri-Driscoll, 2005; Hudson & Russell, 2009; Smith, 1999). Critical to achieving research outcomes beneficial to Māori requires an in-depth understanding of the ethical approaches specific to Māori (Cram, 2019; Hudson et al., 2010). Developing an increased awareness of the ethical issues that may arise for Māori, allows for appropriate strategies to be implemented for their protection and enhance the potential for positive outcomes (Hudson et al., 2010). When research practices meet both cultural and ethical requirements, this places the needs and well-being of Māori participants at the forefront of the research.

The Māori ethical framework, Te Ara Tika, developed by the Pūtaiora Writing Group, provided the ethical basis of the cultural framework devised for the current research (Hudson et al., 2010). Te Ara Tika has a philosophical base in mātauranga (Māori knowledge); yet, both Indigenous values and Western ethical principles are incorporated within the framework, guiding researchers undertaking research involving Māori within a variety of research settings (M. Hudson, personal communication November 9, 2021).

Many established research groups in Aotearoa, including the Health Research Council of New Zealand (2019) and some New Zealand University faculties (University of Auckland, 2019; University of Otago, 2019) mandate the implementation of Te Ara Tika. Doing so highlights the value that is placed on Te Ara Tika in guiding research resulting in outcomes that benefit Māori and their communities (Health Research Council of New Zealand, 2019; Hudson et al., 2010; Smith, 1999). Most importantly, conducting research under the guide of Te Ara Tika ensures the well-being of Māori is cared for and their wisdom protected. If this is achieved, the potential of

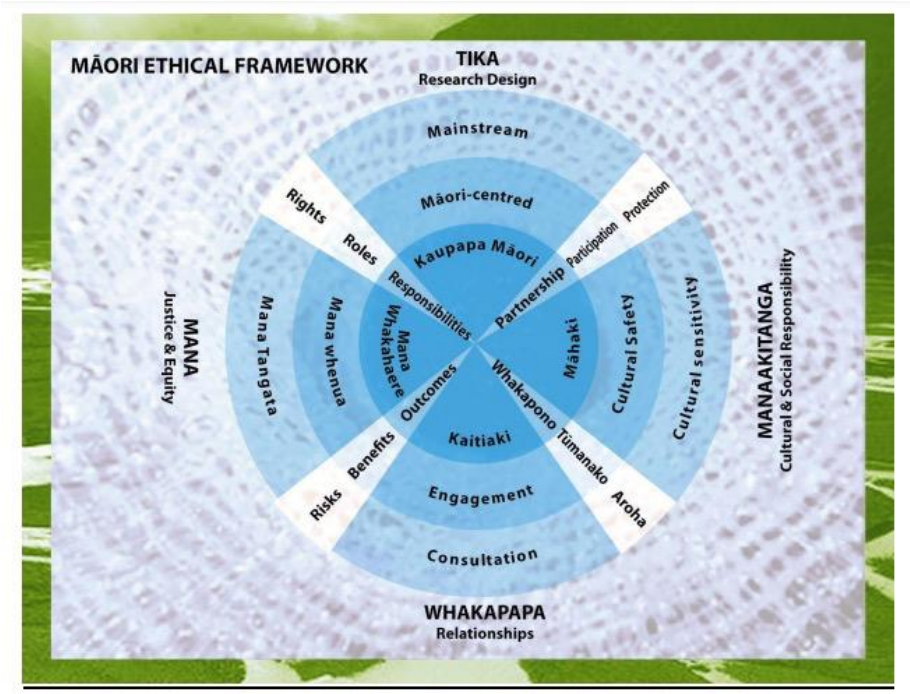
[27] For some Māori, wairua represents spirituality and/or 'a sense of connectedness that acknowledges a wider connection to the universe' (Valentine et al., 2017) Wairua can be seen, heard, or felt and has strong links with well-being (B.Wilson et al, 2021).

transformational research outcomes that benefit Māori can be strengthened (Hudson et al., 2010).

Hudson et al. (2010) described four elements within Te Ara Tika framework that guide ethically appropriate research: whakapapa (relationships), mana (justice and equity), tika (research design), and manaakitanga (cultural and social responsibility). In Figure 4, the configuration of Te Ara Tika guideline for Māori research ethics is illustrated (Hudson et al., 2010). These elements were actively engaged with during the initial design stages and conduct of the research to affirm Māori and support the emergence of their ideas and concepts.

Figure 4

Configuration of Te Ara Tika Guidelines for Māori Research Ethics



Note. This diagram has been taken from Te Ara Tika Ethical Framework document (Hudson et al., 2010). This document is free via the Health Research Council of New Zealand website https://www.hrc.govt.nz/

The four elements of Te Ara Tika framework as described by (Hudson et al., 2010, pp. 6-16) are as follows:

- The whakapapa element of the framework relates to the genesis of the research and design; yet, also addresses the issues surrounding Māori control of the research. This element includes initial and ongoing engagement with Māori, the quality of

relationships, and the processes undertaken to support relationships throughout the research process.

- The tika element addresses the research design that provides the foundation to the research. Māori research paradigms are advocated for so that research is inclusive of Māori participation. When appropriate tikanga processes are included and adhered to, it validates the research and enhances the likelihood of the proposed outcomes benefitting Māori.
- The manaakitanga element assesses cultural and social responsibility including whether the mana of the researcher and participants is upheld through the research process. In a research sense, this element acknowledges the responsibility that people have towards each other; where caring for and protecting others is an essential component of the process.
- The mana element focuses on issues of justice and equity so that research outcomes benefit Māori. It examines ownership of data, collective consent and reciprocity with Māori, and mana whenua (local people) where the research takes place.

Together, these four elements represent te Tiriti honouring research practice (Hudson et al., 2010).

Māori-centred research

Under the premise of Te Ara Tika, this current research is identified as Māori-centred. This means that most participants are Māori and that Pākehā or non-Māori are part of the research team (Hudson et al., 2010). Because Māori were involved in the research as co-inquirers, the following questions were considered in the early research design stages to consider how to meet the requirements of Te Ara Tika:

- How will Māori be involved in this research project? As researchers, participants, and advisors?
- How will this research project benefit Māori?
- Is there adequate participation of Māori in different stages of the research project, including research design, analysis and dissemination of the results?

To support the successful operation of the research, the four elements of Te Ara Tika were carefully considered to bring together the interface between Indigenous and westernised knowledges and ways of being (Came, 2013; Hudson et al., 2010). Establishing constructive research relationships ensures the roles and responsibilities of each person involved in the research are understood (Came, 2013). Te Ara Tika adds to a research environment that is culturally safe, and supports inclusivity and sharing of knowledge (Came, 2013; Hudson et al.,

2010; Hudson & Russell, 2009). Moreover, the potential for Māori to have a meaningful experience throughout the research process is enhanced (Hudson et al., 2010).

3.8 Theories of kaupapa Māori research

The philosophical base of the Māori-centred framework designed for this current research is informed by the theories of kaupapa Māori research. Kaupapa Māori research was brought to international recognition through the seminal works of Smith (1999) and Smith (1997). It is considered both a theory, and transformative means to practice research involving Māori.

Kaupapa Māori research initially evolved out of frustrations with research conducted by Pākehā. Through the implementation of westernised research processes the authenticity of Māori experiences and voice were denied, and Māori knowledges misrepresented (Bishop & Glynn, 1999; Health Research Council of New Zealand, 2019; Reid et al., 2017). Consequently, this resulted in research outcomes that were neither of benefit Māori nor relevance to Māori (Smith, 1999). Māori scholars also suggest that research led by Pākehā often results in the problematisation of Māori rather than working together with Māori towards their advancement (Smith, 1999; Wilson, 2019; Wilson et al., 2022). The undervaluing of Māori knowledge by Pākehā researchers is still of concern for Māori scholars (Bishop & Glynn, 1999; Cram, 2019; Wilson, 2019; Wilson et al., 2022).

Kaupapa Māori research searches for understanding within a Māori worldview, challenging accepted westernised norms and assumptions related to the construction of knowledge and brings to the fore Māori knowledges and wisdom (Bishop & Glynn, 1999; Eketone, 2008; Henry & Pene, 2001; Pihama et al., 2002; Smith, 1997; Smith, 1999). This notion was captured by Mahuika (2008), a Māori scholar, who referred to kaupapa Māori research as “an assertion of our cultural beliefs and practices, our ways of knowing and being and our right to both live and maintain them” (Mahuika, 2008). Smith (1999) described kaupapa Māori research as “a counter-hegemony approach to Western forms of research” because of its different epistemological and methodological foundations compared to westernised orientated research (p. 198). Smith et al. (2012) stated that as kaupapa Māori research is an approach that can “speak back” (p. 11) to dominant westernised theories; it can be utilised to bring about positive change for Māori.

Critical to the understanding of kaupapa Māori research is that it is viewed by Māori as an approach to research that is “for, by and with Māori” (Smith, 1999, p. 183). Kaupapa Māori research is closely related to being Māori as it extends the foundation of Māori philosophies and practice that are underlined by te ao Māori; hence, normalising what it means to be Māori

(Smith, 1997; Wilson et al., 2022). It is because of these foundations that the practice of kaupapa Māori research provides a means to understand and represent Māori by privileging Māori ways of thinking, being, and doing within the confines of a space that has been significantly impacted by colonisation (Cram, 2011; Curtis, 2016; Eketone, 2008; Pihama, 2012; Pihama et al., 2015; Royal, 2012; Smith, 1999). Affirming the sovereign status of Māori counters negative and deficit portrayals of Māori, supporting outcomes of change that meet the needs of Māori and their aspirations (Bishop & Glynn, 1999; Durie, 2005b; Smith, 1999).

Fundamental to the constructs of kaupapa Māori research is maintaining relationships with Māori and protecting Māori (Cram, 2017). Therefore, Māori values, customs, and protocols important to Māori are embedded deep within to achieve this outcome (Bishop & Glynn, 1999; Cram, 2011; Curtis, 2016; Durie, 1985; Eketone, 2008; Henry & Pene, 2001; Pihama et al., 2002; Smith, 1999). The values considered most pertinent to kaupapa Māori research and their definitions have been described as follows: whakawhanaungatanga (connectedness), tino rangatiratanga (self-autonomy), manaakitanga (nurturing relationship and people), kaitiakitanga (guardianship), wairuatanga (spirituality), kotahitanga (unity), and tikanga (doing what is right) (Cram et al., 2004; Henry & Pene, 2001; Hiha, 2016; Smith, 1997; Smith, 1999). Expression of these values creates an ethical base that intricately aligns with transformational research practices (Bishop & Glynn, 1999; Durie, 2005a; Smith, 1999; Wilson et al., 2022).

Transformative potential of kaupapa Māori research

Based on the distinctive worldview of Māori, kaupapa Māori research enhances the potential of transformation that benefits Māori communities. Smith (2003) wrote that transformation is transpired through kaupapa Māori research because “Kaupapa Māori is a way to reclaim the taken for granted, the validity and legitimacy of Māori, Māori language, knowledge and culture” (p. 11). This is further supported by Cram (2011) who stated that “Kaupapa Māori research incorporates a transformation agenda that is about community aspirations and the sovereignty of the people” (p. 15). Using an approach that respects and values Māori perspective and knowledges, and normalises these, legitimises the realities of Māori and results in a better understanding (Bishop & Glynn, 1999; Cram, 2011; Durie, 2005b; Smith, 1997; Smith, 1999; Walker et al., 2006).

Research to advance Māori, therefore, requires engaging in research practices that are under Māori control, responsive to Māori, and privileges Māori ways of knowing (Curtis, 2016; Health Research Council of New Zealand, 2019; Reid et al., 2017). Curtis (2016), a Māori researcher, stated that effective research involving Māori needs to reject cultural-deficit theories, be non-victim blaming, and align with a structural determinants approach so that issues of power,

privilege, and racism are well considered. Lastly, Māori scholars agree that research involving Māori should be emancipatory, accept the diverse realities of Māori, and be supportive of decolonisation; and that research aims should promote social justice (Cram, 2019; Curtis, 2016; Curtis et al., 2023; Reid et al., 2017).

The specific elements that underpin kaupapa Māori research are complex and challenging to define given the diversity of perspectives embedded within this approach (Cram, 2010; Durie, 2004); however, a kaupapa Māori research is a powerful approach to facilitating transformative change (Bishop, 1996; Cram; Durie, 2005a; Smith, 1997; Smith, 1999). As transformation within physiotherapy education was a key aim of the current research, adopting a framework that aligns with the views and perspectives of Māori may result in a more meaningful and empowering experience for Māori. Further details about the theories associated with kaupapa Māori can be obtained from the following sources: Cram (1993, 2019); Curtis (2016); Reid et al. (2017); Royal (2012); Smith (1997) and Smith (1999).

Who can engage in a kaupapa Māori research?

Kaupapa Māori research is a uniquely 'Māori' approach to research and there is debate amongst Māori researchers concerning whether non-Māori researchers should even engage in research involving Māori (Bishop & Glynn, 1999; Pihama et al., 2002; Smith, 1999). In some reports, Māori scholars fervently argue that Māori researchers should only be the ones who can engage with kaupapa Māori (Bishop & Glynn, 1999; Cram, 2011; Curtis, 2016; Haitana et al., 2020; Pihama et al., 2002; Reid et al., 2017; Smith, 1999). 'Being Māori' is considered as essential criteria to engaging in kaupapa Māori research so that the views and perspectives of Māori are appropriately represented and protected, and Māori retain ownership of their knowledge and resources (Cram, 2017; Smith, 1999). However, there are some Māori researchers who state that because partnership is a fundamental part of te Tiriti, and if te Tiriti is honoured appropriately, non-Māori can be part of the research that involves Māori (Curtis, 2016; Walker et al., 2006). Furthermore, because Māori are often the minority within research environments, they cannot make a difference for Māori on their own; hence, the involvement of non-Māori who are dedicated to social justice or an equity-based approach can still be impactful for research that advances Māori (Curtis, 2016).

There are studies conducted within a cross-cultural research space, where Māori knowledges and practices have been successfully promoted through research practices guided by the theories of kaupapa Māori research by non-Māori researchers (Came, 2013; Carpenter & McMurchy-Pilkington, 2008; Gibbs, 2001; Jones, 2012; Pere & Barnes, 2009; Wilson et al., 2022). Observations from Pākehā researchers researching within these spaces include Māori

participants are more likely to share their knowledge and aspirations with Pākehā researchers when they are supported in ways that are defined and self-determined by them (Barnes, 2000; Cram, 1993; Curtis, 2016; Durie, 1985; Pihama, 2012; Pihama et al., 2002; Smith, 1999). Jones (2012), an experienced Pākehā researcher in the area of cross-cultural educational research, wrote that when non-Māori engage appropriately in kaupapa Māori theoretical based research this helps Māori 'see themselves' as Māori, and simultaneously promotes the emergence of Māori knowledges. It therefore appears acceptable for non-Māori to engage in kaupapa Māori based research; that is, research based on the principles and theories of kaupapa Māori, provided there is appropriate support and guidance (Curtis, 2016; Hudson et al., 2010).

In collaboration with Māori, a Māori-centred methodological framework specific for this research was established that draws from the theories of kaupapa Māori research. There are three key principles that have been adopted to overarch this framework to ensure the research process remains true to the underlying philosophy of kaupapa Māori research: that the research is strength-based, collaborative (involve Māori), and based on Māori values. The combination of these principles contributes to a relational approach to research that will support transformational change within physiotherapy education and benefit Māori students in the future.

3.8.1 Participatory action research and appreciative inquiry

Participatory action research is a well-known westernised approach to research that offers a pathway to create meaningful knowledge and organisation change (Cook, 2018; Farwell, 1995; Manfra, 2019). Hence participatory action research involving an appreciative approach to the inquiry was selected as it was congruent with the overall purpose of this research.

Action research

The philosophical influences of action research begin as far back as Aristotle, where his philosophy was to support individuals and communities to cultivate virtue and excellence during the act of living (Farwell, 1995). A more contemporary vision of action research is to find practical solutions that enable whole communities to flourish (Cardno, 2003; Cram, 2010; Reason & Bradbury, 2001). Typically, action research is adopted to facilitate organisation change because it can create an openness sourced from an ethic of accountability, relationship, and collaboration (Cram, 2010).

Concerned with the pursuit of practical solutions, action research is heavily reliant on collaboration to bring about change that makes a difference (Cardno, 2003). Participation, therefore, forms a central part of the process. This is so that democratic processes develop

knowing and knowledge to bring about effective change that will make a difference within the community seeking change (Reason & Bradbury, 2001). As a change methodology, there have been conflicting opinions as to its validity (Cook, 2018; McTaggart, 1994). Yet, action research has been attributed to the application of sound, scientific, and replicable methods that can successfully facilitate organisational change (Cardno, 2003).

Participatory action research

Participatory action research is a branch of action research. Adopted within communities, participatory action research has an emphasis on participation, action, and values. Like other action research methodologies, participatory action research informs change within organisations; however, participant involvement is more explicit compared to other approaches. Research participants are typically identified as co-researchers, or co-inquirers, so contribute to decision making at each stage of the research process. With participatory research there is often a stronger emphasis on the values aspect of research; hence, co-inquirers are usually given a voice to identify and express what is important to them (Chachine, 2022; Dutta, 2008). This also means that collaborative decisions are made in terms of the methods used to collect and analyse data (Reason & Bradbury, 2001). With respect to Indigenous populations, participatory action research has been shown to create a space that centres marginalised voices (Dutta, 2008) and enhances empowerment and self-determination of co-researchers, resulting in outcomes more relevant to and relatable for the community involved (Carpenter & McMurchy-Pilkington, 2008; Dutta, 2008; Tautolo et al., 2017). Touted as a values-based approach to research that supports co-inquirers' engagement, participatory research supports positive and impactful organisational change (Cardno, 2003; Cram, 2010; Denzin et al., 2008).

3.8.2 Appreciative inquiry

Philosophy of Appreciative inquiry

Appreciative inquiry is a theoretical perspective and mode of action research originally developed by Cooperrider and Srivasta in the 1980s (Cooperrider et al., 1995). As a collaborative approach to inquiry, appreciative inquiry was initially applied within organisations as a way to find solutions to advance systems, processes, services, and practice that would result in positive organisational change (Cooperrider et al., 1995). Like other action research approaches, appreciative inquiry is a strength-based approach committed to participation, communication, and social interaction. Different to other change methodologies where the focus is often on identifying and solving problems (otherwise known as deficit approaches to inquiry) appreciative inquiry instead offers a positive, affirmative approach to transformation (Cojocaru, 2012). It is achieved by collecting and celebrating good news stories of a community

or organisation through using affirming questioning. Thus, appreciative inquiry provides a pathway to see 'the best of' or highest qualities held within a community (Cram, 2010).

Principles of appreciative inquiry

Although appreciative inquiry is widely recognised as a method that supports positive and constructive organisational change, it is also regarded as a philosophy that has its own principles and assumptions (Ludema & Fry, 2008). Five principles underpin and guide an appreciative approach to inquiry (Cram, 2010; Mace et al., 2014; Richer et al., 2010; Trajkovski et al., 2013a, 2013b). Table 1 depicts a summary of five 'foundational' principles linked to appreciative inquiry.

Table 1

Principles of Appreciative Inquiry

Principle	Meaning in relation to appreciative inquiry
The Constructionist principle	Recognises that our knowledge, language, and actions are linked; reality as we know it can be created through language and conversation. Words can, therefore, create worlds.
The Simultaneity principle	Acknowledges that inquiry creates change. Change begins from the moment a question is asked.
The Anticipatory principle	Pertains to the image we hold of the future. Hopefulness and the anticipation that it is worth engaging may bring these images into a reality or a positive result. Future images an also inspire action.
The Poetic principle	Acknowledges that co-researchers have a choice of what to study and this determines what is discovered.
The Positive principle	States that momentum is best generated through positive questioning. Having a focus on what people do well is motivating. In terms of large-scale change, this requires social bonding to increase the chance of change being more sustainable.

Note. These principles are adapted from (Cram, 2010; Mace et al., 2014) and demonstrate the amenability of adopting an appreciative inquiry approach within a cross-cultural space.

Through the embodiment of these principles, appreciative inquiry is a powerful strength-based tool to facilitate organisational change by supporting organisations to identify innovative strategies that are derived through consultation and collaboration (Cram, 2010; Trajkovski et al.,

2013a). Igniting curiosity and the spirit of life, the strengths and potentials distinctive to that organisation are illuminated, resulting in the identification of possibilities for the future (Watkins & Cooperrider, 2000).

Accentuating the positive, appreciative inquiry is referred to as a generative form of inquiry. Bushe (2007), an early adopter of appreciative inquiry, explained that generativity occurs "when people collectively discover or create new things to positively alter their collective future" (p. 1). But while appreciative inquiry is solutions focused, negative experiences are not discounted. Bushe also highlighted that negative discussions can still be generative if managed the right way. He argued that negativity can still be drawn from to facilitate an appreciative mind-set (Bushe, 2007). When deficit-based constructs are 'consciously reframed', these can lead to a better future (Ludema & Fry, 2008).

Relationships established between co-inquirers throughout the process of appreciative inquiry also promote the generative potential of appreciative inquiry. Discussions amongst co-inquirers focused on moments of excellence further strengthens relationships and engenders trust which have been shown to contribute to strength-based outcomes in a variety of settings (Bushe, 2007; Bushe & Kassam, 2005; Cram, 2010; Hennessy, 2015; Johnson, 2013; Mace et al., 2014). Like other action research approaches, effective appreciative inquiry relies on the creation of a relational base that supports co-inquirers to engage and collaborate.

Appreciative inquiry as an approach to change

To my knowledge, while appreciative inquiry has been used successfully to explore gaps in knowledge and understanding in the areas of education, health, and services that affect Māori, it has not yet been adopted to instigate change within physiotherapy education environments. As previously mentioned, opinions are conflicting as to the effectiveness of appreciative inquiry as a change methodology. Those critical of appreciative inquiry suggest that this method presents an overly simplified view of 'everything will be ok'; hence, co-inquirers may have difficulty maintaining a position of positivity throughout the course of the research. Furthermore, some researchers argue that appreciative inquiry does not promote robust evaluation; failing to examine negative issues this discourages critical analysis of an organisation (Cram, 2010; Dematteo & Reeves, 2011; Richer et al., 2010; Trajkovski et al., 2013a). In contrast, appreciative inquiry has been shown to be implemented successfully within a number of health and educational research settings where positive transformative change has transpired (Carter, 2006; Carter, 2010; Cram, 2010; Egan, 2018; Trajkovski et al., 2013a; Watkins et al., 2016). Finally, within a number of Māori communities and organisations, appreciative inquiry has been shown to be effective in terms of generating innovative solutions beneficial for Māori, by Māori

(Bowen & Hinze, 2020; Cram, 2010; Jenkin, 2020; Te Maro et al., 2019; Tomoana & Zealand, 2012; Williams, 2020). Moreover, parallels between the theories of kaupapa Māori research and appreciative inquiry, support the inclusion of appreciative inquiry in the methodological approach to support transformative change within physiotherapy education. Next, I explain 'how' appreciative inquiry is conducted in a practical sense.

3.8.3 Application of an appreciative inquiry

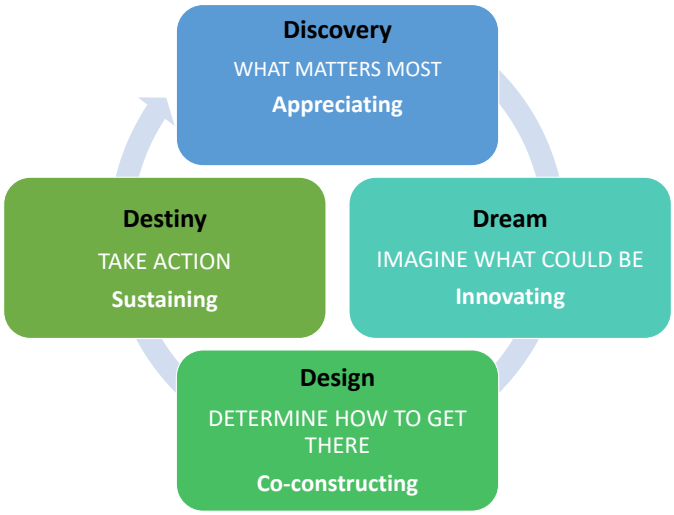
To enable transformative change, appreciative inquiry is facilitated through an intervention that integrates both inquiry and action (Patton, 2002). While there is no prescribed format for completing an appreciative inquiry, foundational to this approach is the identification of an affirmative topic or question that becomes the focus of the inquiry and sets in motion the process of change. Those involved in the inquiry select the topic which secures an organisation's commitment to the process and facilitates engagement (Cram, 2010).

The questions asked during an appreciative inquiry are of great importance. Regarded as seeds of change, the initial questions stimulate the desire for change and so are foundational to the success of the whole process (Cardno, 2003; Cooperrider et al., 2008; Reason & Bradbury, 2001; Trajkovski et al., 2013a). Further, the type of language used can be very powerful in terms of igniting change (Cooperrider, 2012). In the current research, the questions asked needed to be carefully crafted so that they would unlock the future possibilities and potential of physiotherapy education from a Māori worldview.

A well-known model of an appreciative inquiry is the four-stage approach described by Cooperrider et al. (2008) which sets out four key phases to the appreciative inquiry to facilitate the change process: Discovery, Dream, Design, and Destiny. Together, these phases are referred to as the 4-D approach. The Discovery phase explores 'the best of what is' within an organisation, the Dream phase relates to envisioning 'what could be', the Design phase co-constructs 'how to get there', and the Destiny phase represents the 'action to make change' (Ludema & Fry, 2008; Trajkovski et al., 2013a). This 4-D approach to appreciative inquiry is represented in Figure 5 which depicts the cyclical nature of the inquiry.

Figure 5

The 4-D Approach to Appreciative Inquiry



Note. The descriptions of each stage of this 4-stage approach to appreciative inquiry have been adapted from Cooperrider et al. (2008).

Although this process appears cyclical, movement can occur back and forth between the different phases during the inquiry (Trajkovski et al., 2013a). This flexibility allows for process to adapt and respond to what is shared, while still meeting the required outcomes of the full inquiry.

3.8.4 Cultural adaption to appreciative inquiry

Appreciative inquiry provides a strength-based platform to understand the experiences of Māori and to gain the knowledge required to support change within physiotherapy education that will support Māori in the future. To enhance its effectiveness within the cross-cultural space, some cultural adaptations were made to the traditional 4-D cycle. A supplementary phase named 'whakawhanaungatanga' was added to reinforce the importance of and to prioritise relationships established between co-inquirers (Māori, Pākehā, and Tauiwi). This meant that the four-phase process became a five-phase approach to the inquiry now identified as 'whakawhanaungatanga and the 4-D cycle' (refer to Fig. 6). The 'Positive core' position central to these phases represents the possibilities of a different future. To follow each phase is described. From here on in, each phase of the appreciative inquiry will be italicised for clarity.

Figure 6

Culturally Adapted Approach to the 4-D Cycle of Appreciative Inquiry

Note. The inclusion of the *Whakawhanaungatanga* phase reinforces the importance of relationality that underpins the philosophy of this research.

Whakawhanaungatanga

Adding the stage of *Whakawhanaungatanga* is a unique aspect to the appreciative inquiry cycle and demonstrates a culturally responsive approach to the research. In the current research, the first stage of the inquiry began with a formalised and culturally based process of establishing relationships, as this is regarded as tikanga in te ao Māori (Haitana et al., 2020; Smith, 1999). Embedding tikanga successfully in the research process guides and protects Māori throughout (Barnes, 2013; Carpenter & McMurchy-Pilkington, 2008; Cram, 2010; Gibbs, 2001; Jones et al., 2006).

The rationale for allowing the space for *Whakawhanaungatanga,* a distinct tikanga-based process, is to signal to Māori that relationality is valued and respected (Royal, 2012). Incorporating processes to strengthen relationships between Pākehā and Māori has been shown to create a safe space to engage and establish trust (Carpenter & McMurchy-Pilkington, 2008; Cram, 2010; Gibbs, 2001; Jones et al., 2006; B. J. Wilson et al., 2021) which supports Māori to share their realities, providing a deeper insight into their thoughts and perceptions (Bishop, 1996; Curtis, 2016; Hudson et al., 2010; Ruakere, 2016; Wilson, 2019). This is critical to

understanding the experiences of Māori and meeting the outcomes of the research successfully.

Prioritising *Whakawhanaungatanga* as the first phase of the inquiry process enables both the time and opportunity for all co-inquirers who are part of this research to connect and establish (or re-establish) relationships with each other. Once relationships are established, the next stage of the appreciative inquiry can begin.

Discovery

The *Discovery* phase is a phase of celebration. Within this phase, co-inquirers are encouraged to appreciate 'what matters most' and identify exceptional moments that occurred during their experience within an organisation. This outcome is achieved through asking questions that pertain to experiences that were valued and finding out why (Whitney & Trosten-Bloom, 2010). While there is a positive focus, negative discussions are not discounted (Bushe, 2007; Grant & Humphries, 2006; Hennessy, 2015; Johnson, 2013). In search of the positive, negative stories can be overturned by asking questions such as 'what is missing?', 'what do you want more of?', or 'what should the image of the organisation look like? (Bushe, 2007). The sharing of positive life affirming experiences through the process of discovery creates an avenue to understand what the core values are already comprised within the organisation (Cooperrider et al., 2008).

Discovery can be explored through one-to-one interviews or large group discussions. Appreciative inquiry interviews offer a space for stories to go to a deeper level, which can add further to the level of understanding. Interviews are also more conducive for people who are the minority and need to be heard (Whitney & Trosten-Bloom, 2010). Conversely, in large group discussions co-inquirers may feel more supported to share their stories with others who have shared similar experiences (Cram, 2010).

Dream

In the *Dreaming* phase co-inquirers are asked to consider 'what could be', and to achieve this by engaging in blue sky thinking to envision the organisation in the future where aspirations are realised (Whitney & Trosten-Bloom, 2010). Inviting co-inquirers to take their imaginations beyond the horizon where there are no limits, judgements, or consequences, ensures a preferred future can be conceptualised (Ludema & Fry, 2008; McNae, 2018; Trajkovski et al., 2013b). Removing all barriers or boundaries ensures the visions of the future can be freely self-determined.

Design

The *Design* phase seeks to create the architecture required to materialise or bring to life the ideal organisation. This phase seeks to determine 'how to get there' by establishing the pathway that leads towards the future. It requires co-inquirers to engage in a process of co-construction, reflection, creativity, and cooperation to harness their different perspectives and transform these into tangible goals. As a result, priority statements are generated that reflect the intended strategies for change; that is, the plan for change so the future can be realised (McNae, 2018; Trajkovski et al., 2013b).

Destiny

The *Destiny* phase is the last phase of the appreciative inquiry and its focus is to provide the 'action to make change'. This is the stage where it is decided what action needs to be taken to meet the aspirations shared in the phase earlier (Cram, 2010). Co-inquirers decide how the designs from the earlier phase can be transferred into practice and put a plan in place (Trajkovski et al., 2013b; Whitney & Trosten-Bloom, 2010). Effective and sustained transformative change requires collaborating with those who are responsible for change, so the change that transpires reflects these new visions of the future (Cooperrider et al., 1995; Cram, 2010; Stavros & Torres, 2005). When Māori are invited as co-inquirers to be part of the change process, this has been shown to be empowering for Māori (McNae, 2018).

Positive core

Central to the 4-D approach to an appreciative inquiry is the *Positive Core*. The *Positive Core* is recognised an integral part of an appreciative inquiry (Bushe & Avital, 2009; Cooperrider, 2012; Cooperrider et al., 1995). The core has a dual purpose. It constitutes the collective essence of what is shared by co-inquirers; thereby representing the value of the organisation that already exists. Cooperrider and McQuaid (2012) defined the role of the *Positive Core* as bringing to life positive possibilities for the future (Bushe & Avital, 2009; Cojocaru, 2012; Cooperrider, 2012; Cooperrider et al., 1995; Patton, 2002; Whitney & Trosten-Bloom, 2010). As the foundation through which change can stem from, the core becomes interwoven into the organisation's fabric providing strength for the new direction of change. Integral to effective and sustained transformative change, the identification of the positive core formed a crucial stage in this research. The adapted five-phase process of appreciative inquiry including the *Positive Core* is depicted in Figure 6, p. 67.

3.9 A values and principles-based approach to research

The final thread of the Māori-centred methodological approach are the principles represented by values and concepts important to Māori. Aligning with theories of kaupapa Māori based approach to research, the values that together represent the ethic of care adopted in the current research include:

- Whanaungatanga (relationships, kinship and connection)
- Manaakitanga (responsibility of care, support)
- Pono (integrity), tika (doing things the right way), aroha (compassion, love)[28]
- Tuakana/teina (teacher/student; older student/younger)

Whanaungatanga

Whanaungatanga in the context of this research is the principle of recognising, respecting and maintaining connections between those involved in the research. In the context of this research, whanaungatanga creates the bonds of the framework that are integral to everyone working effectively together, enhancing the potential of a successful research process. A key aspect of whanaungatanga will be connecting kanohi ki te kanohi (face to face) and showing respect. Whakawhanaungatanga (the process of establishing relationships) will be adopted to engage with those new to the research space.

Manaakitanga

Taking care of others is of prime importance to Māori (Mead, 2003). In te ao Māori, mana is a concept that attends to a person's prestige, influence, and spiritual authority (Moorfield, 2011). Manaakitanga is the principle of nurturing connections and relationships with others (Hiha, 2016). It affirms that the mana of others is upheld (Hoskins & Jones, 2022; Mead, 2016). Intrinsic to supporting someone's mana is showing humility, empowering others, and valuing what someone brings to a space (B.J. Wilson, personal communication, November, 2021).

Manaakitanga is typically described in English texts as 'being a good host', but in te ao Māori manaakitanga runs deeper. The meaning of manaakitanga lies in its root words: 'manaaki' – to ensure all people's needs are met and acknowledged; 'aki' – meaning to uphold and uplift; and 'tanga' – the action of lifting. M. Rogers (2021), a Māori health expert, stated that, together, manaakitanga directs greater attention to the actual responsibility of care as opposed to just being a good host (personal communication, November 9). Expressing manaakitanga is role modelling mana enhancing behaviour toward each other and not trampling on someone else's

[28] Pono, tika, and aroha are combined as you cannot have one without the other (T. Ruakere, personal communication, November 17, 2019).

mana (Buissink et al., 2017). In the context of this research, key to manaakitanga will be to look after and caring for others, and show respect to safeguard the well-being of others. As Pākehā, this means learning to listen. Manaakitanga is a fundamental principle of this research.

Pono, tika, and aroha

The values of pono, tika, and aroha are also incorporated within the methodological framework. These three values[29] were gifted to AUT by Sir Paul Reeves[30], the former Chancellor of AUT (2005-2011), to guide us to reflect on the way we behave within this educational environment. As this research takes place within my place of employment, acknowledging these values is important. This can be achieved by being truthful and sincere and acting with integrity (pono); seeking advice and acting accordingly, or behaving in an appropriate way (tika) (this manifests pono); and engaging with others with respect, care, compassion, and passion (aroha) to ensure mana is either restored, intact, or enhanced (Stewart et al., 2021). Together with whanaungatanga and manaakitanga, the values of pono, tika, and aroha further support the development of mutually respectful research relationships and conducting research alongside Māori in mana enhancing ways.

Tuakana/teina

Lastly, the principle of tuakana/teina (teacher/student) incorporated into the framework was respected during this research. In the current research, this principle refers to the research relationship between Māori and myself, and acknowledges that I am not the expert in this research space. Taking up the role of teina will be reflected by being open to the knowledges and wisdom offered by Māori. Engaging in this way is a show of respect, and will help to establish a more balanced relationship with Māori, further supporting self-determination.

In summary, these principles, which are congruent with Māori worldviews, will bond the dimensions of te whāriki, the Māori-centred framework and guide me in this cross-cultural space, as I seek to maintain the mana of those involved in this research. Honouring these principles will be pivotal to meeting the aims of the research.

[29] At the time of writing this thesis there was some debate between Māori and non-Māori employed within the university as to whether the values of pono, tika, and aroha "were being used in ways consistent with their Māori meanings" (Stewart et al., 2021, p. 2). These values have been adopted both caution and the utmost respect.
[30] Sir Paul Reeves was the first Māori Governor general of Aotearoa (1985-1990).

3.10 Appreciative inquiry and kaupapa Māori research: Amplifying the voice of Māori

This research sought to understand the experiences of Māori who studied physiotherapy within AUT, with the aim to transform the current physiotherapy programme into a space of thriving, and more inclusive of Māori. In collaboration with Māori, a Māori-centred methodological approach was created to form te whāriki, a framework representative of the combined Māori and westernised philosophies of appreciative active inquiry, theories of kaupapa Māori research, Te Ara Tika, all drawn together by te Tiriti to achieve the research objectives. By interweaving all these threads within a Māori-centred framework, a relational base was created that meant the experiences of Māori physiotherapy graduates could be explored both ethically and culturally appropriate within a te Tiriti honouring shared space.

3.10.1 Interweaving appreciative inquiry and kaupapa Māori theoretical approaches to research

Participatory action research conducted through the lens of appreciative inquiry is a strength-based methodological approach to facilitate change within an organisation. This definition implies that this approach is suitable to meet the aims of the research. However, as the nature of the inquiry is to explore the experiences of Māori within the physiotherapy programme, further consideration was required in terms of how this approach could be adapted to conduct research involving Māori that was both ethically and culturally appropriate. Due to their similar philosophical foundations, the theories specific to kaupapa Māori research and appreciative inquiry are interwoven. The resultant framework enables the views of Māori to be explored within a cross-cultural research environment that is aspiring to be culturally safe, where Māori co-inquirers can be supported appropriately for the duration of the research and beyond. The following explores this potential of interweaving methodological approaches that are represented by different worldviews.

Strength-based approach

The strength-based philosophy of appreciative inquiry makes this approach amenable to conducting research with Māori and achieving outcomes that will benefit Māori (Cram, 2010; Jones et al., 2006). Firstly, appreciative inquiry relies on a relational constructive process to instigating organisational change. This ties strongly with the relational and collective worldview of Māori. Furthermore, a research space that is enabling of Māori self-determining how the research might best serve their own aspirations will subsequently result in the discovery of meaningful recommendations of change based on their own experiences as Māori (Bishop &

Glynn, 1999; Carpenter & McMurchy-Pilkington, 2008; Cram, 2010; Gibbs, 2001; Reid et al., 2017). Privileging the voices of Māori will strengthen the likelihood of outcomes that advance Māori.

Embedded within the philosophical underpinnings of action research methodologies are the principles of justice, equity, and self-determination. These principles also align with those of kaupapa Māori based research which places Māori at the centre (Cram, 2011). The collaborative nature promoted by an appreciative inquiry approach will enable Māori in their role as co-inquirers to lead discussions and self-determine directions of change that will make a difference for Māori (Cram, 2010). This replicates one of the key features of kaupapa Māori based research (Hudson et al., 2010; Reid et al., 2017).

Collaborative approach

The collaborative aspect of appreciative inquiry is a feature that aligns strongly with a kaupapa Māori approach to research. Westernised research has traditionally disadvantaged and/or distanced Māori from participating in research where they can be themselves and share what is important to them. This experience of exclusion or not feeling valued throughout the process of research has been expressed by marginalised groups worldwide (Chilisa, 2012; Dutta, 2008; Smith, 1999).

Creating an environment that promotes collaboration is fundamental to the success of appreciative inquiry. Blending these two approaches has the potential to create a culturally safe space where everyone feels included and is confident to contribute without the fear of repercussions. Integral to this process, is the establishment of relationships. As it is a collaborative approach, appreciative inquiry lends itself well to the incorporation of cultural processes of engagement so Māori can connect with each other, build trust, and feel supported to share their stories within the research environment.

Another positive aspect of appreciative inquiry that supports effective collaboration is that there is minimal hierarchy between those involved. This is evidenced by the naming of research participants as co-inquirers alongside the primary researcher who also assumes a co-inquirer role, rather than a leader. This balance of power adds to a culturally safe space for Māori (Bishop & Glynn, 1999; Carpenter & McMurchy-Pilkington, 2008; Cram, 2010; Gibbs, 2001; Reid et al., 2017). Many Māori scholars support identifying issues of power and authority, and acknowledging these so there is equitable benefit and sharing of tangible research outcomes (Bishop & Glynn, 1999; Curtis, 2016; Reid et al., 2017; Smith, 1999).

Lastly, the worldviews of Māori may be reinforced by the philosophies underpinning appreciative inquiry. With te ao Māori largely focused on the importance of relationships, communities, and intergenerational responsibilities, these aspirations can be realised through the process of appreciative inquiry where the primary aim is to generate organisational or community-based change through collaboration that will impact the wider collective. With an emphasis on supporting the contribution of Māori, and placing value on Māori knowledges and experiences, outcomes are more likely to result in sustained transformational change resulting in beneficial outcomes for Māori communities (Bishop & Glynn, 1999; Carpenter & McMurchy-Pilkington, 2008; Cram, 2010; Cram et al., 2018; Durie, 2004; Gibbs, 2001; Jones, 2012; Macfarlane et al., 2015; Pere & Barnes, 2009; Reid et al., 2017; Smith, 1999). It is also argued that by creating opportunities for Māori to come together, share their perspectives, and contribute to decision making, outcomes can positively impact all people, not just Māori (Durie, 2021).

Promoting Māori advancement

Interweaving an appreciative inquiry approach with theories of kaupapa Māori research can also promote the advancement of Māori. Appreciative inquiry creates a positive environment for all co-inquirers to reveal their aspirations, followed by identifying the steps to turn these into a reality. A criticism often associated with this, however, is that due to the positive lens of appreciative inquiry, problems experienced by the community can either ignored or not considered relevant. This concern was relevant to the current research, as Māori were going to be asked to 'appreciate' a programme dominated by westernised perspectives. However, appreciative inquiry does not discount the negative experiences. Within this cross-cultural space, it will be important to support the emergence of negative stories, so that, as Pākehā, I am not seen to be naïve to the realities of Māori.

Though negative stories can be used to support transformative change, the importance of developing relationships and instigating processes to achieve change becomes even more critical. In this study, the strong focus placed on developing relationships further supported the sharing of negative stories in the current research. This was to create a culturally safe space that not only invited Māori co-inquirers to share their aspirations but where their negative stories could also be shared, listened to, and heard. Being welcoming of negative stories will also help to avoid downplaying the difficulties that are faced by Māori. Experts in appreciative inquiry have argued that developing an all-encompassing understanding of what is important to co-inquirers further supports the generative capabilities of appreciative inquiry (Bushe, 2007). In terms of the impact of Māori, the transformational change that transpires may be more meaningful and impactful for Māori physiotherapy students in the future. Furthermore,

physiotherapy educators who become more understanding of the challenges experienced by Māori are likely to become more responsive to adapting their teaching practices in a way that support Māori achieve their aspirations in the long term.

With relationality valued highly by Māori, adopting a research process that champions the development and maintenance of relationships positively impacts the depth of discussions offered, further promoting the transformative potential of appreciative inquiry. In this research, the importance of relationality was consciously emphasised with the addition of the *whakawhanaungatanga* phase to the traditional 4-D appreciative inquiry cycle. Prioritising the development of relationships provided a more intentional Māori-centric approach to the westernised process of appreciative inquiry, placing Māori views and perspectives at the centre of this process. In addition, the cultural adaptation of appreciative inquiry, where a stronger focus was placed on relationship building, gives effect to te Tiriti. This was further enhanced within the successive phases of appreciative inquiry by promoting a research environment whereby the voices of Māori are privileged. Lastly, self-determination of Māori is supported by offering an opportunity for solutions-based decision making that will support Māori physiotherapy students in the future to achieve their aspirations.

3.10.2 Summary

The key aim of this research is to facilitate transformative change within the physiotherapy programme to create a more inclusive environment for Māori in the future. It required a methodological approach congruent with the worldviews of Māori, to enable Māori to self-determine their own tino-rangatiratanga (sovereignty), while maintaining their autonomy and independence (Durie, 1994, 2005a; Pihama et al., 2002). To meet these requirements, in collaboration with Māori, a relational-based Māori-centred methodological framework that centres Indigenous knowledges and values was designed. Further strengthening its cultural and ethical base are the principles of Te Ara Tika ethical guidelines and te Tiriti. The interweaving of western and Māori perspectives will ensure the research process is both equitable and responsive to Māori within a cross-cultural research space, supporting research outcomes that will advance Māori.

Chapter 4 Methods

> Mā te kimi ka kite, Mā te kite ka mōhio, Mā te mōhio ka mārama
>
> Seek and discover, discover and know, know and become enlightened. (author unknown)

4.1 Introduction

In collaboration with Māori, a Māori-centred framework was developed to explore the experiences of Māori through their physiotherapy journey in a culturally and ethically appropriate way. To achieve the intended outcomes of transformative change, a culturally adapted approach guided by this framework was applied to each phase of the appreciative inquiry which was implemented in three stages across the research process with two groups of co-inquirers': recent Māori physiotherapy graduates and current physiotherapy educators of the AUT physiotherapy programme.

In this chapter, I first describe an overview of the methods, followed by the initial steps I took to prepare myself to engage in this inquiry. Next the two groups of co-inquirers are introduced. This is followed by describing each of the three stages of the research undertaken during the research process, and the phases of appreciative inquiry facilitated within each stage. In doing so, I detail how the following methods were integrated with cultural practices and values so that the ethical and cultural quality of the research process was honoured and maintained throughout. To conclude, the approaches to data analysis are outlined.

4.2 Methods overview

The culturally adapted approach to appreciative inquiry was facilitated across three stages throughout the research process. The first two stages involved working alongside Māori physiotherapy graduates of the AUT physiotherapy programme. Face-to-face interviews hereafter identified as kōrero (conversation), and focus groups hereafter known as hui (gathering or meeting) were implemented to gather data relevant to each phase. The third and final stage was split into two parts. The first part involved a face-to-face hui with Pākehā and Tauiwi physiotherapy educators. Part two will be completed following the submission of this thesis.

Due to data gathered from different phases of the appreciative inquiry in different research stages, data analysis was a complex process. To be consistent with an appreciative inquiry approach, co-inquirers were part of the analysis process. The process of thematic analysis was

applied to the data gathered from the *Discovery* phase and occurred after the data collection period. Data from the *Dream* and Design phases were analysed while still in the data collection phase using a shared analysis approach, as this was necessary to shift from one phase of the inquiry to the next and maintain the momentum of the inquiry. In terms of the third and final stage of the appreciative inquiry, the *Destiny* phase, the key aim of was to share research findings and begin the initial stages of transformation within physiotherapy education in partnership with Māori. Thus, there was no intention to undertake any analysis of data, other than report on the outcomes of the process.

4.3 Preamble to undertaking Māori-centred research

As this research was conducted within a Māori-centred framework, creating an open and inclusive research space where different worldviews could come together and be respected was important (Durie, 2004; Jones et al., 2006; Mikahere-Hall, 2017). Critical to this process was the creation of an environment where Māori co-inquirers felt culturally safe to engage and participate.

So due process could be followed, first it was important for me to understand how to work in a way that was congruent with Māori ways of being and thinking. In the following section I describe the steps that were undertaken prior to starting the data collection process which includes establishing support mechanisms particularly for Māori co-inquirers and myself, defining the topic under investigation, identifying the appropriate methods to collect the data, and adapting to the COVID-19 pandemic that was recognised by the World Health Organization (2022) as a public health emergency of international concern.

4.3.1 Developing cultural capacity

Advice was sought from Māori regarding how to create a culturally safe research environment space to enhance the validity and legitimacy of Māori knowledges (see Appendix C identifies for a list of experts I engaged with during the developmental stages of the research). This advice was gathered from a Māori advisory group, and engagement with a number of additional people including Māori internal and external to the university with expertise in a variety of educational, research, and health environments; and Māori within the broader physiotherapy professional network. Further, I attended a variety of kanohi ki te kanohi (face-to-face) and online workshops, courses, conference presentations, webinars, and seminars on a number of topics relating to this research and specifically relating to Māori health and education, researching with Māori, and understanding my role in honouring te Tiriti (refer to Appendix D for evidence of professional development). My existing membership of the physiotherapy

cultural team, and relationships with Māori students, also contributed to my development. All these initiatives broadened the lens with which I viewed things from and strengthened my capabilities of undertaking research within this shared cultural space. While this initial period of development and engagement took approximately 12 months, it was an integral part of the process so that, as Pākehā, I could engage appropriately within the Māori-centred research framework, and successfully meet the objectives of transformative research outcomes.

4.3.2 Establishing a research whānau

Gaining unique insight into Māori perspectives in relation to their experience of physiotherapy education required the establishment of a Māori research advisory group, known as the research whānau. Cultural, political, and strategic guidance was provided throughout the research process so that it was designed and conducted in a way that was acceptable for Māori (Came, 2013). The research whānau became the core decision makers, and their advice was integral to ensuring the research was conducted appropriately within the Māori-centred framework. Established at the beginning of this journey, the research whānau consisted of stakeholders who were either directly involved within the physiotherapy programme, or the broader tertiary organisation, and myself. Importantly, I had existing relationships with members of the research whānau; they were people I trusted and respected, and I valued their advice implicitly. The research whānau included Bobbie Jo Wilson (Māori physiotherapy academic at the time of this research), Tammi Wilson Uluinayau (Māori Kaiarataki[31], Equity Academic), and Dr. Belinda Ihaka (Māori podiatry academic within the School of Clinical Sciences). The contributions of the research whānau were paramount to ensuring the safety of the Māori co-inquirers, as well as my own. The three main roles of the research whānau were as follows:

1. To discuss the potential of the research topic and research process, and the implications for Māori.
2. To provide cultural guidance and support to Māori co-inquirers during data collection.
3. To provide support and advice during data analysis and dissemination of research findings.

These roles are explained in more detail in Appendix E.

[31] The role of Māori kaiarataki and equity academics at AUT are to promote Māori student success, experience, and engagement; and to promote te ao Māori.

Working in partnership alongside the research whānau, and drawing on my new learnings in this space, the Māori-centred methodological framework was devised. Support was offered by the research whānau with respect to facilitating an appreciative inquiry in a way that would establish a culturally safe research environment for everyone. Throughout the implementation of the research process, guidance and support was also offered by the research whānau to Māori co-inquirers, physiotherapy educators, and me.

4.3.3 Creating an enriching data collection process

Under guidance from the research whānau, cultural processes and values informed by tikanga and mātauranga became a significant part of the research process (Cram, 2019; Hudson et al., 2010; Ramsden, 1993; Smith, 1999; Wilson et al., 2018). Establishing a platform whereby mātauranga and tikanga could be upheld alongside westernised knowledges was to promote successful collaboration with Māori and enable the emergence of Māori views and perspectives. An example was the culturally adapted approach to the appreciative inquiry. While collaboration with the research whānau strengthened the quality and richness of the data gathered, conducting research in this way also had implications for the management and interpretation of data, including how the research findings would be disseminated (Cram, 1993, 2010, 2019; Mahuika, 2008).

4.3.4 Defining the appreciative inquiry topic

Integral to conducting an appreciative inquiry approach is defining the topic to be explored in collaboration with those likely to be impacted by the outcome of the inquiry (Cooperrider et al., 2008). As this was a doctoral research project, the topic was largely led by me in the initial stages. However, the topic was further refined in collaboration with the research whānau and Māori research experts to ensure the subsequent investigation would contribute to the advancement of Māori undertaking physiotherapy education in the future. It was at this point the following research question for investigation was agreed to: how can the AUT physiotherapy programme improve to enhance Māori experiences of physiotherapy education?

Once the topic was confirmed, the research whānau were asked to consider the framing of questions asked during the *Discovery* phase of the inquiry. The decision was made to include semi-structured opened ended questions, typical of appreciative inquiry (Bushe, 2001; Cram, 2010; Ludema & Fry, 2008), to support Māori co-inquirers to share their worldview more 'openly and freely' and use the language they chose to express themselves without my own views shaping their contribution.

4.3.5 Modes of data collection and tikanga processes of engagement

To solicit views of Māori co-inquirers', one to one kōrero and hui were employed. While these two methods are based on westernised processes of interviews and focus groups respectively, the integration of tikanga to culturally adapt these processes supported the creation of a culturally safe research environment (Smith, 1999). To provide additional safeguards for Māori and myself during the research process, key principles that relate specifically to enhanced engagement with Māori described by Smith (1999) and later supported by Cram (2019), provided the criterion for conducting this research so that it was both culturally and ethically appropriate. These principles are referred to in table 2.

Table 2

Principles and Research Guidelines for Conducting Māori Centred Research

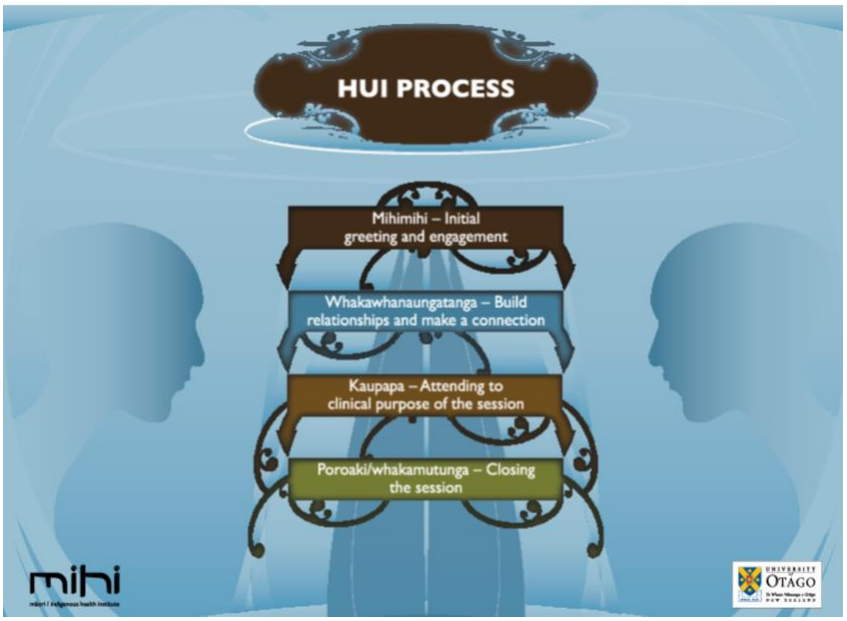
Guiding principles or values (Smith, 1999)	Researcher guidelines – how principles can be honoured (Cram, 2019)
Aroha ki te tangata – a respect for people	Show respect to others. Allow people to define their own space and to meet on their own terms. Be aware of cultural preferences and prioritising establishing relationships.
Kanohi kitea – the seen face, presenting yourself to people face to face	Meeting people face to face is of importance. Undertaking a process of making connections and building relationships involves investing time in the community prior to the commencement of the research.
Titiro, whakarongo...korero-Look, listen...then speak	It is important to look and listen to develop an understanding, and then find a place from which to speak from. Being aware of relational dynamics and being open to direction from the community is also important.
Manaaki ki te tangata – share and host people, be generous	Be generous with time, kindness, caring, and kai (food).
Kia tūpato – Be cautious	Being politically astute, culturally safe, and reflective about the insider/outsider status.
Kaua e takahia te mana ō te tangata – Do not trample over the mana or dignity of people	It is important to sound out ideas with people, disseminating research findings, and promote community feedback in a way that keeps people informed about the research process and the findings.
Kaua e mahaki – Be humble. Don't flaunt your knowledge, instead find ways to share knowledge	It is important to share knowledge and using this to benefit the community.

Note: Table adapted from kaupapa Māori research experts Professor Linda Tuhiwai Smith (1999) and Dr Fiona Cram (2019).

The hui process of engagement described by Pitama et al. (2017) and Lacey et al. (2011) (see Fig. 7) was engaged with to guide the different modes of data gathering. The hui process of engagement (hereafter known as the hui process) was initially developed to provide a model of patient engagement. It is a holistic approach to interacting with others based on the concept of a hui ritual which is deeply embedded with mātauranga and tikanga practices (Lacey et al., 2011; Pitama et al., 2017). In the current research the hui process was adopted to facilitate relationally based research practice.

Figure 7

Hui Process of Engagement



Note. This diagram has been taken from Lacey et al. (2011). This journal can be freely accessed from https://journal.nzma.org.nz/journal-articles/the-hui-process-a-framework-to-enhance-the-doctor-patient-relationship-with-maori

Honouring tikanga based processes during the research signalled to Māori co-inquirers that I placed importance on Māori practices and values, and that strengthening our relationships and the integrity of this research was a valued aspect of the process. However, as Māori do not all share the same worldview, it was important not to make assumptions as to how Māori wanted to participate 'as Māori'; hence, Māori co-inquirers were given the opportunity to express how they wished to proceed in terms of tikanga (Cram, 2019; Hudson, 2004; Smith, 1999; Wilson, 2019).

4.3.6 Adapting to COVID-19 restrictions

This research was undertaken during the period of the COVID-19 pandemic. The country was placed into compulsory lockdown after the first and before the second stage of the research.

Once in lockdown, no one in the country was able to leave their homes except for essential services; hence, face-to-face research was not allowed (New Zealand Government, 2020). Consequently, COVID-19 provided a significant barrier in terms of how I had intended to conduct the research. Meeting kanohi ki te kanohi was a keystone of the Māori-centred framework to support the establishment of relationally based research practice; thus, not being able to meet in this way was an issue.

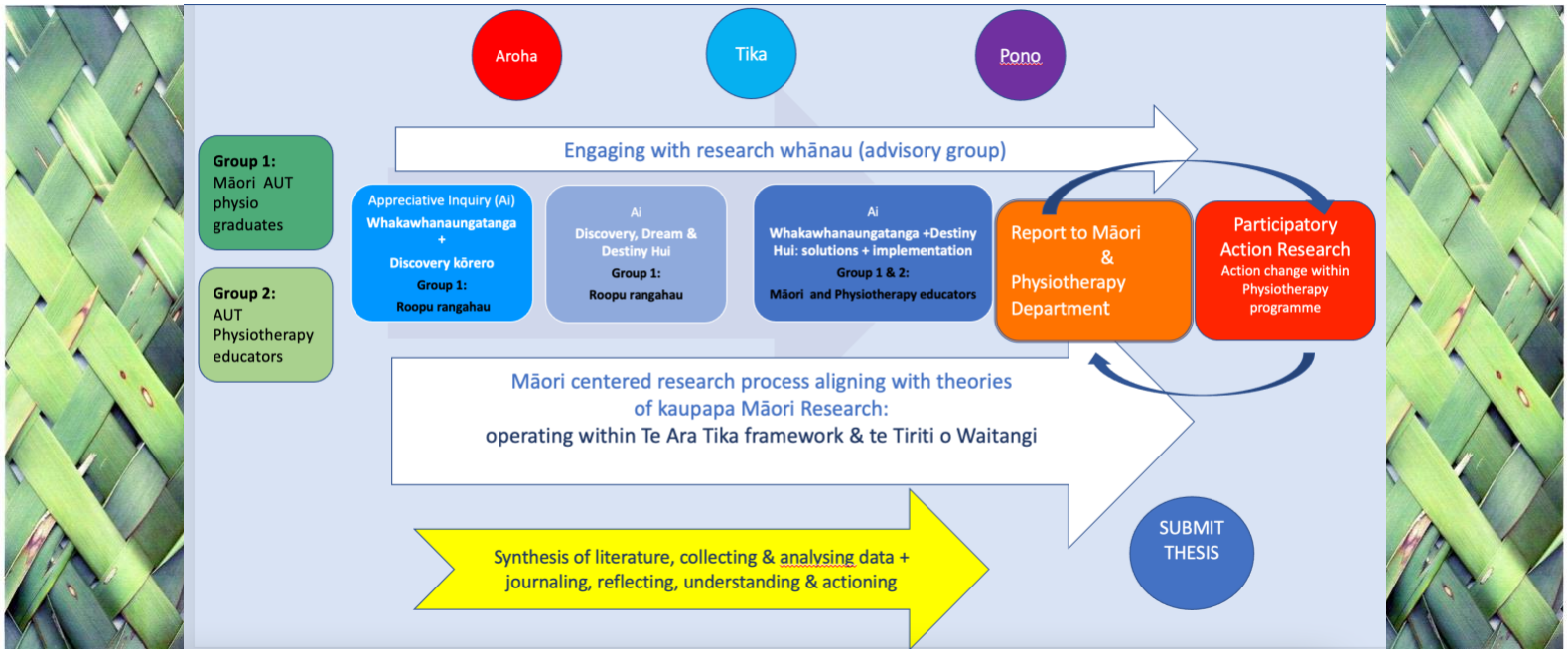
To come up with a solution, Māori co-inquirers and the research whānau were approached to garner their thoughts as to how best to move forward and maintain the momentum that had already been established. The advice given was to continue with the data collection using an online format. It was agreed that a meaningful research process could still be achieved due to the strength of existing relationships between Māori co-inquirers and myself. An online hui instead of kanohi ki te kanohi was conducted during stage two to accommodate for the COVID-19 restrictions placed on the research.

4.4 Location of the data collection

This research was undertaken within the AUT physiotherapy programme, my place of employment. Figure 8 provides the road map as to how the research unfolded. The co-inquirers (Māori physiotherapy graduates and physiotherapy educators) are identified on the left, followed by an outline of the culturally adapted approach to appreciative inquiry towards the right, finishing with the proposed end goal of transformative change within the physiotherapy programme. Other influencing factors identified in Figure 8 considered integral to meeting the outcomes of the research were referred to in Chapter 3. The research whānau and I, as lead researcher, were involved across the entire research process.

Figure 8

Outline of the Research Framework Devised to Gather and Synthesise Data to Achieve Transformative Change in Physiotherapy Education



Note: The woven flax or harakeke represents the interweaving of Māori and westernised research principles that guided the research process to successfully meet the research aim.

4.5 Stages of the research

The data collection processes reported on in this thesis were conducted over a 30-month period from December 2020 to May 2023 in three different stages. COVID-19 and other extenuating factors, including deadline for thesis completion and changes in leadership within the Department of Physiotherapy, significantly impacted the timeline of this research. The three stages are defined below.

Stage one: *Whakawhanaungatanga + Discovery*.
Kanohi ki te kanohi kōrero (one-to-one interviews conducted face to face) were adopted with Māori co-inquirers in person, with myself as the interviewer.

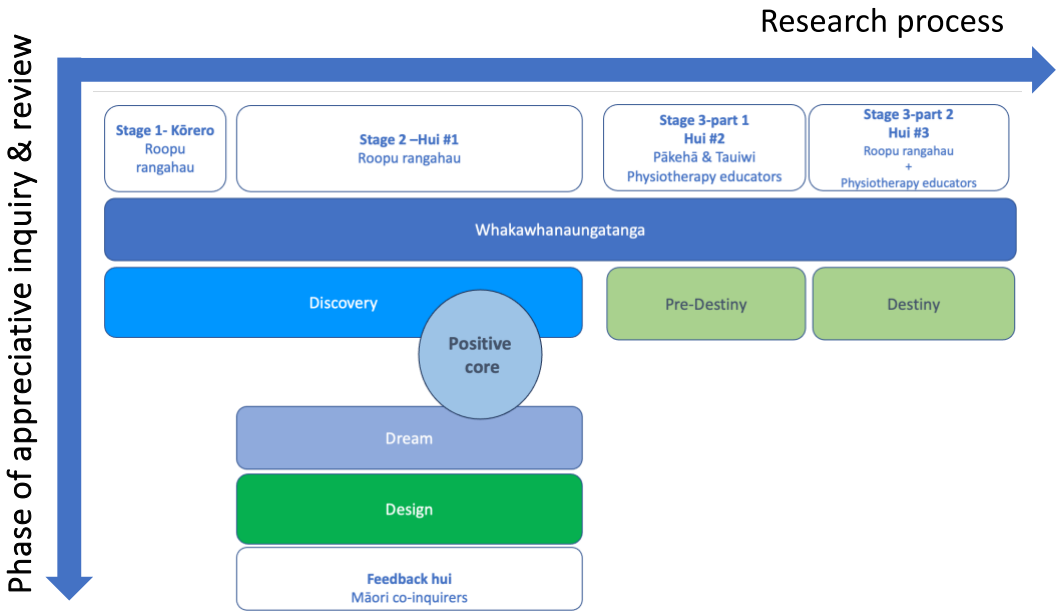
Stage two: *Whakawhanaungatanga + Discovery, Positive core, Dream,* and *Design*.
An online hui was adopted in collaboration with Māori co-inquirers and a member of the research whānau. The *Positive Core* was identified immediately after the *Discovery* phase.

Stage three: *Whakawhanaungatanga + pre-Destiny*.
Unique to this research, the *Destiny* phase was divided into two parts. The first part consisted of a pre-*Destiny* phase and was conducted solely with Pākehā and Tauiwi physiotherapy educators during a kanohi ki te kanohi hui. The second part of the *Destiny* phase will include both Māori co-inquirers and physiotherapy educators and is yet to be completed. The purpose will be to share key findings from earlier stages of the inquiry, provide rationale for the proposed changes for the physiotherapy programme and determine who is responsible for change.

To strengthen the rigour of this research two feedback hui were held with Māori co-inquirers following stage two. These research stages and the phases of the appreciative inquiry addressed within each research stage are outlined in Figure 9.

Figure 9

Overview of the Research Process and Phases of Appreciative Inquiry Employed at Each Stage



Note. The phases of appreciative inquiry are positioned below each of the three research stages. Māori co-inquirers were involved in each stage of the research except the pre-*Destiny* phase (stage three, part one in the diagram). The phase of *Whakawhanaungatanga* occurred at each stage of the research.

4.6 Ethics approval

Ethics approval was granted by the Auckland University of Technology Ethics Committee (AUTEC) on August 21, 2021 for 20/170 A participatory action research study to enhance the experience of Māori physiotherapy students (Appendix A).

From an ethical perspective, it was made clear to Māori co-inquirers that should they wish to continue with postgraduate research at AUT in the future, their involvement in this current research would not be detrimental to their ability to do so. I was not involved in any summative assessment processes within the University involving any of the graduates at the time of the research. Lastly, in terms of the relationship already established between myself and all potential Māori co-inquirers, by consenting to the research they were doing so knowing that I was involved.

4.7 Co-inquirers involved in the research

Two groups of co-inquirers were invited to participate in this research. Māori physiotherapy graduates (group one) and Pākehā and Tauiwi physiotherapy educators of the programme

(group two) participated in different stages of the research and phases of the appreciative inquiry.

Māori co-inquirers participated as a sole group in stage one (kōrero) and stage two (online hui). Creating a space just for Māori was to support Māori self-determination particularly during the *Dream* and *Design* phases of the inquiry where the aim was to consider a place of thriving that supported Māori student success. It also enabled a culturally safer environment for Māori to share their experiences. Physiotherapy educators only participated in stage three, part one of the *Design* phase, known as the *pre-Destiny* phase. Part two of the *Design* phase, will include Māori co-inquirers together with physiotherapy educators. Due to extenuating circumstances this stage will be completed after thesis submission.

An invitation was first offered to Māori graduates of the programme to take part in the research. Physiotherapy educators were not recruited until stage three of the research as this gave roopu rangahau an opportunity to determine the inclusion and exclusion criteria for this next stage. These details will be presented when stage three of the research is described later in this chapter (section 4.12.2).

4.7.1 Recruitment process for Māori co-inquirers

Māori graduates who had undergone physiotherapy education within the AUT physiotherapy programme were invited to participate in the research. To recruit Māori graduates, a face-to-face presentation of the proposed research was delivered to potential co-inquirers', a group of Māori physiotherapy alumni who were meeting together on campus to engage in whanaungatanga and professional development (refer to Appendix F for evidence of the presentation). Following the presentation, those interested in participating in the research were provided with a participant information form (refer to Appendix G), and were asked to contact me if they were still interested. Once direct contact was made, the research procedures were explained, screening took place, and a formal invitation was made. Contact details were collected, and a consent form was sent via email. This recruitment process resulted in more people who were interested in being involved than initially proposed. However, no-one was excluded as all potential co-inquirers' met the inclusion criteria. Subsequently, this added to a rich source of data (Reid et al., 2017).

Māori co-inquirers: Inclusion criteria

Māori who were recruited graduated from the AUT Bachelor of Physiotherapy programme within 5 years from the time ethics approval was sought (as the AUT Physiotherapy programme had been relatively consistent throughout this period and within this time frame were more

likely to recall experiences). They were required to be a member of Tae Tina Ora (Māori Physiotherapy Special Interest group) or the AUT alumni, as this represented their ongoing commitment to the advancement of Māori within the physiotherapy educational setting. They were also required to be registered physiotherapists and under current employment in the health sector. Additionally, as I am an educator within the programme, potential co-inquirers' could not be in a current assessment relationship with myself if undertaking postgraduate studies. Lastly, potential co-inquirers' needed to be available when kōrero and hui were scheduled. Other ethnic groups were not included as the purpose of this research was not to compare data between different ethnic groups.

4.7.2 Sample size of roopu rangahau

Five Māori co-inquirers were recruited for stage one of the research. The inclusion of five co-inquirers was deemed sufficient to gather in-depth stories that would provide a springboard for ongoing discussion (Sandelowski, 1995; Walker et al., 2006). Thirteen Māori co-inquirers participated in stage two, the online hui. Co-inquires' were male and female, aged from early 20s to late 40s, and were from urban and rural areas of Te Ika-a-Maui (the North island) of Aotearoa. All co-inquirers involved in stage one participated in stage two.

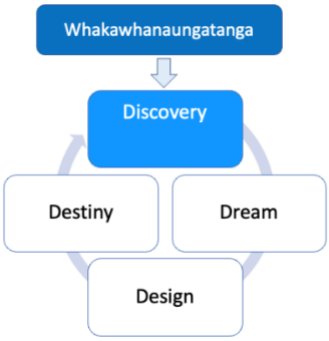
4.7.3 Consent

Informed consent was gained from Māori co-inquirers prior to data collection as per the AUTEC consent process (Appendix G). Co-inquirers' were advised that confidentiality would be always ensured with no personal information disclosed (no names or identifying features were recorded in the transcription which was their own decision). They were also advised that their involvement in the research was voluntary, and they could withdraw at any stage. Further, co-inquirers' were advised that although the *Discovery* phase of the inquiry was largely about the positive aspects of experiences, negative experiences could still be discussed either within these forums or another time with a member of the research whānau present to safeguard them. The audio content from each of the research stages was recorded with consent via an external audio-recorder and later transcribed verbatim for future analysis, interpretation, and reflection.

Roopu rangahau

Māori co-inquirers involved in this research hereafter are known as roopu rangahau. The name 'roopu rangahau' was gifted to me by Māori physiotherapy graduates who participated in this research. Roopu rangahau in the context of this research translates to the research group. This term is adopted to represent the group as a whole and individual members who contributed to and are deeply connected to this kaupapa (matter for discussion).

4.8 Stage one: Whakawhanaungatanga + Discovery



The aim of stage one was to engage roopu rangahau in the *Whakawhanaungatanga* and *Discovery* phases of appreciative inquiry. This was to uncover times when they felt valued and inspired as a student in the physiotherapy programme.

Kōrero were held between December 2020 and February 2021, after work hours (Aotearoa was operating at Level 1 with respect to COVID-19 at that time so there were no restrictions in terms of meeting kanohi ki te kanohi (New Zealand Government, 2020). An invitation was extended to roopu rangahau to bring to the kōrero their whānau or a support person or have a cultural support person from the research whānau to act as kaitiaki[32]; however, this offer was declined. No time limits were placed on the kōrero, and most were completed between 60 and 90 minutes.

4.8.1 Kōrero process

Kōrero were conducted with the five roopu rangahau, in a physical space known as the whānau room (a building on the AUT Akoranga campus dedicated for Māori students). The whānau room is a simple prefab with a small kitchenette, and table and chairs next door to a larger room that has additional tables, and chairs, and resources including computers for all Māori students to congregate socially, prepare and eat kai (food), and study. This room was established for Māori in the early 1990s, initially instigated by nursing and midwifery staff who were part of a Bicultural Action Group (D. Spence, personal communication, January 15, 2024). Later, this space continued to be supported with the new development of a Kawa Whakaruruhau (Cultural Safety) Committee set up by the nursing department which included Māori from the community who, at that time, had input into the teaching and support for Māori students (N. Smith, personal communication, January 15, 2024). This space was carefully chosen because it is a space known to be valued highly by Māori students and graduates of the programme. Engaging in kōrero within this space helped to re-establish trust that was required to facilitate affirmative discussions.

4.8.2 Hui process of engagement

The hui process was adopted to guide the kōrero. There are four stages to this process which include: mihimihi, whakawhanaungatanga, kaupapa and poroaki/whakamutunga. In relation to

[32] Kaitiaki is the name given to someone who typically carries out the role of carer, guardian, protector, and conservor Royal, 2012).

the approach to the appreciative inquiry, the first phase of *Whakawhanaungatanga* integrated within the initial stage of the hui process; whereas the *Discovery* phase was addressed later in the kaupapa stage. Explanations of each stage follow.

Mihimihi

The kōrero was initiated with a mihimihi[33] in English, a process of welcome. The decision to open the kōrero with karakia (a prayer or blessing) as part of the mihimihi, was guided by each member of the roopu rangahau. If agreed to, karakia was led either by roopu rangahau or myself. If not requested, I recited a poem or whakataukī. The following is an example of one such whakataukī[34]:

Mā te kimi ka kite, Mā te kite ka mōhio, Mā te mōhio ka mārama

Seek and discover, discover and know, know and become enlightened. (author unknown)

This whakataukī was chosen because the sentiment expressed felt appropriate in terms of the aims of the research, which I hoped reinforced to roopu rangahau that the kōrero was a space for me to listen and learn. This initial welcome was followed by re-iterating the intentions of the research, and roopu rangahau involvement. To allay any concerns regarding the data, roopu rangahau were reassured that all data gathered would be respected and looked after with care (Cram, 2019; Curtis, 2016; Reid et al., 2017).

Whakawhanaungatanga

Whakawhanaungatanga refers to the process of establishing a relationship (Moorfield, 2011). There are different ways to establish relationships in te ao Māori. As the roopu rangahau and I already knew each other, we instead engaged in whanaungatanga, a process to re-connect with each other through the shared experience of research. Undergoing this tikanga process was still vital to creating a balance of power and ensuring meaningful engagement. As the research relationship was new, it was still important to establish trust and settle in each other's company before beginning the *Discovery* phase.

Kaupapa

The kaupapa stage is to address the main purpose of the encounter; so, at this point of the kōrero, the 'discovery' began. Prompted by affirming questions, roopu rangahau were encouraged to share peak experiences of the programme using their own stories, thoughts and

[33] Mihimihi is an introductory speech with a focus on peaceful inter-relationships (Moorfield, 2011).
[34] Although citing a whakataukī is not a traditional tikanga (customary procedure) way of establishing a space for connecting (Dell et al., 2021) the decision to adapt the process (supported by the research whānau) reinforced my intentions of creating a culturally safe space to strengthen the connection between us.

feelings, so that the positive aspects of their experiences during the physiotherapy journey could be identified and/or accentuated. Questions used to elicit affirming stories included:

- When you think of your time studying physiotherapy, what are a few of the highlights for you?
- Now choose one and tell me more about it in more detail.
- Why was it that you felt …
- How did this experience enable you to feel respected and enabled as Māori?
- How did this impact on your time studying?

Although the questions provided a guide, I was conscious not to dominate or interrupt the discussion. In addition, questions were adapted depending on the response given, so that the kōrero continued to align with the idea of *Discovery*. Roopu rangahau fully engaged with this process, evidenced by their willingness to reflect and share details of the experiences important to them. Aspects from their own stories were also used to facilitate the kōrero on a deeper level.

The negative stories

While open-ended affirmative questions were sought to elicit positive stories, roopu rangahau were encouraged to share any story they considered significant. In the case where negative stories arose, I continued to listen. This was followed by reframing original questions, so the inquiry process continued to be transformational (Bushe, 2007). Examples of adapted questions included:

- What is missing within the physiotherapy programme?
- What is the image of what you currently see in the organisation and what would you like to see?
- What would you want more of?

As the process of discovery evolved, the negative stories were in fact essential to bringing to the surface what really mattered. Further, roopu rangahau freely discussed the personal challenges and barriers they faced, indicating that a high level of trust between us had been established. Opening a space for negative discussions was, therefore, an integral part of the *Discovery* phase.

Poroaki/whakamutunga – the closing of the kōrero

Once the *Discovery* phase came to a natural end, the poroaki/whakamutunga, the closing stage of the kōrero, took place. Karakia was offered to formally close the session. Roopu rangahau were thanked for their participation and generosity in terms of their time, knowledge, and wisdom, and koha was offered as part of due process (Jones et al., 2006). Later, a follow-up

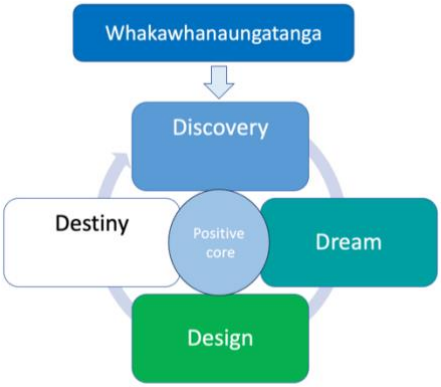
email was sent to each of them to reiterate my appreciation. A copy of the transcripts for them to keep as a record of their contribution was also provided.

Following the kōrero I received emails from roopu rangahau which included the following: “Kia ora Whaea Jill, Thank you for giving me the opportunity to share my story. I hope it helped in some way and I definitely look forward to the journey ahead” (P5, personal communication, January 5, 2021). Also shared in this email was a quote by Brené Brown, an American researcher and storyteller known for their work on courage, vulnerability, shame, and empathy.

> Connection. I define connection as the energy that exists between people when they feel seen, heard, & valued; when they can give & receive without judgement; and when they derive sustenance and strength from the relationship. (Brené Brown, n.d.)

This personal response affirmed to me that the approach taken to create a space where roopu rangahau felt safe to share their views had been achieved.

4.9 Stage two: Discovery, Dream, Design hui and feedback hui



This second stage of this research involved conducting an online hui with a group of roopu rangahau. Providing such a platform to hear the voice of many, created an opportunity to solicit ideas and views of the collective. The specific aims of this hui were to engage roopu rangahau in successive phases of appreciative inquiry beginning with *Whakawhanaungatanga*, followed by identification of the *Positive Core*, the *Discovery*, *Dream*, and finally the *Design phase.* Some preliminary data analysis occurred prior to the hui to inform the discussions held at this time. The aim was for roopu rangahau to explore the research question on a deeper level, inspire dreams, and self-determine recommendations for transformative change for physiotherapy education that reflected Māori aspirations.

Recruitment of roopu rangahau

The same inclusion criteria as described in section 4.7.1 was adopted to recruit roopu rangahau for the hui. This resulted in 13 roopu rangahau who met the criteria and were available to participate. Additional roopu rangahau were included to add richness to the data. The ethics approved participant information sheet and consent form for the hui is presented in Appendix H.

Online hui platform

The online hui was held on the evening of August 27, 2021; this date and time was decided by roopu rangahau. It was held in the evening so that it did not interfere with family and work commitments (due to COVID-19 many of us were now working 'online'). No time limit was placed on the hui; while planned for 2 hours it lasted over 3 hours. This was an indication that the online format was not a barrier to collaborative discussion.

To convene the hui within an online format, an online platform called *Blackboard Collaborate* was utilised (Blackboard collaborate, 2020). This is a web-based virtual learning environment and learning management system used by AUT at the time this research was conducted. Alongside a real-time video conferencing tool, the *Blackboard Collaborate* platform has several functions including: sharing of PowerPoint slides, participant engagement through chat function, an interactive white board, and breakout groups. I was proficient in using this platform, as it was used extensively for the delivery of physiotherapy education during COVID-19. To connect to the platform, roopu rangahau were sent a confidential link for the agreed date and time. They were orientated to the platform prior to the formal start of the hui. An intuitive system, roopu rangahau navigated it with ease. The audio content for the hui was recorded with consent via an external audio-recorder and later transcribed verbatim for future analysis, interpretation, and reflection.

4.9.1 Creating a culturally safe research space online

The original aim of convening a hui was to enable individual and collective stories of success to emerge and be shared between roopu rangahau. Establishing a level of trust between myself and roopu rangahau was critical to creating an atmosphere where roopu rangahau felt willing to share their stories. The shift to an online space raised concerns for me, so I met with a member of the research whānau to seek advice regarding how to successfully create an environment of openness within an online space. Together, we decided it would be important to provide some adaptability where roopu rangahau could self-determine the process of engagement. As the appreciative inquiry approach would position Māori perspectives centrally, it was considered advantageous in terms of promoting quality discussions within an online space. Adopting tikanga processes familiar to the roopu rangahau would also support interactions between co-inquirers by creating a space that was collaborative and inclusive for roopu rangahau to gather and share their experiences in this format. It was also agreed that it was important to have the presence of a research whānau member known to roopu rangahau to support their cultural safety during these data collection stages. A member of the research whānau, Tammi Wilson Uluinayau, agreed to be in attendance which was fitting as through her role as Māori Kaiarataki

at AUT she was well known to the roopu rangahau. Everyone attending the hui also knew each other. With the Māori-centred framework underpinned by relationality, it meant that together, as a group, we were in a strong position to meet the research aims.

Convenors of the hui

Tammi Wilson Uluinayau (hereafter known as Whaea Tammi) and I convened the official proceedings of the hui. Consistent with an appreciative inquiry approach, we were both regarded as co-inquirers; however, we did not add our views to the discussion. We met prior to the hui to devise an agenda, clarify roles and expectations of the hui (refer to Appendix I). The roles we each took on were specific to our expertise and are described as follows.

Role of research whānau member (Whaea Tammi):

- Support roopu rangahau during the hui as a moderator and facilitator and lead tikanga.
- Welcome roopu rangahau into the research space and set the scene for the hui.
- Encourage discussion between roopu rangahau to ensure everyone's voices are heard and a broad range of opinions captured.

Role of lead researcher (myself):

- Welcome roopu rangahau.
- Facilitate the appreciative inquiry process in a way that was tikanga (aligned with Māori-centred framework).
    - ensure the research question was addressed and the expected outcomes met.
    - adopt practices similar to those used during the kanohi ki te kanohi kōrero to establish trust and facilitate discussion where necessary.
- Be a good listener.

4.10 Online hui process of engagement

The online hui was also guided by the hui process of engagement described earlier. The following describes how this process of engagement was fulfilled in the online format.

4.10.1 Mihimihi

Whaea Tammi led the mihimihi in te reo Māori to welcome roopu rangahau and thank them in advance for their time. The following karakia was chosen by Whaea Tammi:

> *Tūtawa mai i runga*
> *Tūtawa mai i raro*
> *Tūtawa mai i roto*
> *Tūtawa mai i waho*
> *Kia tau ai te mauri tū,*
> *te mauri ora ki te katoa*
> *Hāumi e, hui e, tāiki e*
>
> *I summon from above,*
> *... below*
> *... within*
> *and the surrounding environment*
> *The universal vitality and energy*
> *to infuse and enrich all present*
> *Unified, connected and blessed*
>
> Scottie & Stacey Morrison (date unknown)

The rationale for this particular karakia was to bring everyone together within the online space, and to openly convey the intentions of our actions as convenors of the hui were to guide and protect, so everyone within the space felt like things had been done as needed to prepare them for what was to come and to ensure the outcome was favourable (T. Wilson Uluinayau, personal communication, August 18, 2021).

4.10.2 Whakawhanaungatanga

The stage of *whakawhanaungatanga* followed next, with the key purpose of establishing a connection and promoting purposeful engagement. Roopu rangahau were invited to introduce themselves, then share with the group a taonga (a treasure) that had significant meaning to them (when initially invited to this hui roopu rangahau were asked to have access to a treasured taonga to share). Most roopu rangahau introduced themselves in te reo Māori through pepeha[35] and willingly shared stories belonging to their taonga.

The act of sharing taonga was facilitated to enhance the connection between roopu rangahau and build an 'appreciative' group dynamic within the online space. Examples of taonga shared included photos of whānau (some who had recently passed), pounamu pendants (carved greenstone-a precious stone found in Aotearoa) given as graduation gifts from whānau and

[35] In sharing pepeha, two roopu rangahau discovered they were connected via their iwi. Due to their potential of connecting people, pepeha are valued highly (T. Pryor, personal communication, November, 17, 2023).

elders, a handmade wooden carving made by one participant for their wife as a wedding gift, art work, and, lastly, a newborn baby (who slept for the duration of the hui on the chest of their Pāpā (dad)). As active co-inquirers, both Whaea Tammi and I also introduced ourselves through our pepeha and shared taonga important to us.

While the stories that showcased the taonga were very meaningful, these were not transcribed as a sign of respect. However, due to the deeply personal nature of these stories it was evident that roopu rangahau were comfortable expressing their personal views within the online space. Further, while they shared their stories, roopu rangahau began to re-live experiences of thriving during their physiotherapy studies. This was unexpected. The sharing of taonga serendipitously segued into the *Discovery* phase. *Whakawhanaungatanga* had generated an atmosphere of possibilities and potential.

Personal reflection on the process of whakawhanaungatanga

At the time taonga were shared, a certain type of energy[36] permeated the online 'atmosphere'. I also noticed that a deep level of care was shown by roopu rangahau towards each other as they shared their stories. The following reflection was written in my journal after this first hui:

> *Beautiful stories were shared as they talked about their taonga… the way they all cared for and were supportive of each other and me as we shared our stories was amazing and the atmosphere was electric yet I can't quite pinpoint what it was... it kind of felt magical…and there was this sense that something special was about to happen*. (August 21, 2021)

4.10.3 Kaupapa

The kaupapa of this hui involved engaging in three phases of appreciative inquiry: the *Discovery*, *Dream*, and *Design* phases. With a certain 'vibe' already created from the previous phase of *Whakawhanaungatanga*, the transition into the *Discovery* phase was seamless. To begin with, the aims of the hui were introduced, including an overview of the appreciative inquiry process using a short PowerPoint presentation (refer to Appendix O). A well known whakataukī about collaboration[37] was recited to reinforce collaboration was valued:

[36] Immediately following the online hui, I talked with Whaea Tammi about the 'energy' I had sensed. She referred to this as 'wairua'; being together created wairua (T. Wilson Ulunayau, persoanl communication, August 21, 2021).

[37] This particular whakataukī was referred to many times by co-inquirers throughout the research.

Ehara taku toa i te toa takitahi

Engari he toa takitini

My strength is not as an individual but as a collective

(Sir Apirana Ngata 1874-1950 from Mauri ora: Wisdom from the Māori world, cited in (Alsop & Kupenga, 2016))

To reinforce the collective approach to the research, roopu rangahau were given the opportunity to lead the discussions. However, in allowing this, careful management from myself was required so that discussions remained within the constructs of appreciative inquiry. While wanting to be respectful of roopu rangahau, yet still meet the objectives of the hui, the following strategies were engaged:

1. When time was allocated for group kōrero, I would reiterate the aim of the kōrero.
2. When it was time to move to a different phase, I would first ask if anyone had anything further to discuss, and if they were ready to move on.
3. I listened for the language being used by roopu rangahau to determine if it was appropriate for the phase at the time. If not, then I would use their words or refer to stories already shared as triggers to step back into a phase or move into a different one.
4. I was open to shifting forwards and backwards throughout the phases.
5. Regular breaks were held throughout the hui so roopu rangahau had opportunities to socialise with each other informally and chat outside of the confines of the research.
6. The roopu rangahau self-determined the end time of the hui.

By adhering to these guidelines, the appreciative inquiry proceeded successfully. To follow I describe how the aims of each phase were met.

The Discovery

The aim of the *Discovery* phase was to explore further 'what had mattered most' to roopu rangahau during their experiences in the physiotherapy programme. The collaborative nature of the hui meant that the discovery data were generated in a more organic manner compared to the kanohi ki te kanohi (face to face) kōrero (interviews) in stage one. To bring the co-inquiry to life and stimulate discussion, a summary of the findings from the kōrero were provided to the roopu rangahau via PowerPoint in the form of word cluster diagrams. An example of a cluster diagram is shown in Figure 10; key words are reflected when roopu rangahau interviewed during the kōrero spoke about physiotherapy educators coming into the whānau room on campus. Key words mentioned often included feeling 'safe', being 'empowered', and being 'seen'. The purpose of revealing these word cluster diagrams was to stimulate discovery discussions, which were further strengthened by highlighting the generative language that had

already been adopted. Further, as there were roopu rangahau present who had participated in kōrero (stage one), they were invited to talk to these cluster diagrams which brought a level of reality to the words shared.

As a means to stimulate additional discovery discussions amongst the roopu rangahau, similar questions used in the kōrero were asked of the wider group. As we worked through these questions, roopu rangahau openly shared experiences that 'mattered the most' to them. It became apparent that while some roopu rangahau led the discussions, others would tautoko each other (show support, agree to), and this occurred consistently throughout the hui. So, while one roopu rangahau may have offered something, the sentiment was often shared by the collective. After allowing time to discuss together, a 'dream' like undertone started to emerge. I took this as a sign roopu rangahau were ready to move into the next phase of the inquiry.

Figure 10

Words That Express How Roopu Rangahau Felt When Physiotherapy Educators Connected with Māori Students Within a Māori Space on Campus

Note. The data for this word cluster diagram were gathered from the kōrero. Roopu rangahau who participated in the kōrero were also present at the hui.

4.10.4 Discovering the positive core to navigate change

Before entering the *Dream* phase, the *Positive Core* was next identified. The core would inform the basis for envisioning a future physiotherapy programme (the *Dream* phase) and guide the transformative process (the *Design* and *Destiny* phase).

To identify the *Positive Core*, roopu rangahau were first asked to reflect on their earlier discussions and 'bring together' key concepts or elements that sat at the heart of 'what mattered the most' during their experiences. To trigger their thoughts, a summary of earlier findings from the kōrero were presented via PowerPoint. Following time to reflect, roopu rangahau shared their thoughts and wrote these on an interactive white board. As they discussed their dreams, common factors between their experiences emerged. Next, roopu rangahau were asked to identify the *Positive Core*; a term, concept, or word that represented all their shared experiences; encompassing both the strengths of the programme; their culture, beliefs, and values; and supporting the hopes and dreams of the future generation of Māori physiotherapy students. The *Positive Core* was subsequently identified.

While there was success in the naming of the *Positive Core*, as it has such an integral role in navigating change, developing a shared understanding amongst roopu rangahau was necessary to ensure the *Positive Core* represented their collective voice. To follow, roopu rangahau co-constructed a shared meaning of the core within the context of physiotherapy education. This final stage of the process consolidated the *Positive Core* that had been identified as the foundation or reference point for the next part of the inquiry, the *Dream* phase.

4.10.5 The Dream

The purpose of the *Dream* phase was for roopu rangahau to 'imagine what could be' in the future of physiotherapy education. To achieve this outcome, roopu rangahau were asked to take their imagination beyond the horizon to a place where there are no limits, judgements, or barriers and envision physiotherapy education as a place of thriving. While engaging in blue sky thinking, the *Positive Core* formed the foundation from which they dreamed.

Facilitating the dreaming process

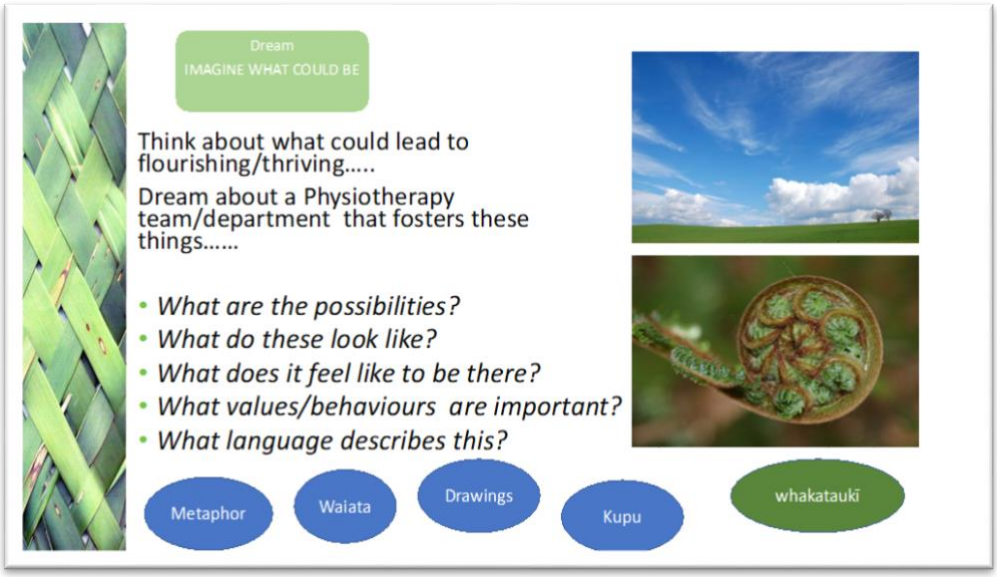
To support the process of 'Dreaming' within the online space, roopu rangahau were 'placed' into separate breakout rooms to provide a space that was safe, confidential, and supported self-determination. I did not enter these rooms, nor did I participate in the discussions. So that dreaming discussions could be facilitated without my presence, PowerPoint slides were made available within the Breakout Rooms so the 'dreaming questions' and initial themes from the

earlier *Discovery* phase were available for review. An example of the dreaming questions is shown in Figure 11.

Once roopu rangahau were in the breakout rooms, they were encouraged to dream of physiotherapy education as a place of thriving and express this in any way (e.g., using words, concepts, poems, songs in te reo Māori or English) and record these on an interactive white board within the breakout room for later use.

Figure 11

The PowerPoint Slide Used to Facilitate Dreaming with Roopu Rangahau



Sharing the Dreams

Back together in one space, roopu rangahau were invited to share their dreams with the wider group. While some led this discussion, others added to what had been said. My role at this time was to listen, encourage sharing, and ask probing questions when something needed further clarification. Over time, commonalities within their dreams emerged. Key themes that represented their dreams were next identified by the roopu rangahau, bringing the *Dream* phase to a close.

4.10.6 Design

The purpose of this next phase, the *Design* phase, was for roopu rangahau to design solutions inspired by the dreams that would guide the transformation of physiotherapy education into a

space of thriving. Recommendations known as 'priority statements of change' would provide the pathway as to 'how to get there', providing the foundation for transformative change.

Identifying the strategic pathway of change

To support the design process, roopu rangahau were asked to consider potential recommendations, discuss the pros and cons of each, and how these could become a reality. Through this process initial priority statements started to form. However, due to time restraints, these were not refined until the feedback hui (refer to section 4.11). The priority statements were a critical part of the next and final phase of the inquiry, the *Destiny* phase, as these would support and guide the direction of change required in the physiotherapy programme to create a space of thriving.

4.10.7 Poroaki/whakamutunga

The completion of the *Design* phase meant that the intended aims of the online hui had been met. Roopu rangahau were invited to make any closing comments. Many gave thanks for the opportunity to come together as a collective and participate in something they were passionate about:

> *it's really, really awesome to get all this off our chests… and just to be heard. So that's cool thank you for that.* (P6)

As convenors of the hui, Whaea Tammi and I expressed our gratitude for the generosity of time and wisdom of the roopu rangahau. To close the hui, one roopu rangahau shared a karakia.

Following this hui, a follow-up email was sent to roopu rangahau to reiterate my thanks and to offer any additional support if any of the discussions had fostered negative emotions that needed addressing. In addition, a gift of koha along with a hand-made card (made by my daughter) with the positive core inscribed on the front, was sent as part of due process and to express the depth of my appreciation.

4.10.8 Online hui reflections

The hui was a phenomenal experience—for me personally and for roopu rangahau signalled by their enthusiasm to contribute to the kaupapa. Throughout the hui there was a real sense of community coupled with a strong desire to contribute, not only to this research but to the future generation of Māori physiotherapy students. Following the online hui, I received several emails from roopu rangahau highlighting their appreciation for the opportunity to share their stories. Examples of these comments can be found in Appendix K. The positivity expressed in these messages demonstrate how much roopu rangahau valued and appreciated the

opportunity to re-connect with each other and to share their experiences, hopes and dreams for the future. This was the first time they had been offered this opportunity with someone from within the physiotherapy programme to share their views and perspectives in a culturally appropriate way. I was personally overwhelmed by the richness of the discussions and humbled to be part of this experience.

4.11 Feedback from roopu rangahau following kōrero and online hui

Feedback opportunities for roopu rangahau were integral to this research process. Seeking feedback from roopu rangahau were integral to the data analysis to ensure interpretation of data accurately represented roopu rangahau views and perspectives. Feedback was sought from roopu rangahau in two forms. Firstly, feedback hui were arranged; secondly, transcripts from the kōrero, and/or online hui were emailed to roopu rangahau. Drafts of some key results chapters were also sent to roopu rangahau for review. Designed to enhance the trustworthiness of the research, these feedback processes also provided an opportunity to correct any misunderstandings or missed points that were considered integral to roopu rangahau experiences (Cavanagh et al., 2012). Engaging again with roopu rangahau also enabled me to develop a deeper understanding of the data.

Feedback hui

Two feedback hui were initiated to share key findings and gather additional information from roopu rangahau. Both hui were online, with the two offered to suit everyone's availability. The format of the hui were guided by the hui process, and all relevant information to be reviewed shared via PowerPoint. Feedback pertaining to the findings from each of the appreciative inquiry phases were sought. Findings from the initial stages of the thematic analysis process (refer to section 5.15 for more detail of data analysis) were also presented to roopu rangahau to gather 'member reflections' on initial codes, and early theme development. Braun and Clarke (2021) suggested that this process provides an avenue to check accuracy of the data and generate additional data. Further details of the thematic analysis process are discussed in section 4.17 to follow. Lastly, the priority statements were refined in preparation for stage three of the research, the *Destiny* phase.

During these feedback hui, some of the language or terms roopu rangahau adopted during the kōrero and/or hui, particularly those expressed in te reo Māori, were discussed. For many Māori, te reo is considered a taonga (Skerrett & Ritchie, 2021). With te reo considered integral to the identity of some roopu rangahau, it was important that I, and others, could understand the meaning of these terms, and that these were captured appropriately within the analysis. While te reo Māori was expressed infrequently, exploring it further resulted in on-going and

enriching discussions which created more depth to the data. Further, from a personal perspective, I was able to embrace these words or phrases more confidently in the company of roopu rangahau, and within this thesis. Lastly, highlighting this taonga of language within the research findings will at a later point help to socialise and/or normalise te reo within physiotherapy education.

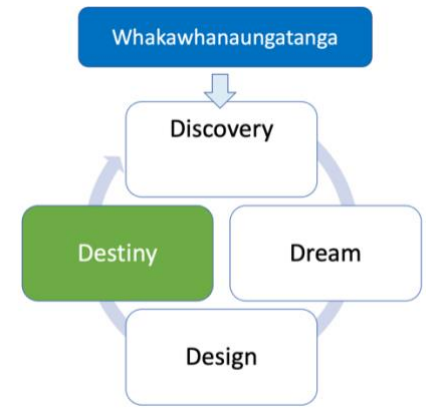
Transcripts for review

To further enhance transparency, transcripts from the kōrero and online hui were emailed to roopu rangahau to member check. They were invited to add or delete anything, or share any reflections regarding the research process or data generated. In addition, roopu rangahau were asked to review te reo Māori, check spelling, and provide further clarity regarding anything that had been discussed. No amendments were made to the original transcripts; although I was sent some useful resources by roopu rangahau to support me in my journey of understanding te ao Māori, and these have been referenced within this thesis.

Chapter draft review

Roopu rangahau were provided drafts of some results chapters via email to affirm that the data analysis represented their views. They were invited to share their insights into how these findings might be better understood from within a Māori worldview. They were also invited to offer any cultural and political advice. Final copies of the thesis will be disseminated to roopu rangahau in due course. All of the aforementioned review processes were engaged with to help maintain trust and rigour throughout the research process, and honour the principles outlined in the Māori-centred framework that relate to privileging the views and perspectives of Māori.

4.12 Stage three: Preparing for Destiny



The *Destiny phase* is typically guided by the priority statements identified in the previous *Design* phase with the aim to begin the process of transformative change within the physiotherapy programme. The most effective way to facilitate transformative change is to collaborate with those responsible for change (Bushe & Kassam, 2005; Ludema & Fry, 2008).

For transformation to be generated from the recommendations identified in the *Design phase*, unique to this research the *Destiny* phase was split into two parts. The first was a preparatory stage known as a *pre-Destiny* phase. This involved a group of Pākehā and Tauiwi physiotherapy educators (group two co-inquirers) to

prepare them for the proposed change and to work effectively and appropriately alongside roopu rangahau in the second part of the *Destiny* phase, the 'action stage' of this phase. Effective and sustained change within the programme will require roopu rangahau and Pākehā and Tauiwi physiotherapy educators planning a way forward together. Due to time restraints, only the pre-*Destiny* phase was completed as part of this thesis. A new Head of Physiotherapy from overseas has only just begun their role in early 2024. It seems important to wait until they have familiarised themselves with the local context, so they can actively support the ongoing change process. The *Destiny* phase will occur beyond the completion of this thesis. Ethics approval has already been gained. The following section outlines the pre-*Destiny* phase.

4.12.1 Preparing for transformative change

The purpose of the pre-*Destiny* hui with Pākehā and Tauiwi physiotherapy educators as co-inquirers was first to describe the research aims and introduce them to the concept of appreciative inquiry. Key findings from the first two research stages were also shared including dreams of roopu rangahau for physiotherapy education in the future. By sharing some of these findings recommended by roopu rangahau, this was to provide an insight to Pākehā and Tauiwi educators regarding change within the programme that had been identified and create some discussion pertaining to now this might become operationalised. The intention was also to ascertain who might be responsible and what support or resources may be needed to achieve culturally-based change. It was also hoped that this may prompt this group of co-inquirers to engage in critical reflection together particularly in terms of their roles as educators within a westernised based programme. The final outcome of the hui was to highlight to the educators the importance of working together with Māori, within a Māori centred way, to achieve positive change within physiotherapy education. An important part of this hui was therefore to demonstrate the tikanga processes that can be adopted to create a safe shared space. Whilst the primary rationale was to prepare Pākehā and Tauiwi educators to work together with Māori in the Destiny phase still to come, but secondly enable Pākehā and Tauiwi educators to talk openly and honestly about instigating culturally-based change within physiotherapy education. For this reason, under the guidance of the research whānau and roopu rangahau, the hui was convened solely with Pākehā and Tauiwi educators to facilitate more open discussions and address any concerns.

Whilst this pre-*Destiny* phase was the first step towards a successful *Destiny* phase, it also aligned with the first 'priority statement' established during the *Design* phase (shown in Fig. 12) which was for physiotherapy educators to develop a greater understanding of Māori values. Subsequently, the same cultural process of engagement used in stages one and two were

adopted during the hui to support growth and understanding of what meaningful engagement between Māori and Pākehā/Tauiwi could and should look like.

Figure 12

First Priority Statement from Design Phase

The core values of whanaungatanga, aroha, manaakitanga, and kotahitanga are embedded and 'lived' within the physiotherapy programme

Strategy: staff attend workshops to engage with a deeper understanding of what these values mean

Note. A full list of the priority statements is reported in the Design results, Chapter 8.

4.12.2 Recruitment of Pākehā and Tauiwi physiotherapy educators

To recruit Pākehā and Tauiwi educators for this hui, the purpose of the research was shared at a monthly physiotherapy staff meeting. A participant information sheet and consent form were emailed to those who expressed an interest (refer Appendix R). This second group of co-inquirers to participate in the third stage of the research met the following inclusion criteria:

- Permanent educators employed within the AUT physiotherapy programme.
- Showing an interest in culturally responsive physiotherapy education.
- Available when hui is scheduled.

The Tauiwi and Pākehā co-inquirers consisted of seven physiotherapy educators whose position at AUT ranged from lecturers to associate professors. All taught on the current undergraduate programme. No-one held the role of clinical educator. Participation was voluntary and co-inquirers were informed they could withdraw from the research at any stage. All of the co-inquirers were my colleagues and I had worked closely with many for a number of years.

4.13 Pre-Destiny hui

The hui was conducted kanohi ki te kanohi as there were no COVID-19 restrictions and processes were led by myself.

4.13.1 Mihi and whanaungatanga

To open the hui, a mihimihi in English was delivered followed by a whakataukī recited in te reo Māori that conveyed the message of collaboration. A majority of the hui was allocated to

whanaungatanga to begin to address the priority statement. Rather than talk about concepts, the educators experienced the process instead. The same process of sharing taonga undertaken in the online hui with roopu rangahau was adopted at this time. The rationale for this was to role model how I achieved a space of trust and respect between myself and roopu rangahau. This process was facilitated by placing all co-inquirers around a circular table whereby a korowai gifted to me by Māori graduates of the programme was displayed across it. Everyone was invited to touch the korowai as they shared personal taonga to create a sense of togetherness and openness and facilitate ongoing, enriching conversations. This initial process was followed by sharing kai together.

4.13.2 Kaupapa

The kaupapa of the hui were introduced including re-introducing the rationale and paradigm of the research and language associated with appreciative inquiry. To experience the appreciative inquiry process, Pākehā and Tauiwi educators initially engaged in some discovery discussions. Next, they were encouraged to consider a future of a physiotherapy educational environment that was thriving. To help promote these discussions, co-inquirers were asked to consider the following questions first in small groups and note their main ideas on large pieces of paper, then share these with the wider group. These questions included:

1. What does the physiotherapy programme currently do well for Māori?
2. What does success look like for Māori?
3. What could a physiotherapy programme look like that supports success of Māori?
4. What could we do now that might achieve this impact?

Lastly, to facilitate some general discussion some of the initial findings from roopu rangahau were shared.

4.13.3 Poroaki/whakamutunga

To draw the hui to a close, the purpose of the next stage of the research, the *Destiny* phase (part two), was outlined. The co-inquirers were next invited to share any reflections, thoughts, or concerns, and advised to contact me should they have any concerns or feedback. Finally, the co-inquirers group were thanked for their time and contribution. To close the hui a quotation brought to my attention by roopu rangahau by Brené Brown that centred around the importance of 'being heard' (refer section 4.8) was shared to leave a lasting impression of the importance of this research and the impact of making change.

4.14 Destiny phase: Part two

The *Destiny* phase of this inquiry is yet to be completed. Its purpose is to guide the implementation of the priority statements devised in the *Design* phase within the physiotherapy programme. Involving 'change makers' within the physiotherapy programme and university in this process will be a critical part of successfully navigating the process of change, and completing the final phase of the appreciative inquiry. To this end, additional Māori, Pākehā, and Tauiwi educators will be invited to become co-inquirers, including the Head of the Department of Physiotherapy and the deputy Heads of School (Teaching and Learning leads) and Head of the School of Clinical Sciences, will also be invited to attend this final stage of the inquiry. Physiotherapy Board Advisors will also be invited.

The *Destiny* phase will involve a kanohi ki te kanohi hui convened with roopu rangahau and Pākehā and Tauiwi educators and leaders within the physiotherapy programme and wider University faculty. To promote successful collaboration and sharing of knowledge between roopu rangahau and Pākehā and Tauiwi physiotherapy educators and leaders, this process will be guided by roopu rangahau and the research whānau. Whakawhanaungatanga will form a key part of this hui as creating a space that promotes meaningful engagement will be integral. It has already been proposed that roopu rangahau involved in the earlier stages of the current inquiry will share their own experiences with the wider group to provide context to the priority statements established in the *Design* phase. This is so physiotherapy educators and others can connect with roopu rangahau and appreciate, on a deeper level, what was important to Māori during their experiences of the programme and wider university and feel more connected with the intended direction of transformational change.

The completion of the *Destiny* phase will be integral to initiating change that reflects the shared vision of roopu rangahau of a thriving educational space. However, for effective and sustained transformative change, a repetitive cycle of action research coupled with opportunities for regular reflection by educators and leaders will be necessary so that the process of transformative change continues to be supported over time.

4.15 Data analysis

Data included in the analysis were generated from all three research stages; kanohi ki te kanohi kōrero and online hui with roopu rangahau, and the kanohi ki te kanohi hui with Pākehā and Tauiwi physiotherapy educators. Due to the participatory nature of the appreciative inquiry, different approaches were adopted to analyse the data. The analyses of data gathered occurred in two parts so the process used to identify key findings at each phase of the inquiry was

transparent (McNae, 2018). The first part involved processes of shared analysis, the second involved a process of thematic analysis. The rationale for bringing together different views for the data analysis aligned with the philosophy of the Māori-centred framework. This was also important for rigour considering the main aim of this research was for Pākehā and Tauiwi physiotherapy educators to make change within a westernised academic physiotherapy programme based on the key findings.

4.16 Part one: Shared analysis

The approach of appreciative inquiry is unique in that it allows for shared analysis of data. Shared analysis occurred with roopu rangahau during the online hui at the completion of each phase of the inquiry. Once themes or a summary of each phase had been agreed to, the next phase began. Physiotherapy educators were also involved in a process of shared analysis following the *pre-Destiny* phase.

Analysis of the *Discovery* phase and identifying the positive core

Roopu rangahau engaged in a shared analysis process of the data generated from the *Whakawhanaungatanga* and *Discovery* phases immediately following these phases. A process of interpretative analysis was engaged in to decipher the elements of roopu rangahau experiences that were common, and to establish the key factors that what mattered most as a collective. A key output of this process was identification of the *Positive Core*.

Dream, *Design*, and pre-*Destiny* phase data analysis

Data generated from the Dream phase were analysed by roopu rangahau to identify the underlying factors within their dreams representative of a future physiotherapy programme during the hui. Following the *Design* phase, roopu rangahau engaged in the process of shared analysis to identify priorities of change or priority statements that specify the actions required for transformative change within the physiotherapy programme. They were asked to reflect on the ideas already identified from the earlier *Discovery* and *Dream* phases to collaboratively design solutions of change and instigate realistic practice. The final 'priority statements' from the *Design* phase (Chapter 8) are the result of a two-step process as these were further refined during the feedback hui. These priority statements were later shared with Pākehā and Tauiwi physiotherapy educators during the pre-*Destiny* phase hui to being the process of transformative change. Lastly, in the pre-Destiny hui, Pākehā and Tauiwi educators engaged together in a process of shared analysis following related discussions.

4.17 Part two: Thematic analysis

The second part of the data analysis occurred once the data collection period had been completed. A thematic approach defined by Braun and Clarke (Braun & Clarke, 2006) was used to analyse combined data generated from the *Whakawhanaungatanga* and *Discovery* phases of the inquiry in stages one and two of the research. Described as a flexible tool that enables a rich, detailed, and complex account of data, thematic analysis was deemed an amenable approach for this part of the analysis (Braun & Clarke, 2021; Terry et al., 2017).

The data collected from the *Whakawhanaungatanga* and *Discovery* phases were the only data set analysed in this way. Also included in the analysis was additional data obtained from the member checking process during the feedback hui, screen shots taken of the interactive white board (that captured roopu rangahau initial thoughts, ideas, and shared analysis) during the online hui, and my own written notes and reflexive journals.

The aim of undertaking a thematic approach to the data analysis was to identify recurring or common patterns in the data and categorise these to provide insight as to what supported roopu rangahau to thrive during their physiotherapy studies. A process known to support collaboration, this meant that connections made within the data and the resulting themes could strengthen the likelihood of research outcomes that are beneficial to Māori (G. Terry, personal communication, March 25, 2019).

One last aspect to consider was that while the purpose of the research was to bring the data together as a whole, because Māori worldviews are not homogenous, thematic analysis provided an analytical approach bringing everyone's ideas together from a shared frame of reference. This was particularly relevant in terms of the lens I brought to the analysis. I needed to approach the analysis with an openness and commitment to understand how it is for Māori, to ensure the views of Māori were appropriately represented while recognising the subjectivity I would bring to the interpretation process. This was achieved by engaging roopu rangahau and members of the research whānau in the analysis process, while I continued to maintain my own reflexivity by continuously reflecting on my personal positioning and assumptions and considering how this might influence the analysis. Acknowledging these factors during the analysis process ensured rigour was maintained, and strengthened the validity and applicability of the final themes (Braun et al., 2019; Terry et al., 2017).

4.17.1 Reflexive thematic analysis

A reflective (inductive) approach to the thematic analysis of the *Whakawhanaungatanga* and *Discovery* data was employed in this research so the data became the focus instead of

theoretical knowledge driving the data (Terry et al., 2017). This approach also acknowledges that the researcher brings their own views and understandings, and removes some of the researcher's own analytic preconceptions (Braun et al., 2019; Terry et al., 2017). As I had the responsibility of representing the views and perspectives of Māori within a written report, this approach was considered suitable by the research whānau.

Data preparation

The kōrero and online hui were audio-recorded with the consent of roopu rangahau. In preparation for the analysis process, all the data were transcribed verbatim professionally by a transcriptionist who was unknown to the roopu rangahau. A confidentiality agreement was signed by the transcriptionist to ensure confidentiality of information.

The thematic analysis process

The transcripts were analysed using Braun and Clarke's (2006) thematic analysis six-phase technique. This six-phase approach ensures the data are analysed in a systematic manner. Members of the research whānau and roopu rangahau were invited to review the data, where preliminary codes and initial theme development were discussed with roopu rangahau during an online hui for feedback. This was to encourage Māori self-determination, invite cultural insights, and ensure that data analysis reflected the co-inquirers' views (Smith, 1999). Including co-inquirers in the analysis process also honoured the Māori-centred framework that underpinned the research. The acknowledgment of the research whānau and roopu rangahau as experts within their own realities during this process both strengthened the analysis and upheld the mana of all involved (B. J. Wilson, personal communication, October 28, 2021). The six phases described by Braun and Clarke adopted in this research included: familiarisation, coding, theme development, reviewing and defining themes, and writing the report. Each are described below as they relate to the current research.

Familiarisation

The first phase of thematic analysis requires familiarisation of the data. During this phase the transcripts were read multiple times, audio-recordings were listened and re-listening to, and I transcribed two interviews myself. During this process of familiarity, additional notes on aspects of the interview such as emotion and tone of voice were taken, as this is considered important by Terry et al. (2017) in terms of the familiarisation process.

Coding

The second phase of the data analysis process is identified as coding. Braun and Clarke (2006) described coding as a process where interesting features within the raw data are identified, which can be assessed further to gain a deeper understanding. Coding in this research was

achieved by re-reading the transcripts and looking for patterns. I completed coding manually by writing codes in a list format on a Microsoft Excel document and highlighting corresponding sections within the transcripts (refer to Fig. 13 that depicts a snapshot of this process). I continued reshaping and developing codes as I continued to engage with the data. During the coding phase, the research question was referred to constantly to ensure codes were relevant. Ongoing discussions occurred with members of the research whānau and supervision team to ensure I maintained a reflexive and inductive approach. Further questioning from these groups enabled me to further broaden my views as to how I looked at the data, ensuring resonance between the codes and themes (Sandelowski, 2000).

Early in the coding process, most of the codes were semantic (i.e., direct quotations from the data. However, as I familiarised myself with the data it resulted in further refinement of the codes, which later became predominantly latent. Also known as interpretative codes, taking the codes beyond surface meaning gave more context to the data and brought together stronger patterns within the data set (Terry et al., 2017). Once I was satisfied that I had developed and refined my codes to capture the full potential of the meaning behind roopu rangahau stories, these codes were used to identify themes (Braun & Clarke, 2006; Schneider & Whitehead, 2013). It was at this stage of the process I shared the coding process and codes, along with some initial concepts for themes with the roopu rangahau to ensure there was a consensus. Following this process some codes were modified accordingly.

Theme development

Experts state that the search for themes can be approached in different ways (Braun & Clarke, 2006; Terry et al., 2017). Fundamental to the process is actively constructing themes by finding connections and similarities between codes that represent a wide range of recurring statements or themes (Terry et al., 2017). I had already written notes on transcripts to identify possible themes and these were related to the initial codes. To establish themes, I initially wrote codes on post-it notes, and positioned these on large pieces of paper. Hand drawn diagrams were then used to visually guide and identify how themes fitted together. Increasing my engagement with the data in this way, coupled with feedback from roopu rangahau and the research whānau, resulted in provisional themes.

Figure 13

Sample of Potential Themes, Subthemes and Associated Codes and Quotations From Excel Spreadsheet

Discovery - "what were the experiences that contributed to your success? What were the highlights at Phyio school? "

Possible codes/themes and subthemes

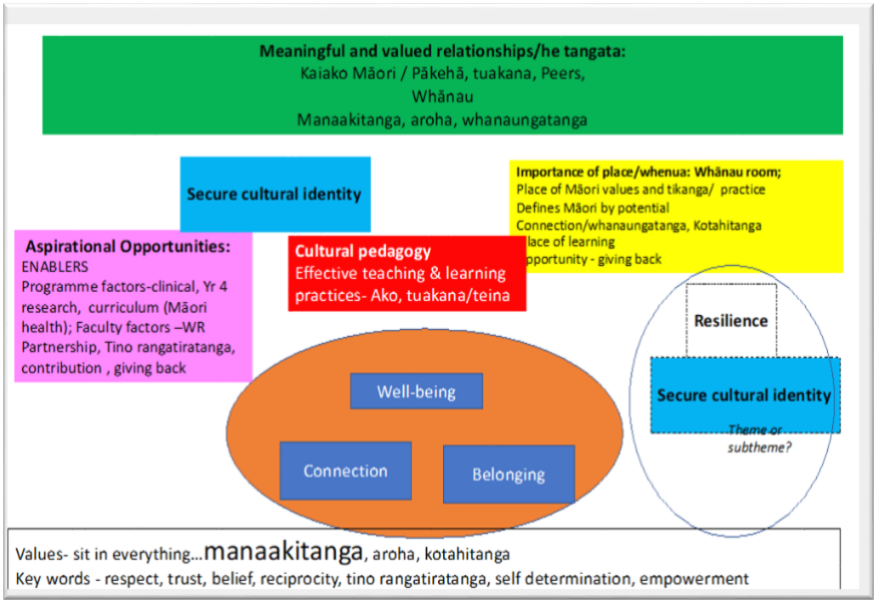
Potential Themes	Potential Codes-Sub-themes	Quotes
Whakawhanaungatanga		
Importance of Relationshisp	meeting 'in the middle' with staff	"Everyone cared a bit more and they actually do want us like pass and they want to know your name and know about you. Um, yeah want to know about you and, and just, get to know you on a bit more of that like personal level as well. Um. So I definitely saw a change"
meaningful connections	Connecting with staff who cared	
	Maori staff were roles models - opens the possibilities	"Those people [staff] who had come to the hangi who would be present in the whānau room, who would show an interest, they were the ones we kind of gravitated towards.. you'd start with the ones you were familiar with and then you'd sort of reach out a bit more"
academic & pastoral support	Whanau room enables relationships	"meeting more on equal grounds a little bit, it broke some of that like fear as well. In the whānau room - we could take it at our pace, we knew how each other studied, it was our space, we were comfortable there".
	tuakana relationships valuable	
	staff who emminate "I see you"	"there's good humans in here you don't want to bring negative energy into this space um. Because this is a safe space"
Tuakana/teina Learning style		
development of a learning community (Ra	working with tuakana was inspiring	"meeting the tuākana and seeing their work, their work ethic and, and how they went about things was really inspiring to watch"
role models (wilson, 2011)	working with tuakana was beneficial for learning	"no one gets left behind or you know if they, they trickle a little bit it's okay because we, we'll all help to get you there in the end you know"
effective tertiary & L practices (curtis, 201	working with tuakana is more than just havign a tutor	"I definitely think like it was hugely beneficial for me and I think it would help anyone but it's not necessarily that the year above has to do the year below or anything but it's having like almost like a middle ground person, especially in those first couple of years when sometimes you're a bit scared to go straight to the lecturer "
whānau room		WR =Institutional factors includes: peer mentoring, safe spaces, specailsied support
Manaakitanga	place to build relationships with staff- meet in the middl	"I was so lucky with my, my year group and the groups of friends and relationships that I've made.... they were a big part of me you know, creating and finding my identity as well so, not even just within uni but, but outside it's that, it's that pastoral kind of thing"
belonging	culturally safe place -	"On friendships developed in the Whānau room "I was trying to study this whole degree, figure out what I wanted in physio but also, finding myself as well and, and connecting with that was, huge. And they were, part of it all and helping me, you know navigate that journey, definitely privileged to have had that opportunity "
whanaunagtanga	Provided a sense of belonging	" the whānau room as a whole has to be one of the biggest highlights, it's just having, that sense of belonging somewhere . I guess you could be you freely, no judgement".
restores mana	my people were there	
collective	A space that is more than just for academic studies	"the whānau room so that was a, a sort of home away from home"
	Friendships	"my people were there, I know they're there so you knew where you could go "

Reviewing themes

Braun and Clarke (2006) suggested the use of a mind-map, or similar, to develop and adapt themes that capture something significant in the data. In this research, a thematic mind-map was developed in PowerPoint (for ease of showing supervisors/research whānau and roopu rangahau) which initially encompassed seven initial themes and a list of miscellaneous codes (refer Fig. 14). These themes were carefully reviewed to ensure they were concise and accurate, did not overlap, and had data to support them. This process ensured that the themes reflected what roopu rangahau had said and remained inductive. On further analysis, and cross-referencing with roopu rangahau and the research whānau, some changes were made to the themes including reducing the number of themes to five main themes. One theme initially identified as 'Whānau Room' was renamed 'Sense of Place'. The theme 'resilience' was eliminated and individual themes with cultural values in their title were renamed as these ideas were captured across all the themes.

Figure 14

Early Thematic Mind Map



Defining themes

The theme names were reviewed together with roopu rangahau for accuracy and clarity, and to clearly identify the essence of what each theme represented. Titles were refined as appropriate. Specific data extracts from the transcripts were selected to support each theme, to show the exact wording provided by roopu rangahau followed by the inclusion of analytic connotations. This is so roopu rangahau perspectives are more closely reflected in each theme.

Writing the report

The final stage of thematic analysis involves writing the report. This process ensures the themes selected answer the research question and depict what is important about the data (Braun & Clarke, 2021; Terry & Hayfield, 2021). In the current research, the themes are described in the *Discovery* results chapter. Completing this final stage of thematic analysis also enabled me to compare the data with similar research (Sandelowski, 2010; Terry & Hayfield, 2021).

4.18 Summary

This chapter has described how a Māori-centred approach was employed to explore the experiences of roopu rangahau during their physiotherapy journey, and begin the process of transformative change within physiotherapy education at AUT. The process of the appreciative inquiry was conducted using kanohi ki te kanohi kōrero and hui across three research stages. Each stage was interwoven with te ao Māori and westernised perspectives, aimed at creating a culturally safe environment for roopu rangahau and Pākehā, and Tauiwi co-inquirers. Different

approaches to data analysis were adopted to support research outcomes that would support transformative change within physiotherapy education and meet the aspirations of Māori.

Chapter 5 Results: Discovery

Whaiwhia te kete mātauranga

Fill the basket of knowledge. (author unknown)

5.1 Introduction

In this research a culturally adapted appreciative inquiry was undertaken to support transformative change within physiotherapy education at AUT. The previous two chapters outlined the Māori-centred methodological framework and the specific processes designed to achieve this outcome. The inquiry process began with the phases of *Whakawhanaungatanga* and *Discovery* during one-to-one kōrero (interviews) and an on-line hui (focus group) to uncover what mattered the most to roopu rangahau during their experiences of the physiotherapy programme. In this chapter, the findings that relate to what supported roopu rangahau to thrive during their physiotherapy journey are presented.

5.2 The five themes of thriving

The themes identified from the *Discovery* phase include: 1) importance of whānau, 2) sense of place, 3) cultural pedagogy, 4) aspirational opportunities, and 5) promotion of cultural affirmation. These five themes represent what roopu rangahau considered key to thriving (see Fig. 15). The way in which Figure 15 depicts these five themes is symbolic. Firstly, the five themes are shown together within a circle which holds these themes together so they do not separate from each other. No theme is more important than the other. The shape that encapsulates each theme represents the unfurling silver fern frond (a plant native to Aotearoa) also known as a koru (loop or coil). In te ao Māori, the koru symbolises new life and growth (Moorfield, 2011). In this research, the koru represents new knowledge. While what mattered most to roopu rangahau is encapsulated within each koru, the unfurling of the koru reflects the growth and understanding of this knowledge that has occurred through this process of social co-construction.

Figure 15

Five Themes of Thriving Generated From the Discovery

Note. These five themes demonstrate how roopu rangahau equipped themselves to thrive educationally, personally, and culturally during their experience of physiotherapy education. Illustration created by design students from Good Health Design, AUT.

Although each theme represents the collective view of roopu rangahau experiences, the irregular shaped body of each koru reflects that the views of roopu rangahau are not homogenous; reinforcing that everyone's contribution is valued. Finally, the tails of each koru link with another koru. While each theme can be viewed independently, relationships exist between them. Lastly, of note, is the colour palate of each koru which has special relevance. The colours reflect the feathers of the tūī (a native bird to Aotearoa) and, in real life, their feathers are a beautiful hue of blues and greens. But, more important than their aesthetics, is that the tūī is one of the loudest birds in the forest (Zealandia, n.d.). This reference to the tūī represents the centring of Māori voices. The interpretation of this figure is supported by roopu rangahau.

To follow, the five themes generated from the thematic analysis are described in detail. Each theme represents recurring patterns in the data that capture roopu rangahau experiences of thriving during physiotherapy education. Although the themes are presented in a linear format, they are not discrete as concepts in each theme overlap. A quotation that captures each theme

leads each section. Data extracts from transcripts then follow so that the nuances of roopu rangahau stories are maintained. Whilst each extract is linked to one individual, they have been chosen because they represent the view of the collective. To protect the confidentiality of roopu rangahau, real names have not been included. Instead each member of roopu rangahau is identified by the letter R followed by a number.

5.3 Theme 1: Importance of whānau

> The things that kind of mattered to me were the types of people that allowed you to feel safe. (R5)

Central to this first theme are the poignant relationships roopu rangahau established during their physiotherapy journey. Establishing positive relationships and meaningful connections were essential to thriving. The term whānau describes the special nature of these relationships. Whakawhanaungatanga, provided the foundation with which many of these deep connections were established. The richness of these relationships was considered by roopu rangahau as integral to their overall experience, contributing significantly to enhanced holistic well-being and academic outcomes within the physiotherapy programme.

Relationships established with Māori physiotherapy students and Māori university academic and support staff were valued highly. Built on mutual trust, respect, and reciprocity, these relationships were further strengthened through regular opportunities of whanaungatanga. Relationships with Pākehā and Tauiwi physiotherapy educators were also well considered. Although not grounded in the same cultural ethos, when physiotherapy educators prioritised building relationships, roopu rangahau felt 'seen' for who they are, which consequently enhanced their engagement. Within this theme, these key relationships and the context in which they were established are explained. The following stories highlight the importance of opportunities and spaces that enabled friendships to develop and be nurtured during their experiences.

5.3.1 Cultural concordant connections

The more meaningful relationships that roopu rangahau tended to establish were with their peers, tuakana, and Māori academic staff. Drawn together by similar cultural values, Roopu rangahau gravitated towards Māori, developing relationships that replicated those of their own whānau.

> I think, for us because we're brown, we had that shared upbringing and it was cultural for us, because we understood each other through those shared experiences of being brown.... We could appreciate and understand each other in that shared space which was our overall culture. (R4)

Roopu rangahau recognised that shared Māori values centred around trust, kindness, care, and showing respect for each other, brought them closer together and cemented their relationships.

> I think that's where our Māoridom comes in - that connection. It's not actually being Māori it's just treating people how you want to be treated and showing them. That's where our culture comes in over everything else. It's like a brotherhood… yeah that brotherhood was just we were the right mix of people for the right time. (R4)

Establishing such strong connections was considered invaluable by roopu rangahau. Feeling cared for and supported by those they felt close to was integral in terms of their academic and personal success. Valued for who they are and what they had to contribute strengthened their sense of belonging within the programme.

5.3.2 Relationships with Māori peers

Close friendships developed with Māori peers early in their physiotherapy studies in the whānau room; a space that drew Māori students together. In this space, there was a strong sense of cohesion; they felt understood in ways that no one else outside of this space could understand them. At the basis of these relationships was a mutual understanding of each other's needs. Peers offered emotional, cultural, and academic support; they provided a resource for each other that included sharing of knowledge, experience, and expertise. While together in social and academic activities of learning, their bonds of friendship strengthened where they formed enduring friendships that lasted beyond their physiotherapy studies. The emotional support, strength, and aroha they gained from each other helped them to feel confident to be themselves within an educational space that was predominantly westernised.

Friendships with peers was critical to roopu rangahau educational success. It was due to the support from their peers and learning from each other that many remained in the programme. Roopu rangahau described how together they supported each other to navigate the academic requirements. They regularly studied together, providing emotional support to one another. Known as a 'hard' course, roopu rangahau constructed their own strategies of pastoral and educational support so that everyone was successful. They attributed their collective success to the formation of a community of learning. Learning with each other, in study groups, not just in

their own year level but year levels above and below, meant they could engage in ways that suited their own styles of learning and this resulted in their success.

> People have talked to me and they were like, 'oh how did you get through uni?' And I was like, 'oh my study group'. In the whānau room working hard for each other I think was the big value we always had. I think, just having that place to share. I always say to people in our study group we all learned in many different ways… and just that value of, letting us have a place to figure out how we learned. And how we wanted to learn more than anything else. (R4)

In terms of completing their degree it was always about the collective, not the individual. Adopting collaborative styles of learning, paired with cultural and emotional personal support, was regarded as key to their success.

> I think that's the thing we all kind of followed, no one gets left behind; or you know if they trickle a little bit it's okay because we'll all help to get you there in the end you know… and that's just who we are. You work together, you start together, you finish together. Everyone contributes their own piece so if one person's missing, you're missing a piece of that puzzle, so it doesn't work the same. It's definitely start together, finish together—that's from the get go. (R2)

Amongst their peers, roopu rangahau found a network of safety, garnered through emotional, cultural, and academic support. Bound together by friendships, it gave them a sense of cohesion and belonging that made the learning possible and contributed to their collective success.

5.3.3 Relationships with tuakana

Relationships established with tuakana were also acknowledged as valuable during the physiotherapy experience. In the university setting, tuakana are students in higher year levels that provide academic and pastoral support to students (teina) in years below. As roopu rangahau shared their stories, it was obvious they held tuakana in high regard and felt more comfortable to approach tuakana for support rather than Pākehā and Tauiwi physiotherapy educators. Already ensconced in the programme, tuakana were considered good sources of relevant contextual knowledge and 'knew the ropes'. They were seen as having essential insider knowledge that was vital to getting through the programme successfully.

Tuakana is defined in te ao Māori as an elder brother or sister or cousin from a more senior branch of the family (Moorfield, 2011). As with the relationship with their peers, similar cultural values formed the foundation of relationships roopu rangahau formed with tuakana; and, in many instances, strong sibling-like bonds were established.

> On hanging out with other Māori students in the years above in the whānau room they reminded me of my older brothers... and they became tuakana for me. When they left [AUT] they would still come and pick us up and go for kai, or come in and help us... so that was the beginning of the [tuakana/teina] relationship. (R5)

Tuakana initiated the formation of study groups made up of Māori students and took on an instructional role to support and guide the teina in their learning journey. Roopu rangahau indicated that the peer support and mentoring offered by tuakana during collective study sessions affected all facets of their lives beyond academics. The contribution tuakana made towards their own personal, cultural, and academic experiences of the programme was significant and meant they were able to navigate the programme and system more easily and with success.

> Having that core group of people that you could have trust and confidence in, when you went out into your profession, whether it be public or private, you had a level of confidence within yourself to be you in those spaces. Because you knew that there were other people like you. But I think, pivotal to forming those relationships, was looking at how they [tuakana] did that…, how did they win the hearts and minds of people that didn't necessarily look like us, talk like us, but created a community or a safe environment where the next down could also flourish. And I think just setting those examples was enough for me to know that that was the standard and precedence to live up to, or to try to hopefully create that environment for the next down. (R5)

Relationships with tuakana lasted well beyond the completion of studies, with many still strongly connected with tuakana to this day. This reflects the strength of these connections, and the significant impact tuakana had on roopu rangahau experiences. Having been gifted the input of someone ahead on the journey, roopu rangahau then carried that responsibility of gifting-on to those who followed. The tuakana role was embedded in what it means to go through the programme. The tuakana/teina relationship is more than just a peer mentoring relationship; through sharing the same values, the strong bonds established provided the foundation for roopu rangahau to thrive.

5.3.4 Relationships with Māori university staff

Many of the stories shared by roopu rangahau reflected deep respect and aroha felt for Māori academic staff. The term 'Māori university staff' refers to Māori physiotherapy educators (academic and clinical staff) and kaiarataki (Māori equity academic, AUT) and support staff, who roopu rangahau came into contact with over the course of their studies. Relationships established with Māori academic staff positively influenced their overall experiences within the programme and university setting.

Māori university staff provided familial support, empathy, and compassion to roopu rangahau, characteristic of support from their whānau. An example of this deep connection is shared in the following.

> She's like the mother of the whānau room but for me she, she's more than just the mother. Yeah, she's the nurturer, she's the carer, she's the person who would do anything for you. (R1)

Often taking the role of kaitiaki (guardians or custodians – protects and looks after students), Māori university staff would provide both academic and pastoral support for Māori students outside of formal physiotherapy education. It was through the ingenuity and encouragement of Māori staff that roopu rangahau were able to participate in a wide range of enriching culturally based social and learning activities; and for many, this strengthened their connections with te ao Māori. Through these additional opportunities, roopu rangahau developed a wider base of support which meant they could easily seek support when needed, engage in their studies in ways important to them, and navigate their way through the programme with confidence. Further, the level of advocacy that Māori university staff offered was considered particularly invaluable. Despite the high value that roopu rangahau placed on these relationships, they expressed concern regarding the low numbers of Māori university staff employed at the university and acknowledged the few opportunities available to interact with Māori staff within academic or clinical environments.

Strong bonds established with Māori university staff have endured beyond their time in the tertiary setting, which further highlights how meaningful these relationships are. When asked what it was that brought them closer to Māori university staff, roopu rangahau agreed that it was the support, kindness, and caring consistently shown to them during their studies. As a result, their mana was uplifted. Being supported, nurtured, and encouraged by Māori staff within the educational environment was considered empowering.

> It's people like whaea [X][38] (in the role of Kaiarataki) who saw value in me when I was an undergrad at that time that really encouraged me along and really made me feel like yeah man this is for me, I've got a lot to give and I'm going to go out there and I'm going to change this whole profession. That's the feeling I had when I left because of people like that. (R6)

[38] To protect the confidentiality of the staff member real names have not been included in quotes.

Māori university staff had a unique skill of connecting with roopu rangahau through the dimensions of holistic well-being. Raising their level of self-confidence gave roopu rangahau the belief they could be successful.

Westernised teaching and learning experiences became more tolerable in the presence of Māori educators. As R3 commented, "*I just kind of get a bit of comfort, or a calmer feeling being in the presence of someone who is Māori*". Roopu rangahau attributed feeling more engaged in the learning environment to Māori educators in physiotherapy who prioritised time to establish relationships with students both inside and outside of the classroom. Roopu rangahau also described learning more than just technical aspects of physiotherapy practice from Māori educators. Offering their cultural expertise, roopu rangahau were able to appreciate what practice looked like through the lens of te ao Māori, adding to their sense of belonging within the profession.

5.3.5 Relationship with Pākehā and Tauiwi physiotherapy educators

Pākehā and Tauiwi physiotherapy educators were also an important part of Māori roopu rangahau support networks. What they valued most were Pākehā and Tauiwi educators who showed an openness to Māori perspectives: "*You gave us the tools to be ourselves and also the confidence to be who we are, and that it's okay to be Māo*ri" (R1). Pākehā and Tauiwi educators who created an educational space that was accepting of Māori views and values gave roopu rangahau the belief that they could succeed as Māori within the educational setting and physiotherapy.

Roopu rangahau noted that some Pākehā and Tauiwi educators were willing to connect with Māori students and extend the learning experience outside of formal physiotherapy educational spaces. Opportunities that enabled roopu rangahau to see a more personal side of Pākehā and Tauiwi educators resulted in the development of personal relationships based on values that were important to them.

> Everyone cared a bit more and they actually do want us to like pass and they want to know your name and know about you and just, get to know you on a bit more of a personal level as well. (R2)

Relationships with Pākehā and Tauiwi educators were usually fostered through cultural events[39] rather than academic settings. For example, events hosted by the University on campus Māori

[39] To support Māori students attending university, events were hosted at the University, throughout the year, by Māori Liaison Services, Office of Māori Advancement & Faculty of Health and Environmental Sciences -Equity Māori, where the main focus was on whakawhanaungatanga – providing opportunities for new Māori students to meet current Māori students and staff.

Liaison Services such as the 'Welcome Back Hāngī[40]' provided opportunities for roopu rangahau to meet and connect with Pākehā and Tauiwi educators. Getting to know each other in less formal educational setting meant that roopu rangahau were able to get to know physiotherapy educators who attended these events.

> Meeting them [Pākehā and Tauiwi educators] over kai like that is really important…. those [staff] who had come to the hāngī obviously showed an interest, so they were the ones we kind of gravitated towards in class… you'd start with the ones you were familiar with and then you'd sort of reach out a bit more. (R2)

A higher level of respect was shown towards Pākehā and Tauiwi educators who were more willing to engage with Māori students and, therefore, considered more approachable. As a result, of the willingness to connect, many of these relationships were sustained over the course of the programme and beyond.

Impact of establishing relationships with Pākehā and Tauiwi educators and impacts on learning

Relationships established with Pākehā and Tauiwi educators outside of physiotherapy education had a flow on effect in terms of levels of engagement within the academic setting. With strengthened relationships based on more neutral footings, hierarchical barriers typical in these spaces became levelled. Educators "*weren't so scary*" (R3); hence, roopu rangahau were more confident to participate and engage within teaching and learning environments.

The connection between roopu rangahau and Pākehā and Tauiwi educators was further strengthened when educators linked teaching and learning opportunities to personal stories and cultural contexts as opposed to westernised ones more commonly referred to within physiotherapy education. Consequently, roopu rangahau felt more affirmed as Māori which positively impacted their level of engagement.

> There were some lecturers that were more open. I suppose it's that relate-ability. When you are more relatable to the people that you're trying to influence you have a bit more success in transferring knowledge. (R5)

Some roopu rangahau found that the closer relationships fostered with Pākehā and Tauiwi educators made it easier for them to connect to the learning experience: "*when you came into the whānau room it felt like we were more than just a bum on a seat in the classroom and inviting you into this space you could see a little bit of us as well*" (R3). Getting to know Pākehā and Tauiwi educators better, roopu rangahau were confident to be themselves, share their

[40] A hāngī is a term to describe a traditional way to cook food in an earth oven using steam and heated rocks (Moorfield, 2011). Offering kai in this instance supports a space for whanaungatanga.

knowledge, and openly seek the support they needed. Becoming more confident to engage and participate in teaching and learning opportunities improved academic achievement and sense of belonging. However, while Pākehā and Tauiwi educators significantly impacted the experiences of roopu rangahau, very few made the effort to engage.

Few Pākehā and Tauiwi physiotherapy educators are open to developing connections

As roopu rangahau shared stories emphasising the positive impact of relationships established with Pākehā and Tauiwi educators, it was noted that very few Pākehā and Tauiwi educators were willing to engage with roopu rangahau on a more personal level. As a result, establishing a connection with some educators was challenging. Had Pākehā and Tauiwi educators prioritised more opportunities to engage with Māori physiotherapy students, roopu rangahau believed that stronger connections would have been made with more educators which would have supported their engagement, particularly in the courses they found more difficult. In response, roopu rangahau became more reliant on their peers, tuakana, or Māori academic staff for the academic support they needed. One roopu rangahau even credited their academic success to their peers: "*I could safely say I probably wouldn't be here in physio if it wasn't for my mates*" (R4). It was the care and support from those they felt closest to that had the greatest impact in terms of their overall success in the programme.

5.4 Theme 2: Sense of place

> The whānau room as a whole has to be one of the biggest highlights, it's just having, that sense of belonging somewhere. I guess you could be you freely, no judgement. (R2)

This second theme explores environments on campus where roopu rangahau congregated and could be their authentic selves. It was in these spaces that the strong connections, so vital to their academic success and holistic well-being, were developed with others who shared similar values and ways of being. This theme discusses the importance of place and the integral relationship 'place' has with sense of belonging within physiotherapy education.

The whānau room

It was in the whānau room, a Māori space on campus, that roopu rangahau predominantly developed meaningful relationships with others, Māori and Pākehā and Tauiwi students and educators. All roopu rangahau involved in this research spent time in this space and to this day it still holds great significance. As the name suggests, the whānau room emulated a whānau atmosphere. Described as a culturally safe haven, many roopu rangahau recounted how they gravitated towards the whānau room because they were treated like whānau*: "in here it feels like home"* (R3). They were also comforted in the knowledge that they always knew where to

find people if they felt isolated: "*when you have got people there you know you feel safe*" (R11). To this end, the whānau room represented much more than a physical building; it was a place of belonging. Many roopu rangahau attributed the whānau room to their success in physiotherapy education. While roopu rangahau noted that not all Māori students engaged in the whānau room, to roopu rangahau this space was a highlight of their physiotherapy journey.

A place of safety

The whānau room was a space that reflected 'being Māori'. Underpinned by mātauranga Māori and tikanga Māori, the whānau room transformed from a physical building into a meaningful culturally safe space where roopu rangahau could express themselves confidently: "*in here you can be who you are and you are accepted and valued and recognised for all of those things*" (R1). They also described the whānau room as a spiritual experience.

> It's more than a whare… it's breathed life for me to be able to have a home away from home and it's not just the four walls but the things that go inside of it. (R1)

Together, roopu rangahau discussed what made the whānau room so special. Key values that were important to them personally formed the foundation of the space. Through these values roopu rangahau were able to connect more deeply with other Māori students, academics, and graduates. Being connected through their culture also helped to establish authentic and meaningful relationships.

> Working with Māori in the whānau room just coming from the same backgrounds, having the same, not necessarily values but maybe same views! Just views on things you know. Those were things that really drew us, together. (R3)

Engaging within a space where they felt connected to and cared for, meant that roopu rangahau were able to live in the fullness of their own worlds without having to compromise their own personal values. It was the people and everything that went on inside this space made the whānau room so special and positively impacted their holistic well-being. A space that gathered and held values, the whānau room was recognised as something precious.

A place of solace

The stories shared by roopu rangahau about the whānau room highlighted the importance of having a space on campus to establish connections with others. As discussed in theme 1, roopu rangahau highly valued the mentorship, support, and guidance provided by Māori academics, tuakana, and their peers. Developing and maintaining these relationships in spaces like the whānau room provided a protective layer of cultural security. This was considered important by

some roopu rangahau who experienced challenges as they transitioned into the westernised based university life.

> The whānau room is more than just the studies...it's that group environment it provides... you're moving away from home, your family and trying to figure out who you are away from them, learning lots of different perspectives and yeah, it's a lot... looking back you're like wow. (R2)

Accessibility of support was crucial. The whānau room provided that space where roopu rangahau could seek others who had similar challenges and could garner the cultural and pastoral support needed to achieve their aspirations.

Whānau room supports academic success

While offering a place of support to roopu rangahau, the whānau room was also a place to study and engage with others in their learning to promote academic success. R3 commented that had it not been for the academic support they received they may not have completed the degree.

> If I hadn't gone to the whānau room I do wonder how would I have gotten through those 4 years. it was a huge part of having that team, um that whānau, that group work was hugely beneficial. (R3)

Having access to more culturally responsive teaching and learning opportunities offered by Māori academics and/or their peers within the whānau room was largely attributed to academic success of roopu rangahau. Known as the tuakana/teina peer mentoring and support system, this concept as a teaching and learning method is described in more detail in a later theme). Congregating in the whānau room created a community base of support that resulted in both personal and academic enhancement. The whānau room provided a platform for ongoing aspirations and achievement that fostered self-belief, belonging, and enabled roopu rangahau to flourish.

A safe space to meet with Pākehā and Tauiwi physiotherapy educators

The whānau room provided the safe space that was needed by roopu rangahau to meet Pākehā and Tauiwi physiotherapy educators. Roopu rangahau felt more comfortable inviting Pākehā and Tauiwi educators into the whānau room as relationships could be established with them in ways more familiar to them.

> In the classroom you know, just as much as we don't know you, you don't know us either so, yeah the fact that you know some of you guys took time away from the classroom and your work to come and you know spend a couple of hours and eat with us, because that's the way we like to build relationships and things is over food and yarning you know, that was like, yeah, that was a really, really cool thing. (R3)

Developing relationships with Pākehā and Tauiwi educators on a more person level resulted in more balanced and reciprocal relationships.

> I feel like from the university standpoint my perspective was there is like a hierarchical system and then when you do get to go back to the whānau room, whaea X, you, matua Y, it's not like you're above us. It has always been we are one it's a unit, we are, you are not higher than me, I'm not lower than you it's always come from a place of we're in this together for one another. (R8)

The whānau room provided a platform for ongoing aspirations and achievement that fostered self-belief, belonging, and enabled roopu rangahau to flourish.

Wairua Māori

At the time of discussing the factors that promoted a culturally safe space, roopu rangahau referred to the notion of 'wairua Māori'. As described earlier, wairua can encompass many things. Wilson et al. (2021) described wairua as a deep sense or feeling that was viewed as a guiding energy likened to one's spirituality. Roopu rangahau agreed that wairua Māori was a difficult concept to articulate. As wairua is something 'felt' rather than seen, there is no equivalent term in English. But in the context of this research, wairua Māori encapsulated a Māori student who was confident in themselves as Māori during their academic journey. To illustrate wairua Māori, it is described in the context of the whānau room.

> For me personally coming into the whānau room and sitting and seeing everyone there it was like, obvious as, that I was in a Māori space [whānau room] and you had Māori people there and there's wairua Māori in the room and like in the people and you could see it everywhere but it doesn't necessarily mean that they were confident in that idea of being Māori. (R6).

Irrespective of the different personal journeys people were on and their connection with te ao Māori, when roopu rangahau were in spaces that felt culturally safe, or were with people they felt safe with, wairau Māori was present.

> A few of my colleagues they were Māori but we talked a lot about that in terms of they didn't feel Māori enough or didn't feel like they had enough information or knowledge or understanding and didn't grow up in that environment… But when they were in the spaces, in the whānau room, they were wairua Māori. They didn't even realise that they were just being them. I watched and observed some things and I was like 'what do you mean you're not Māori enough'? (R1).

Wairua Māori encapsulates a spiritual aspect of being Māori that manifests when Māori students are their authentic selves. Wairua Māori is, therefore, the illumination of this strengthened sense of self.

> I really liked the notion around wairua Māori because you don't have to be like this person or those people… like speak te reo Māori or have to be tikanga full on and do the haka and all that kind of thing to be Māori. But those still finding themselves were operating in the space and in the physio programme or in our classes as wairua Māori. And so I really love that connection…. Because it's about the space, the whānau room was a space that allowed them to experience and to share and learn in a safe space, it's wairua Māori because they were already doing it, they just didn't realise it ...and I really love that whakaaro around that. (R1)

Central to wairua Māori is place and this has been shown by the integral relationship between the whānau room and wairua Māori. Wairua Māori was not referred to by roopu rangahau in spaces outside of the whānau room. Being part of a space where it feels safe to be Māori is critical to thriving. This understanding further strengthens the importance of having spaces led by Māori for Māori students to be Māori during their educational journey.

5.5 Theme 3: Promotion of cultural affirmation

> The concept around cultural affirmation is about being around an environment that re-affirms who you are and enhances who you are. (R5)

Promotion of cultural affirmation is the third theme generated from the *Discovery* phase of appreciative inquiry. Roopu rangahau attributed thriving to being able to express themselves as Māori and feeling supported to be themselves. Feeling affirmed as Māori nurtured their sense of belonging and level of connectedness to the programme.

Māori ways of being

When roopu rangahau discussed experiences that were considered highlights during their physiotherapy journey, many of these were more than just getting a degree. Roopu rangahau are proud of who they are, and proud to be Māori. Experiences where they were able to maintain the wholeness of themselves or were supported to be their authentic selves during their studies were valued highly.

> My culture, my identity..., I don't know where I would be without you know that is like me... I just feel you know I'm so privileged to have the upbringing that I've had and I, forever will, continue to practice the things I've been taught and continue to do the things I do because that's just a part of my life. It's me. (R3)

While many of roopu rangahau had a strong connection to te ao Māori, they were rarely able to express themselves as Māori during their studies. The physiotherapy programme and healthcare environments are largely westernised and not open to other perspectives; subsequently, roopu rangahau did not feel comfortable to share their views "*I had to leave my Māori cloak at the front door*" (R1). Some roopu rangahau described how they hid their identity just so they could meet academic requirements "*in class I would never offer a Māori way of doing things*" (R8). The inability to express oneself speaks to the deeper issues of spaces governed by one dominant perspective.

> I think it's important to acknowledge that we've had a series of intergenerational interruptions that have created differences with exposure to culture and with different levels of understanding and exposure to te ao Māori...I think it's important to acknowledge that portion of the truth. Because it has created that spectrum that we have, but it's also important because it highlights the paradigm that we try to shift from. (R5)

Not all Māori are strongly connected to te ao Māori, as was the case for some of roopu rangahau. Roopu rangahau also spoke about their peers who did not grow up with a strong connection to te ao Māori so did not feel 'Māori enough'. Conversely R3 recalled feeling distressed when their identity was questioned by a non-Māori peer: "*how much Māori are you?*". Māori students are all on a different pathway in terms of their identity as Māori. Pākehā and Tauiwi educators need to be cognisant of this.

> Not everybody in the whānau room was steeped in te ao Māori, some were still on a very beginning journey, middle journey or some were very at you know quite affluent in their position in te ao Māori, so you know it was also a learning journey for all of us in terms of us but it had to start from somewhere and I feel like that being together contributed to laying down a really strong foundation. (R1)

Roopu rangahau stressed that Pākehā and Tauiwi educators needed to be more aware that everyone was on a different journey and, for some, understanding more about who they are is part of their physiotherapy journey. Further, it was important to roopu rangahau that assumptions were not made about Māori students' cultural competency and knowledge. Expectations were sometimes placed on Māori students by educators to provide cultural expertise; for example, pronounce words in te reo or say a karakia. Some roopu rangahau described feeling uncomfortable or shamed because they did not have the knowledge or expertise to meet this expectation. Further, when Pākehā and Tauiwi educators or students did not respect or value Māori worldviews, this adversely affected their sense of identity and belonging.

Opportunities to develop cultural identity.

Te ao Māori was promoted through social and academic activities during the roopu rangahau experience of the wider tertiary experience. Grounded in tikanga and mātauranga, these activities provided a focus on interconnections that reflected the holistic world they had in common. However, these were often based in and around the whānau room, so not part of the physiotherapy programme. While these activities have already been alluded to as integral to establishing relationships, identity was also strengthened. For roopu rangahau strong in their te ao Māori, being able to confidently express themselves and share Māori knowledges and views within spaces like the whānau room was hugely gratifying and linked with success.

> I literally would not have graduated without this space, without this environment, you know there's all these things that contribute. Obviously the course as well but this space was the foundation of me succeeding. If I didn't have these things around me, it's like that holistic Whare Tapa Whā thing, if your mental and spiritual side of things is not in check, then you're over. So, I always put it down to, not just this place but the things surrounding me during those years. (R3)

Some roopu rangahau began their physiotherapy journey with little knowledge about their own cultural identity, including who they are and where they come from. Grounded in tikanga and mātauranga providing a focus on interconnections reflected the holistic world they had in common. Opportunities that strengthen their connection to te Ao Māori (or Maoritanga[41]) were valued. In particular, due to close friendships with Māori peers they were able to connect more strongly to, and extend their connections with, te ao Māori: "*I was so lucky with my year group and the groups of friends and relationships that I've made... they were a big part of me creating and finding my identity*" (R2).

Discovering more about themselves on a personal level while simultaneously undertaking their degree was considered very powerful. Being supported and encouraged to explore and develop their cultural identity was unexpected, but considered meaningful.

> I was trying to study this whole degree, figure out what I wanted in physio but also, finding myself as well and, and connecting with that was, huge. And they [friends] were, part of it all and helping me, you know navigate that journey, definitely privileged to have had that opportunity. (R2)

[41] Māoritanga refers to Māori culture, Māori practices, and beliefs, Māori-ness, Māori way of life (Moorfield, 2011).

When roopu rangahau feel more secure in their identity, they are more confident to engage and participate as Māori within academic spaces. Bringing who you are, and being supported to develop who you are, should be a part of the physiotherapy educational experience.

Sense of belonging

A sense of belonging was important to roopu rangahau, particularly those who had made many sacrifices—financially and personally—to study physiotherapy. However, in most cases a sense of belonging took some time to develop.

> By the end of Year 3 to Year 4, I felt like I belonged in the programme. And why did I feel like that? It was because all of my lecturers. You could see that they saw the potential in me and then they started to tell me. You knew that they were genuine with that because their eyes lit up, their chin, they'd smile from ear to ear and they'd give you a hug…. and say 'man you're awesome'. I never heard that until Year 3. I needed to hear that in Year 2. (R1)

There were many times when some roopu rangahau felt personally challenged during their studies, particularly when navigating the academic and clinical side of the programme. Being able to connect with others in spaces that affirmed their identity meant that they could work through these issues with greater confidence and success. Establishing trusting relationships with Pākehā and Tauiwi educators formed a significant part of the coping strategies.

> When I look back at first year, the things that I suppose made me stay had a lot to do with, it didn't really matter what people said or what they did but it was around how they made you feel. And so, there were certain lecturing staff that you knew, you didn't really want to go and approach. Um and then there were some that were, you were like yeah um definitely come, come and ask for help…there were some lecturers that introduced themselves that gave a bit of a background like yourself um that allowed us to kind of connect with you. So that allowed us to be a bit more open to taking in information. I suppose it's that relate-ability… when you have relate-ability to the people that you're trying to influence, you have a bit more success in transferring knowledge. (R5)

The identities of roopu rangahau are dynamic and continually evolving. When Māori perspectives and values are privileged, many roopu rangahau felt validated as Māori and, consequently, developed a stronger sense of self. For others still exploring their identity, being able to enhance their understanding of who they are was a treasured part of the wider educational journey. Opportunities that support personal growth and cultural development are important to roopu rangahau. As sense of belonging as Māori strengthened within academic and clinical settings, roopu rangahau felt more supported to achieve their aspirations.

5.6 Theme 4: Cultural Pedagogy

> That's just who we are, you work together, you start together, you finish together. Everyone contributes their own piece so if one person's missing, you're missing a piece of that puzzle so it doesn't work the same so it's definitely start together, finish together that's from the get go that's where we were all at. (R2)

This fourth theme highlights teaching and learning methods that attributed to successful academic outcomes for roopu rangahau. The critical components of successful teaching and learning practices were strength based and established on a relational foundation. This theme specifically explores pedagogical approaches that supported engagement and positively impacted roopu rangahau academic, cultural, and holistic well-being.

Reciprocal teaching and learning approaches

The tuakana/teina teaching and learning relationship is a cultural philosophy based in te ao Māori, that represents a traditional pedagogical approach used frequently within Māori teaching and learning educational environments (Glynn et al., 2010). It is a relational and strength-based approach to teaching and learning, resulting in a reciprocal exchange of knowledge between an older person (tuakana) and someone younger (teina). Within the context of the physiotherapy programme the tuakana-teina relationships involve Māori physiotherapy students, either peer to peer or higher and lower year groups; that is, the more experienced supporting the less experienced. Roopu rangahau placed significant value on this approach as a style of learning attributed it to improving educational engagement and academic success. The tuakana/teina teaching and learning relationship was referred to as a mana enhancing approach.

> There was something about their nature that even though they [the tuakana] knew quite a lot, they seemed to always find a way to come to your level. And never make you feel like you were dumb or, they had a way of kind of lifting you up, and it was quite gentle. (R5)

The tuakana-teina model was first initiated by a group of Pasifika and Māori physiotherapy students on the Akoranga campus at AUT, who were enrolled in the physiotherapy programme (some of whom are roopu rangahau in this research). The tuakana/teina relationship naturally evolved in the whānau room where, as friends, they brought together their different strengths and resources. Over time, this concept expanded to supporting students in lower year groups. Due to the success of the tuakana/teina teaching and learning model, this approach is now recognised by the university as a critical tool towards enhancing the academic advancement of

Māori and has become more formalised within the wider tertiary setting where Māori students are now financially recompensed to support Māori students as tuakana.

In theme 1: 'importance of whānau', the personal impact of the relationships established with tuakana on personal growth and holistic well-being was described. This peer-led collective approach to studying was also critical to academic success. With a focus on reciprocity, the tuakana/teina model was regarded by roopu rangahau as an effective way to learn and be successful. Further, the collaborative style was familiar to many of them.

> We were around one of those round tables and they were at the board, and I was just like oh my gosh where have I been this whole time like what have I been up to it was like a light bulb for me and then I just kept coming back. (R3)

Roopu rangahau indicated that the tuakana/teina approach provided them with a completely different learning experience compared to what was offered within the physiotherapy programme, particularly for those who struggled with the more didactic western approach to education.

> It's daunting for me to sit in tutorials. I'm pretty shy. I don't put myself out there like a lot of other people do, and I used to freak out at the thought of being picked out to do something which they did a lot of in the physio school… if there were lecturers that did build that kind of relationship or you felt a bit more comfortable then you'd go oh okay I feel like I can answer questions in this class… but there were specific lecturers where I wouldn't even like put my hand up because I have felt maybe previously, they've picked me out and from that moment that's not someone that I would ever ask questions or anything. (R3)

The rationale for the success of the tuakana/teina method is that it enables the active practice of ako. Ako is a concept in te ao Māori which means to learn and teach, and acknowledges that both teachers and learners bring knowledge to the learning space (Bishop & Berryman, 2009). The concept of ako places anyone within a learning group as the 'teacher'; hence, knowledge, skills, and experiences that everyone brings with them to the learning context is acknowledged. This notion of ako brought about by the tuakana/teina approach was attributed with successful teaching and learning experiences.

Engaging with the tuakana/teina model of teaching and learning resulted in a more positive academic experience for many of the roopu rangahau. With relationships forming the foundation of this experience, coupled with the reciprocal nature that is supported by this approach, roopu rangahau were more confident to share their views and perspectives as Māori within academic and clinical placement environments. Further, working collaboratively with their peers, alongside tuakana, roopu rangahau were more engaged in their learning.

Strength-based approaches to learning

For roopu rangahau strongly connected to te ao Māori, being supported by Māori tuakana was beneficial when academic concepts were particularly challenging. Tuakana who were able to relate teaching and learning to cultural contexts using mātauranga made it easier for roopu rangahau to understand. Describing complex scenarios in this way, roopu rangahau were able to align new knowledge with their own knowledges, experiences, and aspirations. This reflects a strength-based approach to both teaching and learning practices.

> In tutor groups in the whānau room space, you could do things at your own pace from a learning perspective and when I didn't understand something, I'd often ask someone Māori because my first language is te reo. And so sometimes when I didn't quite understand a process, he would explain it to me using examples that I might have gotten and they might be examples in te reo or something in a cultural context or nature so that I could get it. And if I didn't know the answer to something, there was a little bit of shame that came with it like, I didn't know if that was self-pressure or not that I should have known the answer. But I suppose I felt safe enough to ask the boys those questions that I probably didn't have the courage to ask the lecturers about. (R5)

Relational pedagogical approaches to teaching and learning

In most cases, relationships positively influence teaching and learning experiences in physiotherapy education. In theme 1, the relationship roopu rangahau form with others within the programme (peers; tuakana; or Pākehā, Tauiwi, or Māori educators) while shown to impact holistic well-being, also influenced academic achievement. However, roopu rangahau spoke of the challenges they experienced within the physiotherapy academic space when relationships were not prioritised. When roopu rangahau did not connect on a personal level with Pākehā and Tauiwi educators, it made it harder to succeed academically. Consequently, the learning was less effective, and poorer educational outcomes followed. Conversely, when relationships were prioritised within the academic setting, the teaching and learning experiences became more enhanced because roopu rangahau felt more confident to engage and/or ask for support.

Connecting with Pākehā and Tauiwi educators and establishing more balanced relationships is considered an important part of a successful educational journey. Simple processes of engagement, such as pepeha integrated into the academic environments, can make a significant difference to the teaching and learning experience.

> I feel like if, like our tutors, our lecturers gave us a bit about themselves and gave us a little insight into their background because you build connections that way. Like in te ao Māori, generally when we stand up the first thing we say is our pepeha you state 'I'm from here' and then someone else says 'oh I'm from there too' and then afterwards you go 'oh which marae you from? and what's your family's last name?' and then, suddenly you are like related even though you're not related. But you have something in common… those things even though they seem so, minor to somebody those are like really, really important for us to. (R3)

Other culturally responsive practices identified by roopu rangahau included Pākehā and Tauiwi educators pronouncing Māori names or place names correctly. When no effort is made to pronounce names correctly, this caused offence.

> Coming from a te ao Māori background, it's belittling really. It may not seem like it to get someone's name wrong but it's not nice. And people end up settling for names that are not their names and you know often Māori people's names are tūpuna names, so those are names of our ancestors. …If you're mispronouncing these names, these are names of ancestors, these are people that have done all these things for us so it's almost like stomping on their mana. (R3)

Pākehā and Tauiwi educators who engaged in culturally responsive teaching and learning practices created educational spaces that were culturally safe. Within culturally safe spaces within academic environments, roopu rangahau described feeling more confident to participate and contribute to learning activities. Conversely, when roopu rangahau did not feel safe, their experiences within the classroom were negatively impacted. An example was having to remove items of clothing in class in front of their peers (a common practice within practical sessions). Not being given the opportunity to consent to this type of practice was considered inappropriate was considered culturally unsafe educational practice.

> I'm in the labs and we're doing [physiotherapy related practical skills session] and I'm being asked to, I've been told, not asked, to take my clothes off. I was horrified. Everyone told us that you've got to get used to taking your clothes off because that's what physios have to do and you've just got to rip them off. I was saying well that's not happening to me. So my partner and I (who I didn't know either because I never knew anybody, as this is my first lab) we didn't even have a discussion. So 1) I didn't know the people, 2) I didn't want anyone touching me, and 3) I was ashamed of my body… I understand they were trying to do what they were doing but they (Tauiwi educator) took away my mana of being who I was as a person. But also, I was given an ultimatum of you either do what I say or you leave. So, I miss out on the learning opportunity because I chose to leave. I lost the 2 hours of it [physiotherapy related tutorial] and I had to do it with my mates back here in the whānau room. (R1)

Another barrier to learning was experiencing discomfort speaking English in front of the class due to their 'Māori-English' accent[42]. This impacted the ability of roopu rangahau to ask questions or share information with others.

> I would always, keep quiet in tutorials and stuff. I don't know what it was, and I guess it's from my upbringing and coming from a Māori school I was really self-conscious of the way I speak English. That and that's why I never would put my hand up to answer questions. And I, like I would say it to you know some, some of the oh like, I just don't like answering questions because or, or even presentations I don't like presenting in front of, non-Māori because I feel like they're going to judge the way I speak English because yeah no, we as Māori do have our own little way of speaking. (R3)

Lastly the didactic methods of teaching adopted in physiotherapy education were not considered conducive to learning for a variety of reasons. This style of learning did not support the development of relationships leaving roopu rangahau reluctant to interact with educators and other students. Furthermore, sharing of knowledge is not supported through this approach; hence, an imbalance of power continues to persist within these more formalised classroom settings. Feeling less confident to contribute their own views and perspectives, this negatively impacts the teaching and learning experience. Alternatively, approaches, such as tuakana/teina model, create a more balanced approach to the teaching and learning relationship resulting in a more effective teaching and participatory learning experiences.

Culturally based reciprocal, dynamic, relational, and interactive teaching and learning experiences can enhance Māori student level of participation and engagement, positively impacting academic achievement and overall well-being. Additional outcomes are such that the success of the collective is enhanced.

5.7 Theme 5: Aspirational opportunities

> It made me try harder because it wasn't then about you, it was about what you could create for the next generation. (R5)

This fifth and final theme generated from the initial two phases of the appreciative inquiry explores specific opportunities that supported the collective identity of roopu rangahau becoming Māori physiotherapists. This theme describes experiences shared by roopu rangahau

[42] Māori-English has been described as English spoken with a distinctive intonation which is recognised by a high rising terminal intonation pattern, the use of 'eh' at the end of a sentence, and syllables spoken with equal length (Elizabeth Gordon, 'Speech and accent - Variation within New Zealand English', Te Ara -the Encyclopaedia of New Zealand, http://www.TeAra.govt.nz/en/speech-and-accent/page-5 (accessed September 21, 2022).

that reflected values and ideals important to them and brought to life the possibilities and potential of becoming a Māori health professional. Within this theme, the factors that led to roopu rangahau to envision more clearly their role as Māori within physiotherapy and the wider health workforce are identified.

Giving back

For many of the roopu rangahau, the rationale for successfully attaining a degree in physiotherapy was to give back to their whānau; and, in the long term, support the health needs of Māori and their communities. This practice of collectivism is foundational within te ao Māori, where the welfare of the community over an individual is emphasised (Brougham & Haar, 2013). This concept was evidenced by roopu rangahau working together towards a common goal of academic success and showing support for the next generation of Māori physiotherapy students. Giving back to others was considered a part of who they were as Māori "*Our backgrounds as being a Māori and growing up in those lifestyles you're always willing to give*" (R4). Supporting others during their studies gave roopu rangahau a sense of purpose.

The act of giving back was accomplished in many ways. Roopu rangahau own whānau were significant to them during their academic journey. Being successful at university was just as much for their whānau as it was for themselves: "*I am grateful for my parents, we come from humble beginnings, but they never made us feel like we couldn't*" (R5). Paving the way for the next generation was a way in which roopu rangahau could reciprocate the support they had been given from their own whānau.

> What success looks like for me is when I'm in a position where I can give back. Success for me is that whatever I've done, in physio, or in everything else opens the door for my kids, for the next generation to do better than I did. Because that was the path that was laid down for me by my parents, to do better than they did. And so it has to be paid forward. (R5)

Fulfilling their desire to giving back meant that roopu rangahau were able to meet an inherent sense of duty. Doing something, not just for themselves, elevated their sense of well-being and identity as Māori. The meaning of success to roopu rangahau was about the success of the collective, not the individual; hence, being able to give back to others strengthened their sense of cultural connectedness.

Aspirational spaces

The whānau room alluded to in theme 2: 'sense of place', is considered an aspirational space. While there was a collective responsibility to ensure everyone succeeded, roopu rangahau were also inspired by others within that space. Māori students in higher year levels were highly

regarded. Viewed as role models, seeing them graduate and enter the workforce spurred on roopu rangahau to work hard and complete their degree, and even consider the possibility of undertaking postgraduate studies. Roopu rangahau were also inspired by Māori academics, as they opened possibilities in terms of what their future could look like.

Whilst roopu rangahau have already identified the importance of receiving support in times of need, reciprocating this support replenished their own holistic well-being. A part of who they were, it was paramount to look after and provide care to their peers. Many roopu rangahau still support Māori undergraduate students to this day and reciprocate the gift of support offered to them: "*I love physio. I'm just in that space now where I actually love helping individual people but I want to give back, especially to this space. Yeah, without this space I wouldn't be where I am now*" (R4). Giving back to others was a fundamental part of roopu rangahau experiences, not just as a student but beyond.

Staying true to yourself

While roopu rangahau expressed the importance of supporting other students during their studies. This became more critical particularly when Pākehā and Tauiwi educators were not so willing to offer support, or some Pākehā or Tauiwi peers did not share learning resources or teaching notes. This behaviour was considered peculiar as this was not how roopu rangahau operated. With a more unified approach to their physiotherapy studies, roopu rangahau were always supporting their peers towards success. It was through these opportunities that relationships strengthened, which later extended into the workplace. Amongst their peers, roopu rangahau felt supported to stay true to themselves as Māori within educational and healthcare environments.

> Having that, I suppose core group of people that you could have trust and confidence in, when you went out into your profession, whether it be public or private, you had a level of confidence within yourself to be you in those spaces. Because you knew that there were other people like you. But I think, pivotal to forming those relationships, was looking at how they [others] did that… how did they win the hearts and minds of people that didn't necessarily look like us, talk like us, but created a community or a safe environment where, the next down could also flourish. And I think you know just setting those examples was, for me, was enough for me to, to know that that was the standard and precedence to live up to, or try to hopefully create that environment for the next down and that same mentality was taken into the workspaces. (R5)

Engaging with Māori physiotherapy educators and Māori health professionals was also aspirational. With few Māori employed within a westernised health workforce, working alongside Māori, roopu rangahau felt inspired to achieve their degree and contribute towards

health equity. It also heightened their desire to support the next generation of Māori students coming through the programme and strengthen the Māori physiotherapy workforce.

> I think for lots of us [during our time] it was just helping other students out, like going let's bring our space up as we're not well represented in healthcare, we're not well represented wherever we go, let's build that up. Let's be the force of Māori and do it our way like yeah, yeah, yeah. (R4)

Clinical placements and attending to positive health outcomes for Māori and their whānau

Working alongside Māori physiotherapy practitioners was a highlight of the experiences of co-inquirers as students, despite limited opportunities to do so. Further, caring for Māori patients and whānau made clinical placements more meaningful. Such opportunities gave roopu rangahau the incentive to work hard during their studies. The importance of caring for Māori patients on clinical placement was discussed by roopu rangahau as it signalled the importance of Māori health professionals in the health workforce. The delight in this opportunity is expressed by R2: "*I was like wow like that's really cool seeing real life people and I was like oh my gosh we can make these differences. That was really a big highlight*". Another roopu rangahau noted the importance of their role as a Māori health professional.

> To be able to make a contribution to the society or community that I serve in a way that enhances or empowers me because, if it can empower me, it will empower the people I'm trying to motivate and work with. (R1)

Many roopu rangahau felt empowered caring for Māori patients and whānau because they could adopt culturally based practices not typically offered by Pākehā and Tauiwi health professionals. One roopu rangahau described supporting a Māori patient who was considered 'tricky' by a Pākehā and Tauiwi health professional while on clinical placement. The Māori patient only spoke te reo Māori and no one had realised this. Because this roopu rangahau could speak te reo, the treatment offered was in response to the needs of the patient. A sentiment of joy is detected as this story is recounted.

> I left the ward with my supervisor and we were just chatting because it was morning tea and I had a smile ear to ear… I achieved that, and you know she's saying that was fantastic and of course you're getting pumped up. To feel that, that one small contribution of being able to speak my own language, be able to understand what he's saying but also treat him in a way that is dignified for him, my job's done… that empowered me to say this is why I'm going to be a physio, a Māori physio so I can do this… I thought well this is what I struggled my 5 years in this degree for, this is what it's come down to. It's come down to this moment. (R1)

Roopu rangahau also valued working alongside Māori health practitioners as they saw a way of working as a health professional in ways they connected with.

> It's the way he interacted with them.... he went above and beyond you know with patients in how he interacted and followed up with them. You're like this is cool and it related a lot to what we do here and the values and it wasn't just, tick boxy or, or anything like that, you could tell he really cared about the patients and their history, background, where they've come from and you could see that really changed the dynamic and then the results. (R2)

Seeing the impact that Māori health professionals could have on health outcomes for Māori health was powerful.

> It just encouraged me to be like yeah you can make change, your voice can be heard because like I said in physio it's very, these are the inequalities they're there. They need to be improved and I was actually seeing that action in place of them making those changes, changing processes and policies to fit their demographic. So it was, it was really cool to see that you could, you could change the system a bit. You don't have to just follow the status quo. (R2)

Clinical placement was one of few opportunities throughout the degree where roopu rangahau saw a place for Māori in the health workforce. However, when they worked alongside Māori health professionals and educators, these opportunities were inspiring and gave them hope for the future. Roopu rangahau gained insight and confidence regarding their role as a Māori physiotherapist and saw that becoming a Māori physiotherapist could be a reality. However, roopu rangahau were under no illusion that this required a healthcare environment in the future that was open to more diverse ways of providing healthcare and "*doesn't say no, this is not how we do things*" (R5).

Year 4 research

The opportunity for roopu rangahau to undertake research in their last year of the programme was another valued opportunity. For some, this resulted in recognised research outputs that included publications in peer reviewed journals and national physiotherapy conference presentations. For some roopu rangahau, what they valued most was they were able to self-determine what research they did and how. This was empowering. Some roopu rangahau got to work directly alongside researchers in clinical research involving Māori communities. Others described working alongside Māori researchers. These opportunities were relished, as most roopu rangahau never imagined that conducting research was within their capabilities.

> It was an awesome opportunity like to be sitting in the room with all these researchers and all these people with titles! I mean getting the opportunity to go to like conferences, like never would I ever think I would be presenting in a conference. (R3)

Through their involvement alongside Māori communities and Māori supervisors, roopu rangahau were able to envision following a research pathway in the future. This next statement

illustrates roopu rangahau as they come to the realisation that there are opportunities or spaces to be 'Māori' within the context of the physiotherapy programme.

> I saw that I could do it [research involving Māori] in physio school. So I felt like I didn't have to go beyond or outside of physio to actually do things that I cared about... in an environment and a place where I could actually see that I could actually belong. I didn't have to separate going to school and then going home to be who I am. (R5)

Being part of research where outcomes benefited Māori communities provided roopu rangahau another way to give back to Māori in a broader sense. This desire to give back is further re-enforced in this next quote from R5 following a positive research experience with a Māori researcher: "*that's why I always come back. It's because of that I want to give back because of the opportunities I was fortunate enough to have during my time here*".

Even though research opportunities were valued highly, few roopu rangahau were able to partake in research either led by Māori or had a focus on Māori communities. They were aware that minimal research was conducted within the programme in the areas of Māori health or Māori health education, and this was attributed to low numbers of Māori educators/researchers. This was unfortunate as these research[43] opportunities created another vehicle for roopu rangahau to give back to Māori and further strengthen their sense of belonging in the programme and wider profession giving them the courage to aspire to greater things.

Year 1 camp

Opportunities for whole year groups to congregate and get to know each other were cherished by several roopu rangahau. An example was the overnight camp in Year 1 with all physiotherapy students and educators at the start of the programme. At the beginning of their first semester in physiotherapy, all students attended a 2–3-day camp on the edge of Auckland city. At camp, students were involved in team building activities (confidence course activities such as rope climbing etc). Students worked together with other students and educators as they undertook different challenges, as well as participated in some introductory physiotherapy related content. Not all roopu rangahau got to experience camp in their first year, as this activity was deleted from the programme a few years ago due to the financial cost to the university. However, roopu

[43] At the time of writing this thesis, the opportunity for Year 4 physiotherapy students to be actively involved in a research project was removed from the programme. This was due to a new honours programme that is invitation only to top students enrolled in the degree prorgamme. In 2023, only one Māori student was offered a place.

rangahau who did participate, considered camp an in-valuable opportunity to meet other students and start establishing relationships with educators.

> Camp was a team building opportunity for our tutorial group, not even just the Māori students, for everybody. We became a really tight unit from that. We naturally shared all our information, someone had something they'd be like oh here have this I've got this study thing, oh cool, I've got this yeah let's match it up um. And we did that a lot throughout the years. We still kept our connections throughout the years. (R4)

Consequently, relationships established at camp resulted in experiences well beyond those that were most likely intended. Activities that required all students to connect with each other, irrespective of their ethnicity, cemented relationships. P5 said: "*there was no colour in a sense. We were all just people getting to know one another*" (R5). Roopu rangahau believed that all students sense of belonging was potentially strengthened by the camp experience. Feeling more connected, roopu rangahau found it easier to engage in the programme thereafter. Furthermore, feeling acknowledged for who they were, contributed to feeling more valued and safer within the programme.

5.8 Summary

The *Whakawhanaungatanga* and *Discovery* phases of the appreciative inquiry allowed roopu rangahau to relive times of thriving during their experiences of physiotherapy education. The inspirational dialogue that transpired resulted in an appreciation of when roopu rangahau felt most engaged and valued during their time as a physiotherapy student. The themes that have been generated from this are: importance of whānau, sense of place, promotion of cultural affirmation, cultural pedagogy, and aspirational opportunities. These themes interlinked by values important to roopu rangahau provide a unique insight regarding what was valued most during their experiences in the programme. While each theme captures a specific idea, it is strongly evident that the values of whanaungatanga, manaakitanga, aroha, and kotahitanga interweave them. Within each theme a strengthened sense of belonging and connection is shown to be an integral part of thriving. These five themes provide the foundation with which to build physiotherapy into an educational space of thriving. To continue the momentum of this change process, the next step of the inquiry was to identify the *Positive Core*. Bringing together the essence of what has already been discovered, the *Positive Core* begins the process of embracing the possibilities of a different future and turning these into a reality. The core chosen by roopu rangahau to guide transformative change within physiotherapy education is presented next.

Chapter 6 Results: Positive Core

> The positive core makes up the best of an organisation – it's often hidden and a underutilised source – it is the collective strengths and existing assets that help design and build the future (Razzetti, n.d.).

6.1 Introduction

The main aim of this research was to work towards designing and implementing innovative culturally responsive strategies of change within physiotherapy education at AUT. To shift from *Discovery* into transformation requires identification of the *Positive Core*, the facilitator of change. The core was identified as a continuation of the *Discovery* phase, stage two of the research that occurred in the online hui with roopu rangahau. Mauri ora, a concept unique to te ao Māori[44] was identified by roopu rangahau as the *Positive Core* to lead transformation of physiotherapy education into a space of thriving. This chapter provides some rationale for the identification of mauri ora as the *Positive Core*. The concept of mauri ora is then explained from the perspectives of by roopu rangahau within the context of physiotherapy education. Lastly, a framework that positions mauri ora at the core to guide transformation of physiotherapy education is presented.

6.2 Mauri ora – the Positive Core

Enhanced well-being was central to meaningful engagement of roopu rangahau in the programme and their success. Mauri ora, a concept based on an Indigenous perspective, was chosen as it reflects this idea. It encapsulates the peak experiences shared, and was considered appropriate to steer meaningful transformative change with physiotherapy education.

A westernised view of mauri ora is that it is synonymous with an 'enhanced well-being'. From a Māori perspective, the meaning of mauri ora runs deeper (Boasa-Dean, 2019). Referring to mauri ora as the nature of the relationships within the wider environment, Durie (2001) described 'mauri' as the vitality, integrity, and energy that exists within everyone; and 'ora' as one's holistic well-being. He argued that when a person is living confidently, knows themselves, and is striving towards their full potential, their life essence and wairua will flourish, and they will thrive (Durie, 2001). Thus, what we understand from this is that if one's emotional and spiritual well-being is supported, then mauri ora can prevail (Durie, 2021).

[44] In te ao Māori there are different forms of mauri. Additionally, there is no one translation of mauri ora as it holds a number of meanings (Boasa-Dean, 2019).

While mauri ora was considered fundamental to the journey of roopu rangahau, enhanced mauri transpired in different ways, which suggests thriving can be supported in a number of ways. The adaptability of mauri ora, therefore, makes this an optimal and valuable concept as the *Positive Core*.

> Mauri is like your life essence and your life essence can be a contribution of multiple things. This can be different to everyone because your essence is made up of different things compared to other people. So, mauri is a good word as it encompasses all that. (R3)

Like many concepts in te ao Māori, mauri ora can be described in different ways so there is no one translation (T. Pryor, personal communication, November 17, 2023). Due to the empirical nature of mauri ora being 'felt', articulating the meaning of mauri ora proved difficult for roopu rangahau. That said, once mauri ora was agreed to as the core, careful consideration of the meaning of mauri ora was required so that nuances of mauri could be understood from a collective sense, particularly as a foundation to facilitate change within the context of physiotherapy education. By engaging in discussion everyone's understanding of mauri ora was furthered so that the concept of mauri ora, and its role to facilitate transformative change as the *Positive Core*; including the subtleties of mauri ora, could be embedded in the programme in the future. This shared understanding of mauri ora is as follows.

6.2.1 Mauri ora and the physiotherapy journey

Together roopu rangahau discussed mauri ora in general terms and what it meant to each of them. The complexities that come with understanding or defining mauri ora were raised. This next quote represents a collective understanding of mauri ora.

> Mauri is obviously the life essence …And for Māori or for people to be thriving as a people or as a person, their mauri needs to be flourishing. And what contributes to that is improvement in education, improvement in physical activity, improvement in social health, improvement in all those things which leads you back to Te Whare Tapa Whā. I guess you can say that mauri does encompass all of this. (R6)

While a very broad perspective of mauri ora is offered, roopu rangahau were clear that mauri ora was fitting as the core of the physiotherapy education to promote the development of positive relationships and an educational space that facilitates thriving. With the importance of relationships and values that nurture these already highlighted in the *Discovery*, the identification of mauri ora means that the concept of relationality needs to extend throughout the entire physiotherapy journey. Mauri ora further strengthens the importance of Māori students being able to maintain a strengthened sense of belonging and connectedness during

their studies. From the perspectives of roopu rangahau, mauri ora is fundamental to, and underpins, thriving.

6.2.2 Mauri ora and the whānau room

Mauri ora was discussed further by roopu rangahau in contexts specific to physiotherapy education. Next a perspective of mauri ora is offered in relation to space. The whānau room was described in theme 2: 'sense of place', as integral to developing a sense of belonging. Mauri ora is also reflected within the space of the whānau room. Upholding the mauri of multiple cohorts of Māori students, this is what made the whānau room a safe haven for roopu rangahau to be in.

> If you have a look at all of us here today from different generations, the mauri of the whānau room has always been maintained and stayed the same. It's been that exact same place for us that, that place where we could go and be ourselves. It's been our home away from home and it's allowed us to be Māori and all aspects of what being Māori means. Catch up, have a chat, talk crap, have kai, all of the sorts of things that made being at university I suppose less intimidating and more bearable for all of us. (R6).

That said, the whānau room is not just a physical space; mauri transpired within this space because of what it enabled. As R1 said "*it's not the space itself, it's what goes on inside the space that's important*". The mauri of the whānau room was further emphasised in the following by R6.

> Having a space is all well and good but, in that space that's where all of these things like whakawhanaungatanga and wairua Māori are fostered and that's where [students] bloom in that space… You look at the whānau room and all the photos and all the pictures and notes and the people… those are the stories of what's happened in there and those are the stories of that room and how important that room has been for so many people. So I think it's all well and good to have a place but the important part is what's fostered inside by the people inside it… People who have been in that space bring the space to life, they have given the whānau room the mauri that it holds. Hence, with the generations of students who have been in the whānau room, the mauri that is within the whānau room can be maintained. (R6)

This notion that a space holds mauri further highlights the intricacies associated with the concept. Roopu rangahau attributed thriving, in this instance, to a space embodied by values important to them; 'being themselves' within such a space was considered by them as culturally safe. Affirmation of identity and the importance of opportunities that enhance this is captured in theme 3: 'promotion of cultural affirmation'. With strong links between identity and thriving, this 'space' and everything it encapsulates inadvertently supported advancement of roopu rangahau within the more formalised physiotherapy academic spaces. This emphasises how

integral Māori spaces are to thriving. Connecting with others and being supported to express who you are, are critical aspects of Māori student success and retention. Yet, what these findings highlight is that very few spaces outside of the whānau room were regarded by roopu rangahau in the same way; thriving was rarely experienced in academic or clinical spaces. With a strong association between space, identity and thriving, ways in which to enhance these requires careful consideration by educators within physiotherapy education.

6.2.3 Mauri ora and success

The meaning of success was discussed by roopu rangahau during the discussion while considering the potential of mauri ora as the *Positive Core*. Strong parallels were identified between factors that enhanced mauri and promoted success. R4 talked about what success meant to them:

> Success is defined differently for all of us… it's a combination of everything… your mental well-being, your social, your whānau, everything encompassing to give you that core outcome… there's many ways to define it but mauri is the best singular word which enables all of us to define success differently. I think even from my year if we described success, we've all got a little bit of a different spin on it. Even now we've been out a little while it all looks different to all of us and it's forever changing. My success when I graduated to what I see success as now is different... success for me now is to have a better life balance with my kids, my whānau, and work. (R4)

While obtaining a degree was important to roopu rangahau, academic achievement was not the only measure of success. As R1 stated "*success is not getting a piece of paper*". An integral part of roopu rangahau success was the personal journey they shared together. When support was shown towards holistic well-being, academic success followed.

> None of us said the certificate or when I got this grade in a paper, it's all about the whānau room, it was growing as people, it was learning more about yourself and that transition from high school to uni and adulthood life… it's about the full picture. (R2)

Academic success is, therefore, not the only measure of success for roopu rangahau. When academic success is central to the physiotherapy journey this can have dire effects for roopu rangahau. For some roopu rangahau, their mauri suffered during their physiotherapy journey.

> We all define success differently. And what success looks like to me can look completely different to someone else. So I like mauri ora because it does encompass a lot of the words that we do have on the page. Success is just something that I really felt, especially over the last year, not what I thought I was going into university for. When I first went to become a physio it was to become [academically] successful and have that golden ticket for my family but in the end I wasn't looking after the whole whare. And, if I had just

> focussed on that one aspect of my definition of success, I failed in my own eyes because I was chasing something else. (R8)

R8 was not alone. Because the main focus of physiotherapy education was on academic achievement, several roopu rangahau described being led to believe that academic success was the most important outcome. While they tried to uphold these expectations, their holistic well-being suffered. It was because of places like the whānau room and the relationships established with those within this space, roopu rangahau developed the tools to successfully navigate these challenges and achieve their aspirations.

6.3 Consolidating mauri ora as the Positive Core

A holistic view of success differs to the more traditional westernised view of success within physiotherapy education where value is placed on individual achievement. For roopu rangahau, their educational journey was much more than academic achievement. Establishing meaningful relationships, being supported and supporting others, feeling acknowledged for who they are, and achieving their aspirations are all integral to success. When value is placed on these aspects of the physiotherapy journey, academic achievement concurrently strengthens. Becoming a successful Māori physiotherapy graduate is multifactorial, and thriving underpins this.

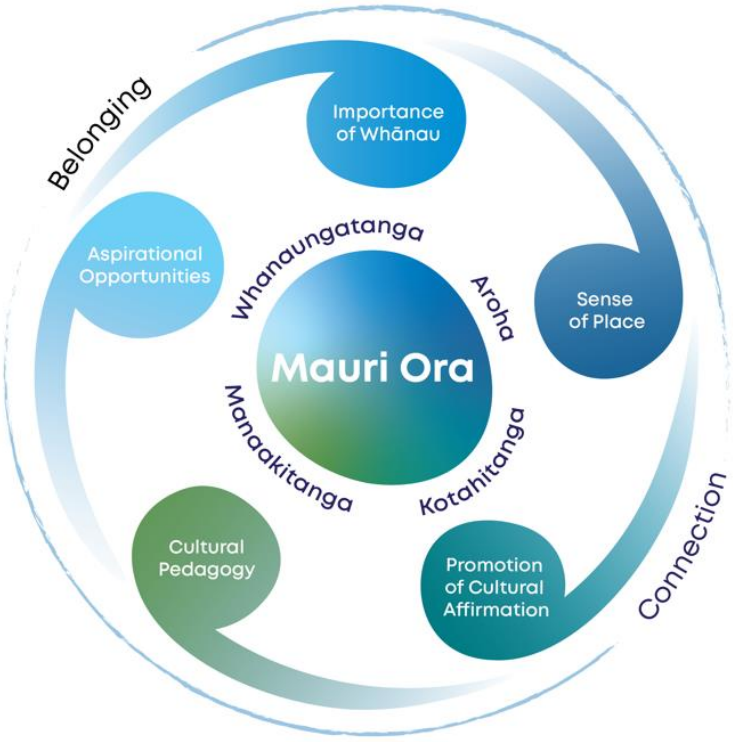
Thriving is fundamental and integral to Māori success in physiotherapy education. Mauri ora, a Māori perspective has been presented by roopu rangahau to represent what it means to thrive. Mauri ora sits at the core of roopu rangahau experiences and relationships with others, encompassing their entire journey. A holistic approach to the educational journey is critical to supporting the retention and success of Māori and all students in the future.

6.4 Centring the themes around the *Positive Core*

Five themes were generated from the *Discovery* phase. Each of these themes offers a unique perspective of what supported roopu rangahau to thrive during their experience of physiotherapy education, and positively influenced their experiences. Framing the views of roopu rangahau are the values of whanaungatanga, manaakitanga, aroha, and kotahitanga; the expression of these values are closely connected to thriving and interlink each theme. The framework illustrated in Figure 16 contextualises Māori perspectives of thriving whereby the five themes are inextricably linked by these shared values. Positioned central in this framework is mauri ora. The themes and values all converge onto this central core that represents an overarching perspective of thriving within physiotherapy education. In addition, mauri ora is the source of inspiration to nurture the future development of physiotherapy education into a space of thriving.

Figure 16

Māori Perspectives of Thriving Within Physiotherapy Education



Note. This framework contextualises roopu rangahau perspectives of mauri ora and what it takes to thrive during physiotherapy education. The koru-shaped elements that represent each theme interlink to give rise to mauri ora, the *Positive Core.* The interlinking is represented by the different colours of each theme merging into a multi-coloured centre piece. Circulating around the core are the values of whanaungatanga, manaakitanga, aroha, and kotahitanga. Positioning the values in this way strengthens the connection between and within each theme and the central of core of mauri ora. The core is irregular in shape to reinforce that mauri ora represents all the different views of roopu rangahau. The irregularity also reflects the adaptability of the concept of mauri ora to support transformation of physiotherapy education in the future. A sense of connection and belonging positioned on the outer rim is integrally connected with mauri ora, and consequently thriving. Illustration created by design students from Good Health Design, AUT.

6.4.1 Summary

In this chapter, mauri ora is presented as the *Positive Core.* The concept of mauri ora within the context of physiotherapy education is described through the perspectives of roopu rangahau. Representing roopu rangahau collective experiences of thriving during their journey through physiotherapy education, as well as the beacon with which to transform physiotherapy education into a space of thriving in the future, mauri ora has been chosen to lead

physiotherapy education towards a space of thriving. Mauri ora and all it encompasses provides the foundation with which to navigate change that may support Māori students in the future to develop meaningful connections and strengthen their sense of belonging. To begin the transformation necessary to achieve this outcome, roopu rangahau were next asked to engage in the *Dream* phase of the appreciative inquiry and dream of an educational space that reflects mauri ora. The findings from the *Dream* phase are presented in the following chapter.

Chapter 7 Results: Dream

Me ka moemoea au, ko au anake
Me ka moemoea e tatau, ka taia e tatau
If I dream, only I achieve
If we dream together, we all achieve. (Te Puea Herangi)

7.1 Introduction

This chapter presents the findings from the *Dream* phase of the appreciative inquiry. This phase extended from the *Discovery* phase and identification of the *Positive Core* in stage two of the research in the online hui with roopu rangahau. During the *Dream* phase, roopu rangahau were invited to envision physiotherapy education in the future where their aspirations are realised, and they are inspired by the possibilities of their futures as a Māori physiotherapist. A process of shared analysis was employed to identify the key factors considered essential to thriving. The key findings that underpinned physiotherapy education as a place of thriving included: a physiotherapy environment that is culturally responsive, Māori students have access to a nurturing kaupapa whānau within a broad community of support, and Māori students are 'seen' for who they are and feel valued. Educational spaces that are culturally safe and all educators engage relational teaching and learning strategies, so all students achieve their aspirations are also envisaged. In this chapter the voicing of the collective dream is shared.

7.2 Voicing the collective dream

In voicing their collective dreams, roopu rangahau were unanimous that for Māori physiotherapy students to thrive, all the facets that contribute to well-being needed to be supported. Roopu rangahau alluded to the Māori model of health, Te Whare Tapa Whā (Durie 1998) to highlight well-being as the culmination of many different facets: "*having a good balance of all those four things is important, if all of those are in check with Te Whare Tapa Whā then you thrive*" (R3). Mauri ora, already agreed to by roopu rangahau as the *Positive Core* of the appreciative inquiry, represents the expected outcome for Māori physiotherapy students during their experience of the programme, and this closely aligns with the concept of Te Whare Tapa Whā. Mauri ora encompassed the many dimensions identified by roopu rangahau in the *Discovery* phase that contributed to their own enhanced well-being, where their own mauri flourished. Although mauri ora represented something different to each roopu rangahau, at the centre of mauri ora is a Māori physiotherapy student who is thriving both academically and holistically. Representing their collective perspectives of thriving, mauri ora provides the basis

for the dreams of roopu rangahau. They dreamed about a physiotherapy programme as a place of thriving, where the experience of Māori physiotherapy students is enhanced. For this to transpire, a flourishing mauri is needed. Figure 17 represents roopu rangahau dreams. Together these dreams represent a shared vision of a te Tiriti honouring educational space.

Figure 17

The Collective Dream of Physiotherapy Education as a Space of Thriving

Note. This picture seeks to encompass some of the many facets shared with me by roopu rangahau that support mauri ora. This chapter was returned to roopu rangahau for affirmation and to prompt ongoing conversation. As such, this voicing of the collective dream is supported by roopu rangahau. Illustration created by students from Good Health Design, AUT.

The main scene depicted in Figure 17 represents a space of thriving. A culturally responsive physiotherapy programme in the future sits within this 'wide open' shared space where importance is placed on relationality, and everyone has a place to stand. Established on a foundation of te Tiriti o Waitangi, there is a collective spirit of respect, unity, and equity. Consequently, the programme holds a vision of optimism for equitable health and well-being for Māori and their whānau. The programme foregrounds Māori views, perspectives, and values. Through the values of whanaungatanga, manaakitanga, aroha, and kotahitanga everyone comes together harmoniously within this one space. Everyone feels welcome and

valued, is cared for, and supported to achieve their aspirations. Moreover, Māori students grow and manifest belonging and a sense of connection, promoting Māori student retention and success.

Within this scene, Māori physiotherapy students are interspersed throughout this shared space. Māori students can be identified because they are wearing a special cloak called a korowai[45]. The korowai is a traditional woven cloak that signifies cultural pride and is often worn as a mantle of prestige and honour (Tamarapa, 2019). In this scene, the korowai represents a strengthened cultural identity; proud of who they are, Māori students bring themselves as Māori to the programme. However, not all Māori students are wearing a korowai. For these Māori students, the image of the korowai represents opportunities that either promote self-expression or assist Māori students to explore their heritage and navigate two worlds as they come to know them better. There are no expectations or assumptions as to what this should look like. In this future programme, Māori students are not just supported as students, but as Māori students, in ways self-determined by them.

In this scene, a community of support surrounds Māori students as they embark on their journey. Known as a kaupapa whānau, this community create a culture of care. It comprises of Māori and Tangata Tiriti (Pākehā and Tauiwi who acknowledge te Tiriti o Waitangi as the founding document of the colonial state of New Zealand) academics, support staff, and leaders. Included in this whānau are members of the physiotherapy community external to the university, who are also committed to and are accountable to creating a space where Māori students are supported to thrive culturally, holistically, and academically.

Pictured within this scene are members of the wider community needing care. With strong aspirations to give back to their own communities, Māori students support whānau and communities by providing holistic approaches to care. They embrace the opportunities to work alongside Māori health professionals and enhance health outcomes for Māori and whānau. Māori students are filled with hope and optimism that one day they too can become leaders of change and make a difference for health outcomes for Māori.

Still within this scene, nestled amongst the trees is a wharenui. This symbolises an Indigenous physiotherapy curriculum brought to life through a culturally responsive pedagogical approach within a space that is culturally affirming. It also is symbolic of culturally affirming teaching and learning environments, and experiences on campus and clinical placement. With Māori views

[45] The term korowai is symbolic of leadership. Korowai are also regarded as a form of protection, and includes the obligation to care for the people and environment (Tamarapa, 2019).

and perspectives acknowledged and valued within educational space, Māori students are highly engaged and motivated. With teaching and learning spaces that are collaborative, supportive, and inspiring, Māori students experience academic and personal success. Led by a visionary team of Māori and non-Māori educators, and leaders in Māori health, all students are equipped to become culturally safe physiotherapy practitioners.

As these individual scenes come together as one, the programme is imbued with mauri. All students are thriving as they share together in meaningful experiences that take them on a journey towards academic success and enhanced holistic well-being.

7.3 The dreams explained

Having strived to articulate the 'whole', I will now explicate the parts that come together to weave the whole, always remembering that each part in itself is not sufficient alone. Mauri ora is about 'everything together'. An outline of roopu rangahau dreams is presented in Figure 18, and described in more detail in text that follows.

Figure 18

Roopu Rangahau Dreams of a Physiotherapy Educational Space That is Thriving

7.3.1 Culturally responsive physiotherapy environment

The responsibility of creating a cultural environment is a shared one. (R5)

The physiotherapy programme is an educational space of thriving. Culturally-informed decision making and practices based on the principles of equity occur at all levels of the programme—from the design of the curriculum to the empowering dynamics within the teaching and learning environments. The programme is led by a diverse community of Māori and Tangata Tiriti who together work in partnership and honour the promises of te Tiriti. This acknowledgement of and, commitment to, te Tiriti is reflected with Māori highly visible in positions of leadership, academic and student support roles. Their wisdom and unique points of view are valued and demonstrated through programme policies, strategies, the curriculum and pedagogical approaches whereby a shared vision of health equity and Māori student advancement is promoted.

A strengthened commitment of being responsive to and advocating for Māori is evidenced through the creation of educational and recreational spaces that supports holistic well-being. Māori students' physical, cultural, emotional, and spiritual well-being are consistently well supported throughout their journey. Māori values that sit at the heart of the programme guide and support this outcome. Whakawhanaungatanga supports meaningful relationships established between students and the wider physiotherapy, university, healthcare communities; of which are nurtured through whanaungatanga, manaakitanga, aroha. Kotahitanga unites everyone with the common goal of Māori students achieving academic success and personal holistic well-being.

While the embodiment of these values creates a space that helps to sustain and affirm Māori, all students enrolled in the programme are supported to thrive. Developing critical consciousness and developing as reflexive and critical thinkers, all new graduates from the programme deliver high quality culturally safe healthcare services that advance the health and well-being of everyone in Aotearoa, and in doing so experience the personal rewards of contributing to social justice.

7.3.2 Kaupapa whānau-community of support

> We want people lifting our spirits, making sure they see you, value you, and encouraging you along. (R8)

In the spirit of kotahitanga (unity) and te Tiriti, the kaupapa whānau are an integral part of, and are committed to, Māori student advancement as Māori. These outcomes are achieved through processes of meaningful engagement.

With the development of the future Māori health workforce a key strategy of the physiotherapy programme, kaupapa whānau provide dedicated support for Māori that promotes Māori student retention and success.

A broad kaupapa whānau is accountable for Māori students' successful journey through the programme. It includes Māori students' peers, kaiarataki, kaiārahi (Māori student support), kaumātua and kuia (Māori elders), Māori physiotherapy graduates, and lastly Māori and Tangata Tiriti physiotherapy educators. Leaders within the programme and wider university faculty, are also part of this whānau, as are physiotherapy practitioners and the physiotherapy professional body. This community of care collectively nurture the well-being of all students, protecting and supporting their academic and holistic development for the duration of their studies and beyond. All kaupapa whānau have a role in supporting Māori students' sense of belonging during their experiences of the programme. Through manaakitanga, intertwined with whanaungatanga, authentic connections are fostered that support and nurture all Māori students to thrive.

Māori kaupapa whānau

With a strong presence of Māori within the kaupapa whānau, the impact on Māori student advancement is significant. In addition to their own whānau, Māori student support, Māori educators and support staff within AUT, and Māori health professionals, who are a key part of Māori students' journey, they also have a direct impact on the direction and development of the programme. Due to their increased awareness and understanding of the challenges Māori students face, these members of the kaupapa whānau are paramount to facilitating culturally safe spaces for Māori students, and guiding the programme so that academic learning

opportunities meet the needs of Māori students and overall aims of health equity. Improved health outcomes for Māori and their communities are strongly supported and advocated for by this group of kaupapa whānau.

Strong connections between Māori staff and students already exist; yet, regular opportunities of whanaungatanga further strengthen authentic engagement. Culturally affirmed, and surrounded by people who they relate and aspire to, Māori students continue to develop a heightened level of engagement and confidence as Māori within the programme. With increased confidence in their own identities, Māori students feel uplifted and valued for who they are and stay true to themselves while navigating their journey through the programme. Feeling encouraged and supported as Māori by Māori that are considered role models, Māori students' aspirations of becoming a Māori health professional and making a difference for health outcomes for their communities in the future are met. Māori kaupapa whānau are critical to students experiencing a strengthened sense of belonging during their physiotherapy journey.

Connecting with whānau

Māori students' own whānau are recognised and valued as a significant part of Māori students' support network within the programme. Whānau are welcomed into the programme and strong connections are established between Māori and Tangata Tiriti programme leaders, educators, support staff, and whānau through regular opportunities to engage at all stages of Māori students' journey. Invited to contribute to the design, development, and delivery of the physiotherapy curriculum, the contribution of whānau significantly enhances Māori student experience within physiotherapy and, physiotherapy education that is responsive to Māori.

Kaiārahi – Māori student support

Kaiārahi[46] are part of the kaupapa whānau connected with the physiotherapy programme. Well-regarded Māori members of the wider community, kaiārahi are an integral part of the programme, with a special role focused on advocating for Māori students as they navigate the programme and university experience. Through sharing wisdom and offering holistic support, Māori students develop courage to bring 'who they are' as Māori to teaching and learning environments. Due to these special supportive relationships, Māori succeed as Māori within the programme and beyond.

[46] Kaiārahi is described by Moorfield (2011) as a leader, mentor, guide; however, the co-inquirers saw a kaiārahi as more than this in the space of physiotherapy education.

Māori graduates of physiotherapy education

A strong relational thread exists between Māori physiotherapy students, graduates of the programme, and the future generation of Māori students. Māori graduates are welcomed back into the programme. They form an integral part of the community of support for Māori students and are acknowledged for their significant contribution towards Māori student success. Māori graduates continue to provide mentorship to Māori students as they navigate the university experience and are invited to contribute their expertise to academic and clinical environments. Not only do they support Māori student academic success but they bring their clinical and expertise as Māori physiotherapists to these environments for the benefit of all students. As a result this brings satisfaction to Māori graduates. Giving back to others brings more meaning to their roles, and this is a positive factor towards the retention of Māori physiotherapists within the health workforce.

Māori educators

The physiotherapy programme are committed to developing an education workforce that is representative and responsive to Māori, and a sustainable Māori academic workforce for the future. Māori academics are an integral part of the kaupapa whānau so are well placed to provide both cultural and academic support to Māori students. Positioned within academic and clinical settings, there are multiple opportunities for Māori students to engage directly with Māori educators, strengthen relationships, and receive the support and guidance that is needed.

Māori educators also have a significant role in the design, development, and delivery of the programme. Through the integration of mātauranga and te ao Māori, all students are supported in the provision of culturally safe healthcare that meets the health needs of the broader Māori community and contributes to health equity. In terms of the delivery of the physiotherapy curriculum, Māori educators utilise cultural pedagogical approaches that engage all students in their learning. Through this, Māori students' connection to, and sense of belonging within, the programme is enhanced. With the support of Māori educators, Māori students are more confident to participate and engage within the programme as Māori, which has a significant influence on Māori students' holistic well-being and positive ramifications in terms of academic outcomes. Interactions with Māori educators also cements their place as Māori within the physiotherapy profession. Through their interactions with Māori educators, Māori students are inspired to become Māori health practitioners.

Tangata Tiriti physiotherapy educators

Tangata Tiriti physiotherapy educators are also part of the kaupapa whānau, and have a critical role in Māori student retention and success. Undergoing reiterative processes of critical and continuous reflection themselves, Tangata Tiriti educators are more open to Māori perspectives and ways of being. This understanding is reflected by a stronger focus on Māori student advancement and culturally affirming and sustaining educational practices adopted within the programme.

Tangata Tiriti educators contribute to Māori student success by creating educational spaces that are culturally safe. This is achieved by prioritising whakawhanaungatanga at the beginning of students physiotherapy journey, and facilitate opportunities to engage in whanaungatanga regularly during and outside of formal class time. As a result of establishing meaningful relationships with Māori students balanced relationships in terms of power dynamics are strongly evident. Māori students are more confident to share their knowledges within formal spaces of physiotherapy education and engage fully in learning experiences. With an increased understanding of Māori students in terms of academic performance, and aspirations, educators put strategies in place that enhance the progress of Māori students and achieve their goals. Relationality underpins Tangata Tiriti educators' educational practice. Māori students now seek support from Tangata Tiriti educators when needed. Being able to express their perspectives and opinions with confidence with Tangata Tiriti educators within academic and non-academic educational settings, supports thriving and sense of belonging. Through the provision of culturally integrated pastoral and academic support to Māori students, the mana of Māori students is uplifted.

Lastly, Tangata Tiriti educators are dedicated towards outcomes of health equity, and this is evidenced by their engagement with Māori in terms of the design, development, and delivery of the curriculum to meet these aims. Additionally, through role modelling culturally safe behaviour within academic and clinical settings, all students grow in their understanding of, and learn to engage in, culturally safe practice.

7.3.3 Being 'seen' for who you are and feeling valued

> That want just to be able to be yourself, both on the inside and on the outside. So there was no, separation between who you are, in your own space and who you are to the world, it's one in the same...living who you are out loud. (R5)

Māori physiotherapy students are thriving as they journey through the physiotherapy programme. Within an environment underpinned by Māori values and principles that upholds their ways of being, Māori students feel understood and valued for who they are, and what they bring to the learning environment. With the integration of practices that affirm Māori identity, Māori students bring themselves as Māori to the learning environments, and interact in ways that legitimise who they are, and how they make sense of the world. Subsequently, Māori students have a strong sense of belonging to the programme.

Culturally based opportunities informed by tikanga are offered by the university environment, and the programme supports and values Māori students' cultural identity. The programme regularly facilitates opportunities outside of formal educational spaces, which includes celebrating Māori cultural events (e.g. Māori celebration of graduation) together as a wider whānau. Because whanaungatanga is supported in this way, cultural identity is promoted further.

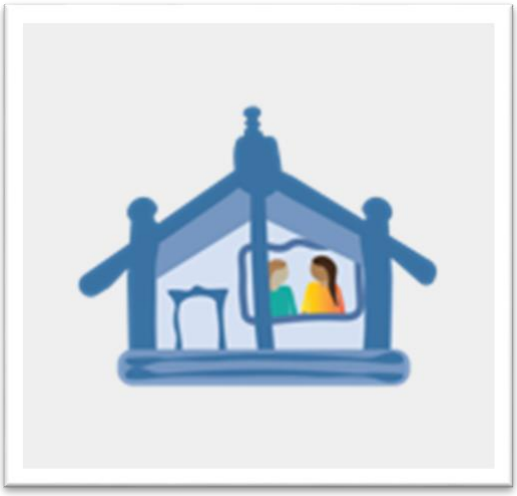
With a strong focus of Māori health and health equity within the curriculum, Māori students see their place as Māori within the profession. This potential to make a difference for Māori within healthcare settings is reinforced through opportunities to observe and work alongside Māori and non-Māori practitioners who are strong advocates for Māori health equity. Learning knowledge and skills in culturally affirming ways is empowering; Māori students are inspired when they can see they can stay true to themselves as Māori physiotherapists, providing motivation for success. Furthermore, envisioning the physiotherapy profession as a space of belonging supports Māori students to transition into the health workforce.

Supported to be themselves within physiotherapy educational and healthcare environments, Māori students see that Māori physiotherapists are valued and respected health professionals.

With growing confidence that they can become Māori physiotherapists, they aspire to be future Māori leaders in health and agents of change.

7.3.4 Culturally safe educational spaces

> It is important to have the right people in the right places when it comes to influence and exposure to cultural perspectives and... to be listened to and heard. Being taught in a way that's respectful of someone's cultural values is key. (R5)



In the dreams of roopu rangahau dreams, culturally safe academic and clinical spaces are represented by a wharenui; these are integral to Māori student retention and success. Within the wharenui, Māori students are thriving academically as Māori. Some of the wharenui are Māori only spaces. It is important for Māori students to have spaced where they receive the cultural nourishment and support they need, and as well as a place to celebrate who they are as Māori. When with others of like-mindedness, their mauri is replenished.

Academic spaces are also deemed cultural safe by Māori students. Within these spaces Māori students are self-assured, highly engaged, and motivated to achieve dreams and aspirations. Whakawhanaungatanga forms the basis of culturally safe teaching and learning spaces, whereby opportunities to build relationships built on trust and reciprocity are prioritised.

Tangata Tiriti educators' are committed to facilitating teaching and learning opportunities that are open to everyone's views and perspectives, and creating spaces where everyone feels welcome. Engaging in culturally based academic experiences also strengthens Tangata Tiriti educators' connection to and understanding of with te ao Māori, which enriches their knowledge base and teaching practices. Consequently, regular opportunities to engage with Māori students, supported by culturally based activities are facilitated within the programme (e.g., Matariki and Waitangi celebrations, welcome back hāngī). Attending these strengthen connections with Māori students and their whānau, further promoting Māori student engagement within academic spaces. As Māori students now look to Tangata Tiriti educators for guidance and support, their journey towards success advances.

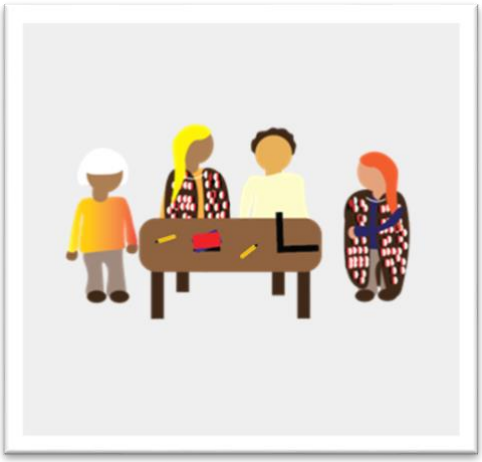
Engagement in culturally based academic opportunities within the academic setting also strengthens Māori students' connection with te ao Māori, which enriches their own personal knowledge base and the delivery of culturally based physiotherapy practice. Feeling empowered within these academic spaces of teaching and learning, and their mana and cultural identity sustained, Māori students engage more confidently as Māori within the learning environment. Feeling valued for what they bring to the learning experience, the experiences of Māori are significantly enhanced both in terms of academic success and holistic well-being.

Collaborative design and development of the physiotherapy curriculum that reflects a Māori worldview

Western and Māori worldviews and knowledges are interwoven into the curriculum supporting the overarching vision of health equity. Contributions sought from Māori staff; Māori students, past and present; along with key groups including whānau, local hapū, iwi, Māori health providers, and Tae Ora Tinana (the Māori partner of Physiotherapy New Zealand) has resulted in an enriched curriculum that now aligns with educational and health sectors, professional polices and strategy documents, and expected educational (Māori student retention and success) and health (health equity) outcomes that include visions of AUT and the Crown, the physiotherapy profession and Aotearoa's health system. Due to the collaborative design and development of the curriculum, the inclusion of mātauranga ensures te ao Māori is positioned prominently within the realm of physiotherapy practice and affirms all ways of knowing and being as legitimate. As a result, an openness towards culturally diverse ways of physiotherapy practice is reflected, so that the needs of all communities within Aotearoa can be met. Subsequently, all physiotherapy graduates meet all relevant physiotherapy practice competencies that relate to culturally safe practice and engage in culturally safe physiotherapy practice supporting outcomes of health equity.

7.3.5 Relational teaching and learning strategies

> All I want is to be accepted, to be acknowledged, to feel valued in the classroom. (R1)



Within the culturally safe spaces of the wharenui, culturally responsive teaching and learning strategies are adopted to deliver the curriculum. At the foundation of these is the concept of ako. Māori highly value the pedagogical approach of ako, a reciprocal teaching and learning relationship where students are supported to be both teacher (Kaiako) and learner (ākonga) (Bishop & Berryman, 2009). Ako creates an opportunity for Māori students to bring their knowledges and values to the educational setting. Whakawhanaungatanga is fundamental to the success of ako, and through the relational atmosphere that transpires within teaching and learning spaces, this results in a safe space for all students to make meaningful connections between their own knowledges and the present learning environment. Familiar with this concept of ako, Māori students more readily contribute their te ao Māori perspectives with confidence. Garnering respect from their peers and educators as they share their knowledges, Māori students' self-esteem is elevated, and positively influences engagement and participation. Additionally, Pākehā and Tauiwi students benefit from the addition of new knowledge different to their own. Through ako, Tangata Tiriti educators develop a greater understanding of te ao Māori and the relationship it has to physiotherapy practice and health equity within healthcare settings. Through this co-creation of new knowledge, the vision of health equity is strengthened. Ako promotes sharing and connecting knowledges in meaningful ways, and brings about an enriching experience for everyone.

Wānanga and tuakana/teina approaches to teaching and learning also familiar to Māori students are embraced by Tangata Tiriti educators in learning environments, supporting student engagement and the sharing of knowledge. Wānanga[47], a process that supports sharing and reflecting, aligns with the tuakana/teina model of teaching and learning, and provides a means for Māori physiotherapy students to integrate their views and perspectives within the classroom setting. Characterised by teaching and research opportunities that maintain, advance, and

[47] Barlow (1991) referred to the 'baskets of knowledge' and their link with wānanga. Māori consider the baskets of knowledge to hold the knowledge obtained for mankind by the god Tāne.

disseminate knowledge, and develops intellectual independence (Pounamu, n.d.), wānanga is a vehicle with which to create new knowledge. These culturally responsive approaches also promote the extension of learning relationships outside of the classroom through the creation of peer support systems and student-led group teaching and learning methods. Strong communities of learning widen all students base of support which is another facet foundational to academic success and personal well-being.

The community within the classroom

The physiotherapy programme values, validates, and includes diverse cultural practices in students' learning experiences. Within the wharenui an array of educators and support people contribute to the delivery of the curriculum. While Māori and Tangata Tiriti physiotherapy educators lead the physiotherapy course, the student learning experience is supported by kaupapa whānau as a collective. Māori allied health professionals, nurses, and doctors, as well as members of the community form part of an inspirational teaching team. Through a more integrated approach to teaching and learning, a variety of experiences, perspectives, knowledge, and skills are offered throughout the programme. Subsequently, the next generation of physiotherapists are more motivated and better prepared to contribute effectively to the advancement of health equity. As relationships between students and educators are supported to prosper, the effectiveness of collaborative innovative approaches to teaching and learning are enhanced, further promoting high levels of student motivation and engagement.

7.3.6 Aspirational

> If I am going to do something it needs to be something to do with our people. (R3)

The future physiotherapy programme is an aspirational environment for Māori students academically, culturally, and holistically. When all of the above are woven together, Māori students are appropriately supported, feel valued for who they are, and are supported to achieve their aspirations. Fundamental to achieving this outcome is a programme that values and privileges Māori ways of knowing and practice in all areas of the physiotherapy journey.

7.3.7 Summary

Roopu rangahau were asked to dream of physiotherapy education as a space of thriving. Many factors contribute to thriving and when these are enabled within the educational environment mauri is enhanced. Roopu rangahau envisioned 'being seen' and valued for who they are within a culturally responsive physiotherapy programme; and are supported by a nurturing kaupapa whānau. Physiotherapy education occurs within culturally safe educational spaces, led by Māori and Tangata Tiriti educators supported by a kaupapa whānau who together engage in relational teaching and learning strategies. Overall, Māori student experiences are aspirational. Relationships, considered fundamental to overall well-being, weave the dreams of roopu rangahau together. When the promises of te Tiriti promised are honoured, a foundation that supports everyone to thrive is created. It is this that impacts Māori retention and success. In turn, the health equity for Māori is achieved. A place of thriving has benefits for many. In the chapter that follows, roopu rangahau identify how to turn these dreams into reality; this phase is known as the *Design* phase of the appreciative inquiry.

Chapter 8 Results: Design

He rau ringa e oti ai

Many hands make light work. (author unknown)

8.1 Introduction

This chapter outlines the findings from the *Design* phase of the appreciative inquiry. The *Design* phase is a continuation of the *Discovery* and *Dream* phases conducted alongside roopu rangahau, stage two of the research process. This was the last stage of the appreciative inquiry addressed with roopu rangahau during the online hui. With the purpose of transforming physiotherapy education that is reflective of the previous *Discovery* (the 'best of what is') and *Dream* phases ('what might be'), and guided by the *Positive Core* of mauri ora, the aim of the *Design* phase was to identify strategies for change and co-construct a plan for transformative change within physiotherapy education that represents a model of best practice for physiotherapy education in the future.

8.2 Facilitating the Design phase

To meet the expected outcome of the *Design* phase, it was necessary for roopu rangahau to identify elements that, together, could create a pathway with which the dreams and aspirations of the future generation of Māori physiotherapy students could be realised. Once identified, these elements were developed into 'priority statements'; these statements are the blueprint for transformative change. Adoption of these will transform the physiotherapy programme into a space of thriving. The success of the *Design* phase is therefore reliant on the collective coming together and agreeing on what the important next steps are, followed by the identification of key priority statements that reflect the aspirations offered by roopu rangahau.

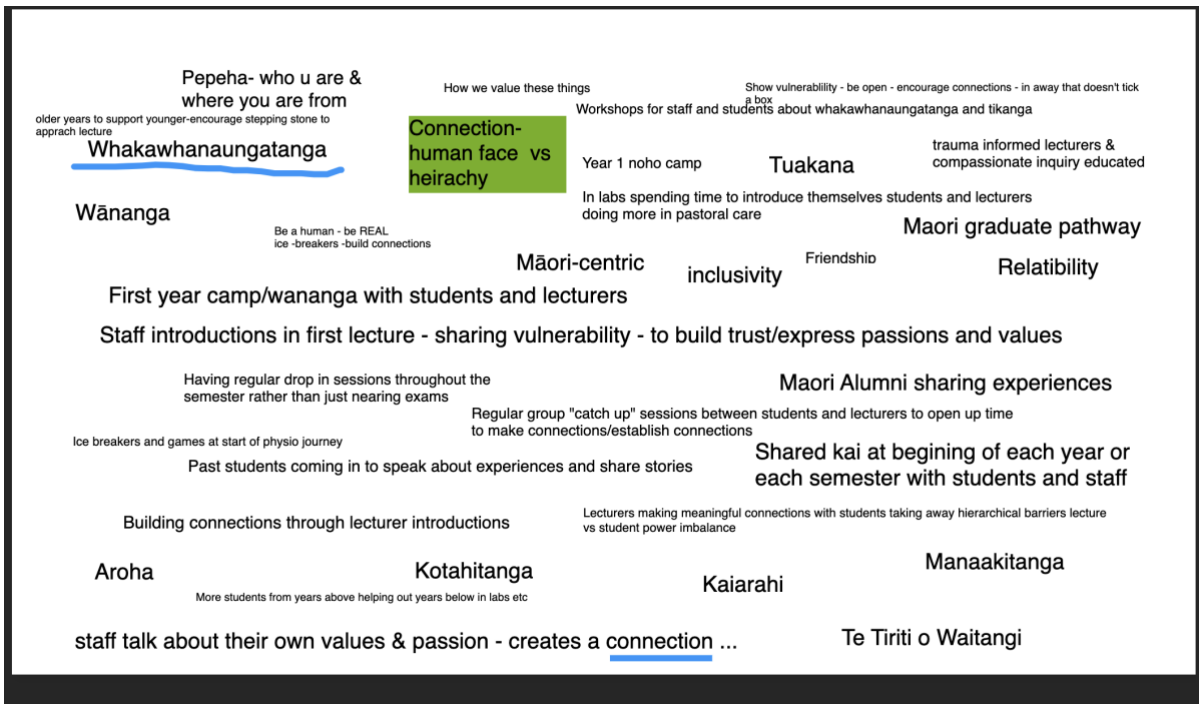
8.3 The collective dreams

To begin the process of identifying priority statements, roopu rangahau were asked to point out pragmatic ways with which the physiotherapy programme could be developed into a space of thriving and enable future generations of Māori physiotherapy students to achieve their dreams and aspirations. Roopu rangahau were asked to position mauri ora, identified earlier as the *Positive Core* (refer Chapter 7), as the basis of their thoughts and ideas; mauri ora is the foundation with which to navigate change from, and guides the direction of change the programme needs to grow towards. A screen shot of the virtual white board is presented in

Figure 19 that captures roopu rangahau initial thoughts and suggestions pertaining to how mauri ora could be fostered within the programme.

Figure 19

Māori Roopu rangahau Ideas Regarding How to Achieve Their Collective Dreams



Note. This screen shot of data was taken off an interactive white board during the online hui, stage two of the research.

8.4 Priority statements: Achieving mauri ora

Table 3, below, presents 10 priority statements. These were initially identified by roopu rangahau during the *Design* phase and later refined in the feedback hui. These statements represent how the future programme can be transformed to enhance the mauri ora of future generations of Māori physiotherapy students and transform physiotherapy education into a space of thriving. The values of whanaungatanga, manaakitanga, aroha, and kotahitanga are highlighted alongside the priority statements, as roopu rangahau felt that, together, these values would support more meaningful outcomes of change. With these core values embodied within the programme, the well-being of everyone can be enhanced, resulting in thriving.

Table 3

Priority Statements Underpinned by Core Māori Values That Will Transform Physiotherapy Education into a Space of Thriving

Core values	Priority statements
	1. The core values of whanaungatanga, aroha, manaakitanga, and kotahitanga are embedded and 'lived' within the physiotherapy programme • Staff attend workshops to engage with a deeper understanding of what these values mean 2. All staff prioritise building meaningful relationships with Māori students • Share something of themselves both in lectures and tutorials 3. Regular opportunities are created for students and staff to engage • Formal and informal 4. Past Māori students (Alumni) are invited to speak about their experiences and share stories with Māori undergraduate students 5. Māori students from year above (tuakana) are involved with physiotherapy tutorials /labs • To create relationships with students • To encourage stepping stone for students to connect with lecturers 6. Employment of Māori staff 7. Physiotherapy department to support students through Kaiārahi who will act as champions for students 8. All students undertake hauora Māori papers within the physiotherapy degree 9. Te Tiriti o Waitangi is embedded within the programme and curriculum 10. Faculty and department leadership will support transformational change within the physiotherapy programme
Whanaungatanga	
Aroha	
Manaakitanga	
Kotahitanga	

Note. These priority statements were initially co-constructed in the *Design* phase and further refined during a feedback hui.

8.5 Summary

The *Design* phase led to the development of solutions and recommendations of change that will guide the future development of the physiotherapy programme into a space of thriving. Led by Māori, these priority statements promote of a new model for best practice within the physiotherapy programme that is focused on Māori recruitment, retention, and success; and will inspire the futures of the next generations of Māori physiotherapy students. The next task will be to implement this model within the physiotherapy programme. This outcome can be supported by engaging in the *Destiny* phase of the inquiry and this is described in the following chapter.

Chapter 9 Results: Pre-Destiny

Ehara taku toa i te toa takitahi
Engari he toa takitini
My strength is not as an individual but as a collective. (Alsop & Kupenga, 2016)

9.1 Introduction

The purpose of the *Destiny* phase, the final phase of the appreciative inquiry is to put a plan in place to action the priority statements outlined in the *Design* phase results section (Chapter 9) and transform physiotherapy education into a space of thriving. Effective and sustained culturally-based transformative change within physiotherapy education will require collaboration between roopu rangahau and physiotherapy educators to ensure any change that is implemented remains responsive to the views and perspectives of roopu rangahau who have contributed to these recommendations of change.

All physiotherapy educators will have a key role in implementing the priority statements resulting in positive change within the programme. To support the success of this change process, Pākehā and Tauiwi physiotherapy educators were invited to attend a '*pre-Destiny*' phase, the third and final stage three of the research presented in this thesis. A unique addition to the appreciative inquiry process, the *pre-Destiny* phase was put in place to prepare Pākehā and Tauiwi physiotherapy educators for the final phase of the inquiry, the *Destiny* phase (still to occur following the submission of this thesis). The intention of the *Destiny* phase will be to include roopu rangahau and other relevant 'change makers' associated with physiotherapy education within and external to AUT to begin the process of transformation.

The main aim of this preparatory or *pre-Destiny* phase was to explore and support the 'readiness' of Pākehā and Tauiwi physiotherapy educators to work together alongside roopu rangahau within a shared space in the *Destiny* phase, and further their understanding of the recommendations identified for transformative change within the programme. To achieve these outcomes, educators were exposed to the cultural processes that would likely be engaged with when together with roopu rangahau, so respectful and collegial conversations with roopu rangahau could be enabled. In this pre-Destiny phase, the rationale for the earlier stages of the appreciative inquiry held with roopu rangahau were also outlined, with some initial findings presented to support further discussion with educators. Detailing some of the recommended changes was important so educators had some awareness of and rationale for the

recommendations that had already been made (refer to the previous chapter, the results of the *Design* phase).

A second aim of this pre-Destiny phase was to action the first priority statement identified in the *Design* phase (for the full list of priority statements see Chapter 8, Section 8.4). This statement devised by roopu rangahau is directed principally at physiotherapy educators for them to understand and embed core Māori values within the physiotherapy programme. One strategy suggested by roopu rangahau was for physiotherapy educators to attend workshops and engage in processes that foster a deeper understanding of these values. During this *Pre-Destiny* hui, this outcome was met by describing my own experiences of building trusting and meaningful relationships with Māori within this cross-cultural research space. To follow, the same processes that were engaged with roopu rangahau in the earlier hui (or phases) were role modelled by myself, so educators got to experience a process of 'intentional' whanaungatanga. Even though we were colleagues, time was purposely prioritised for everyone to connect with each other on a deeper level, within the space of the research.

In this chapter, the main outcomes from the pre-*Destiny* phase that occurred solely with Pākehā and Tauiwi physiotherapy educators are presented. Due to ethical constraints, the voices of Pākehā and Tauiwi physiotherapy educators cannot be shared. These constraints are related to the fact that I am an insider located within this research and the educators are my colleagues. As I did not wish to compromise my relationship with my colleagues, the findings presented in this chapter are a collective representation of educator views.

9.2 Outcome of the pre-*Destiny* phase

Seven Pākehā and Tauiwi physiotherapy educators attended the pre-*Destiny* hui. This number reflects nearly 20% of the total number of Pākehā and Tauiwi educators who teach on the undergraduate physiotherapy programme. Ten percent of educators were not able to come and 70% chose not to respond to the invitation. The format of this kanohi ki te kanohi hui was structured in the same way as previous hui held online. On this occasion, all the proceedings were led by me with approval from the research whānau and roopu rangahau. The hui process was carried out to guide the proceedings, with the rationale for each step of the process explained as we worked through each stage. Undergoing this process created an opportunity for educators to further their understanding of a tikanga based process to support engagement, and experience a meaningful process of connecting for themselves.

A significant part of this hui was dedicated to the process of whanaungatanga to meet the first priority statement. Whanaungatanga was initiated through sharing a personal taonga, as per

the hui with roopu rangahau in stage two. Through championing whanaungatanga, the magic of this process was experienced by educators. Encountering the impact of whanaungatanga was an integral outcome of the hui with educators. Due to the richness of the stories shared alongside their taonga, and the discussions that followed, it was clear the educators gained a deeper appreciation of the importance of whanaungatanga and saw how whanaungatanga can create a safe space to connect and develop meaningful and trusting relationships to support sharing of knowledge. Immediately following this process, the importance of prioritising whanaungatanga within the classroom setting was discussed by the educators, who then highlighted that as a programme we needed to re-consider how we welcomed students within teaching and learning spaces in the future. The process of change had begun.

The next part of the hui was to assess the awareness of the Pākehā and Tauiwi educators of culturally based change or their readiness for the change needed within the spaces they work in. To achieve this, the educators were asked affirming questions regarding what the programme was doing well for Māori students. Findings from roopu rangahau were not shared at this point in time so as not to influence the educators' views. The responses given opened a window into the educators' perspectives and understandings of what they thought they were doing well as educators.

The questions were in keeping with an appreciative inquiry primarily to give the educators a taste of the appreciative inquiry approach. What follows is a synopsis of the discussion that occurred amongst the group generated from the first question asked of the group.

Question 1: *What does the physiotherapy programme currently do well for Māori?*

Answers:

- Educators are warm and friendly
- Whānau room available for Māori students
- Inequities in healthcare is included in curriculum
- Māori perspectives are evident within curriculum and teaching and learning spaces (e.g., use of 'hui process', te reo)
- Culturally responsive support for course/programme development
- Courses have specific assessment criteria related to culturally responsiveness; hence, raises awareness and applicability

Time was limited for lengthy discussion; however, the overall impression is that the educators viewed the physiotherapy programme as supporting Māori students well and they touched on their contribution to Māori student support in terms of pastoral care, curriculum content, and modes of delivery. At the basis of these discussions was that educators are warm and caring, and this is believed to be a key strength of the programme. As with roopu rangahau, the

whānau room on campus was recognised by educators as a valuable space for Māori student support. However, little discussion was facilitated by the educators regarding their contribution to this space in terms of Māori student support. While this space was identified in the *Discovery* phase as a positive factor for Māori students by roopu rangahau, it was evident that few physiotherapy educators connected with Māori students in this space. Māori students do well academically in physiotherapy, but roopu rangahau attributed this success to what the whānau room offered. As the whānau room is a faculty led space, the physiotherapy programme has no input in terms of how it operates, and provides no funding in terms of academic support for Māori students (some funding in the past has been provided for resources in this space; e.g., an up and down plinth). The whānau room, therefore, has no direct relationship with the physiotherapy programme, except that Māori physiotherapy students can attend this space if they choose. In reality, very few physiotherapy educators support Māori students in the whānau room on their own accord. The significant impact that physiotherapy educators can have on the experience of Māori physiotherapy students when they work alongside each other in the whānau room needs further discussion.

The importance of non-Māori students developing or widening their perspectives in terms of health equity was also expressed by the educators, who also believed the programme is enabling of this issue. They spoke of the emphasis on health inequities within the curriculum, where the role of physiotherapists in reducing health equity for Māori is highlighted. Further, efforts adopted by some educators to support Māori views and perspectives within the educational setting, including the use of Māori health models and te reo in teaching and learning opportunities, were also identified. However, recent physiotherapy accreditation reports and research that have specifically explored the cultural responsiveness of the programme indicate that the programme does not adequately meet these requirements in terms of health equity (Wilson, 2021). Additionally, only a small percentage of physiotherapy educators (Māori and Pākehā/Tauiwi) provide culturally responsive physiotherapy education. This demonstrates that significant improvements are needed within the curriculum and its delivery. To facilitate this change, Pākehā and Tauiwi physiotherapy educators will need to undergo a process of critical reflection and recognise the impacts of a largely westernised based programme on Māori student success and come to the realisation that decolonisation of the programme is needed to create a space where everyone can thrive. In the future, professional development that includes opportunities of critical reflection will need to from part of the transformative process so that change is relevant, effective, and sustained.

Amongst this small group of educators, there was a general understanding that normalising Māori perspectives was important within the programme. As opposed to the views of roopu

rangahau presented in the *Discovery* (Chapter 5), these educators believed there was evidence of normalising Māori perspectives in the current curriculum and pedagogy, course descriptors, and assessment criteria. However, these educators also stated that the programme needed to better support Māori student belonging within the programme, and that educators require support themselves to achieve this outcome in the future. While these views indicate a willingness for change, the link between curriculum design and delivery of the physiotherapy curriculum and Māori student belonging has not yet been made. Earlier findings from roopu rangahau show that a relationship exists between culturally based teaching and learning opportunities and enhanced belonging and overall well-being.

The responses to the questions shared by this group of Pākehā and Tauiwi educators indicate that they are invested in the process of cultural change. There is a general understanding that change is needed and that change needs to be more than just a 'tick a box'. They also recognised that meaningful change within the programme will only come about from those who are open to change, are accepting of not knowing, and are willing to do things in a different way. There was a shared understanding amongst the group that critical to effective change was changing their own perspectives. While these were all positive reflections, a level of vulnerability was sensed from some educators. There is a desire to make change; however, it will need to be coupled with support and guidance, which requires careful consideration in terms of facilitating an effective change process. However, due to the eagerness of these educators to engage in this hui and make a positive shift into this cultural space, I took comfort in the fact that there was already an awareness and readiness for change. Further, potential change makers had been identified to support a new direction of culturally based change within physiotherapy education. It is hoped that these educators will be able to support effective transformation change in the *Destiny* phase, the final phase of the inquiry.

9.2.1 Summary

This pre-*Destiny* phase was conducted as a precursor to the final *Destiny* phase of the appreciative inquiry where Māori and all physiotherapy educators and leaders would meet together to initiate transformative change. The key outcome of this pre-*Destiny* phase was to support Pākehā and Tauiwi physiotherapy educators in their knowledge, skills, and understanding of creating and working together with Māori within a relational shared space. With a strong focus on whakawhanaungatanga during this kanohi ki te kanohi hui, the educators experienced 'the magic' of this process of engagement evidence by their willingness to openly share their thoughts with each other regarding the potential of cultural change and what this might look like. Due to the rich discussions prompted by this *pre-Destiny* phase that included

evidence of some deep reflections, I felt confident that the process of change within their own teaching domains had been initiated, irrespective of where they were at in their own journey of cultural change.

This pre-*Destiny* phase provided an opportunity to gauge the readiness of educators to lead in and facilitate transformation within physiotherapy education, and identify what was needed to support the process of change. These outcomes were met coupled with an overall positive response regarding what was to come. By engaging Pākehā and Tauiwi physiotherapy educators in this phase, the process of culturally responsive transformative change within physiotherapy education had been initiated.

For effective and meaningful culturally-based change within physiotherapy however, will require roopu rangahau and physiotherapy educators (Māori, Pākehā and Tauiwi) engaging and collaborating together within a shared space to develop further strategies to action the priority statements and transform physiotherapy education into a space of thriving. Further to this, effective and sustained cultural change will require support from leadership within the physiotherapy department and faculty it sits within, and wider physiotherapy professional community. Hence it will be important to invite people with influence within these aforementioned areas to be part of the *Destiny* phase. In particular, the Head of the Physiotherapy Department is integral to actioning and supporting this change process. Due to a delay in the appointment of this new position, the *Destiny* phase will be continued beyond the completion of this thesis. The findings from the pre-*Destiny* phase, therefore, brings this appreciative inquiry to a close for the time being. Next, the discussion of this thesis is presented.

Chapter 10 Discussion

He waka eke noa

We are all in this together. (author unknown)

10.1 Chapter introduction

The main aim of this research was to guide innovative culturally responsive transformative change within the AUT physiotherapy programme to promote and support future successes of Māori undergraduate physiotherapy students. The key to finding the way forward was, and is, to work alongside Māori with expertise and knowledge in this area. Using a reflective and action-informed process of research, designed in collaboration with Māori research experts, roopu rangahau were enabled to become valuable contributors to, and designers of, a future physiotherapy education programme more inclusive of Māori people, worldviews, and philosophies. Roopu rangahau were aspirational throughout the research process and a radical sense of hope emerged as they imagined the principles of kaupapa Māori being interwoven with Westernised approaches to physiotherapy education. The overall consensus was that a cultural change within physiotherapy education at AUT that reflected this interweaving of views and perspectives required an intentional foundation of relationality.

This concept of relationality captures the essence of this thesis; relationality is the fulcrum around which everything pivots. Relationality forms the core of the research process. It is also at the core of the insights shared by roopu rangahau, with meaningful relationships considered integral to their own journeys. Relationality also forms the basis of recommendations to transform physiotherapy education into an educational space of thriving. Relationality underpins the philosophy of transformative change within physiotherapy education.

This chapter begins by discussing the co-created Māori-centred framework that enabled Māori and Pākehā (myself, the researcher) to work alongside each other. To illustrate the concept of a shared research space, I introduce the metaphor ‘he awa whiria’ (the braided river). He awa whiria represents the integration and reciprocity that can occur when different knowledge streams (systems) intertwine. This is followed by discussing the key insights gleaned from roopu rangahau, and positioning these alongside the existing literature with a view to highlight what and where change is needed for physiotherapy education to be able to move forward and become a place of thriving. The implications related to physiotherapy education, including other physiotherapy and health programmes in Aotearoa, are identified, followed by a discussion of

the strengths and limitations of this research, and potential future research possibilities. Concluding remarks will bring this thesis to a close.

10.1.1 Undertaking cross-cultural research within tertiary health education

This research is one of few conducted in the tertiary health education space to have specifically explored the experiences of Māori with the aim to transform physiotherapy education; and given the dearth of cross-cultural studies in this area (Barnes, 2013; Carpenter & McMurchy-Pilkington, 2008; Chittick et al., 2019; Jones, 2012; Patterson et al., 2017), the current research is unique. The findings from the research add to the limited but growing body of knowledge in terms of culturally responsive transformation of health education. To facilitate such change within physiotherapy education to benefit Māori, required appropriate engagement with Māori with experience to understand what change was needed. The approach adopted in this research to promote meaningful engagement with Māori offers a perspective regarding culturally and ethically safe cross-cultural research conducted alongside Māori.

10.1.2 He awa whiria

The success of meeting the research aims is attributed to the creation of a shared relational research environment guided by te Tiriti for roopu rangahau and myself as Pākehā to engage, where everyone's views and perspectives were valued. Privileging the notion of relationality within the cross-cultural research space is supported by other researchers who identify as Pākehā (Barnes, 2013; Gibbs, 2001; Jones, 2012).

The metaphor he awa whiria (the braided river[48]) represents an Indigenous perspective of the complex and dynamic relationships that exist between western and Māori knowledge systems. Initially inspired by Emeritus Professor Sir Mason Durie, and developed further by Indigenous researchers, he awa whiria promotes the inclusion of bicultural frameworks within research environments that supports the coming together of Māori and westernised knowledge systems or 'streams' where there is sharing of knowledge to instigate change (Cram et al., 2018; Macfarlane & Macfarlane, 2018, 2019; Macfarlane et al., 2015; Martel et al., 2022; Scobie et al., 2021; Trewartha, 2020). Importantly he awa whiria advocates for te Tiriti honouring research practice. That said, he awa whiria illustrates the emergence and centring of Indigenous ways of thinking.

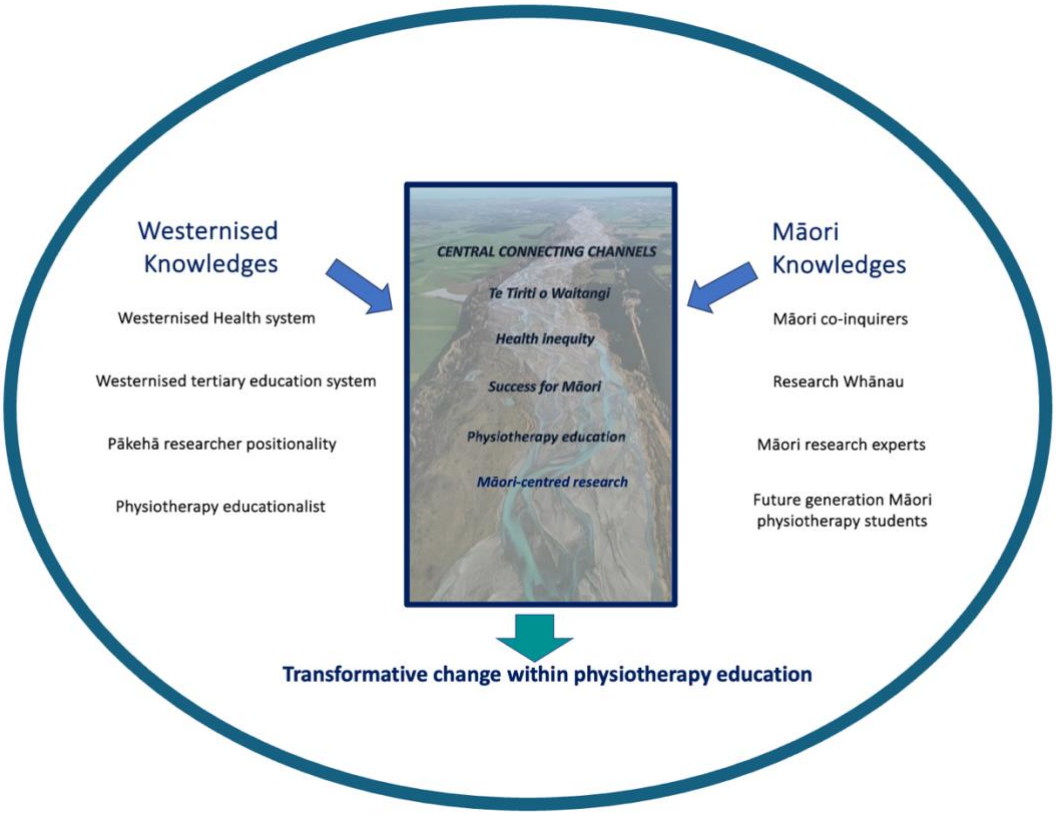
As represented by the concept of he awa whiria, while knowledge streams intertwine, they also move away from each other. This functionality ensures the mana of each knowledge system is

[48] He awa whiria (braided rivers) are unique part of the Canterbury landscape in Te Waipounamu (South Island), Aotearoa.

upheld. After undergoing several reiterative processes of joining then separating, these knowledge streams or systems finally converge for change to be enacted (Cram et al., 2018; Macfarlane & Macfarlane, 2019). A similar idea to the metaphor he awa whiria is reflected in the current research, and is represented in Figure 20. In this illustration of he awa whiria, components of each knowledge system (Māori and Western) that have impacted this research are identified either side of he awa whiria. The centrally positioned intersecting channels supported these knowledge systems towards a point of union.

Figure 20

He Awa Whiria – The Braided River Metaphor



Note. This diagram depicts the two independent streams of knowledge—Māori and westernised—that influenced the research process and outcomes. The blue arrows reflect the process of the two knowledge streams being brought together and connecting, and this action occurs through centralised connecting channels common to each stream. Engaging in a Māori-centred research process was key to promoting the integration of these knowledge systems. The green arrow reflects a point of union that will eventually lead towards an outcome of transformational change within physiotherapy education. To support the understanding of this concept, these ideas are superimposed over an example of he awa whiria (photo[49] credit Jill Caldwell 2021).

[49] This photo is of the Hurunui awa (river) in North Canterbury which forms part of my turangawaewae, my standing place. With a strong personal connection to he awa whiria, it felt fitting to apply the concept of he awa whiria to the research.

10.1.3 A shared research space

To collaborate successfully with Māori through the research process, and come to a point of union, a research framework best suited to the cross-cultural space was designed to privilege the voice of Māori and strengthen collaborative decision making. Resembling the concept of a te whāriki (a woven mat), this Māori-centred framework, co-designed with Māori, guided how co-inquirers worked alongside each other. With te Tiriti as the thread interlinking all components, a shared space for Māori and Pākehā to stand and connect was created. Bridging the benefits of each other's knowledges resulted in rich dialogue and the identification of strategies for change to develop physiotherapy education.

Key to conducting effective research alongside Māori is establishing respectful and trusting relationships. Supporting collaboration with Māori using relational based approaches to promote transformative change beneficial for Māori is strongly advocated for in the literature (Haitana et al., 2020; Hiha, 2016; Jones et al., 2006; Martel et al., 2022; Minton et al., 2022; Smith, 1999; Wilson, 2019). That said, engaging with a research whānau (Māori advisory group) early was a critical part of this research process so that through the design of the framework this outcome could be met. As Pākehā, being critically conscious and reflecting deeply on how these relationships could be upheld was also integral. Meaningful relationships, therefore, formed the heart of this research. Underpinned by the foundations of te Tiriti, the careful interweaving of te whāriki supported collaborative engagement between Māori and Pākehā co-inquirers to co-construct physiotherapy education that represents a space of thriving and advance the aspirations of Māori physiotherapy students.

10.1.4 The appreciative inquiry and initiating change

The research shows that appreciative inquiry is an effective approach to facilitate a process of change self-determined by Māori within physiotherapy education. Engaging in a dialogic process with Māori, in a way that shifted the emphasis from 'what needs fixing' to 'what might be possible' led to a deep and meaningful inquiry. In the educational environment, working alongside Māori has been a popular method to develop a critical understanding of tertiary teaching and learning environments and understand how best to support Māori learners (Airini et al., 2010; Bishop & Berryman, 2009). However, the appreciative inquiry approach has not been undertaken to promote whole programme change in the tertiary setting. As shown in the current research, partnering with Māori and re-considering future directions of physiotherapy education resulted in an effective means to identify strategies for change for the benefit of everyone. Appreciative inquiry created a space where relationships can be upheld, and outcomes of change generated.

Culturally adapted appreciative inquiry

To enhance the outcomes of the appreciative inquiry and strengthen consensual decision making, an additional stage of *Whakawhanaungatanga* was included. This new stage was guided by the hui process, a holistic approach of engagement adopted in both clinical and research settings (Lacey et al., 2011; Pitama et al., 2017). Culturally adapting the approach to the inquiry reinforced the importance of relationality within the research space, further aligning it with the theoretical basis of kaupapa Māori based-research (Smith, 2003; Smith, 1999). The richness of these research findings indicates that roopu rangahau felt appropriately supported throughout the research process. This suggests that a culturally adapted approach to appreciative inquiry can give rise to a culturally safe research space. Had we not prioritised creating a relational space, the nuances associated with the experiences of roopu rangahau may not have emerged. Further, the willingness of roopu rangahau to engage and contribute to a cultural process of change, illustrates how important it was to them to subscribe to the future for the next generation. To this end, the current research has accentuated the values of relationality, unity, and supporting others; values that are also important in te ao Māori. While appreciative inquiry has not been employed previously within the domain physiotherapy education, we have shown it is effective as a change method, as steps for change within physiotherapy education at AUT have been identified. The identification of outcomes of change have been found in other studies done in collaboration with Māori in other areas of education and health using similar approaches to research (Cram, 2010; McNae, 2018).

Appreciative inquiry and power of Māori voice

Privileging the voices of Māori was key to meeting successful research outcomes. During the appreciative inquiry, roopu rangahau conceptualised and co-constructed the AUT physiotherapy programme to induce culturally responsive change within a westernised space that, in the future, will reflect an innovative, contemporary, and te Tiriti-led educational space where everyone can thrive. This illustrates the strength and potential of collaboration with Māori to identify solutions of change. Yet, different perspectives of Māori are still represented within these strategies of change. Enabling the diversity of the group to emerge has resulted in an extensive understanding of what mattered most. From this understanding, shared visions were extrapolated for the future, emphasising the importance of creating a space for all voices to be heard and listened. The importance of Pākehā 'listening' is advocated by both Māori and Pākehā (Beausoleil, 2021; Berryman et al., 2017; Margaret, 2010).

Appreciative inquiry and te Tiriti o Waitangi

Lastly, te whāriki, the Māori-centred framework, created a space for Māori and Pākehā to stand together through the establishment of meaningful relationships and by virtue embodying the

spirit of te Tiriti. This research process models how a Tiriti-led partnership within a cross-research space should and could be. To my knowledge the close relationship that exists between appreciative inquiry and te Tiriti has not been established in earlier studies that have adopted this approach. Further, the notions of te Tiriti are also recognised within he awa whiria, strengthening this concept as an appropriate framework for positioning research within the context of Aotearoa (Bright et al., 2023; Martel et al., 2022; Scobie et al., 2021). Lastly, adopting a collaborative and strengths-based approach to the research process has resulted in the successful creation of an educational space of thriving, so that the next generation of Māori physiotherapy students will be better supported academically and holistically to achieve Māori aspirations. The key insights offered by roopu rangahau are discussed next.

10.2 The power of whanaungatanga

The focus of this research was to explore what supported roopu rangahau to thrive during their experience of physiotherapy education. Further, roopu rangahau were also invited to share their insights regarding what an educational space of thriving might look like in physiotherapy education in the future and identify what change is required to get there.

Through this appreciative inquiry, it was discovered that roopu rangahau faced complex personal and academic challenges throughout their physiotherapy education journey. Feelings of marginalisation and experiences of negative attitudes and racism within academic and clinical environments were not uncommon. At times, the spaces of physiotherapy education felt culturally unsafe, with roopu rangahau reporting that they did not belong, either as a student or within the profession; subsequently impacting their decision to enter the workforce.

Key to thriving included the relationships established with their peers and Māori and Pākehā/Tauiwi university staff. Roopu rangahau expressed greater satisfaction with physiotherapy education when they established positive relationships with others. When there was a focus on establishing relationships within the classroom setting, it resulted in relationships developed with educators characterised by trust and reciprocity. This connectedness helped facilitate a strengthened sense of belonging. With holistic needs met, roopu rangahau were more likely to engage with their studies and navigate their educational journey with success. Specific attention was brought to the importance of Māori physiotherapy educators. While the number of Māori educators in physiotherapy is low, Māori educators were highly valued, as interactions with them aligned more with roopu rangahau own views and perspectives.

The provision of a culturally safe space was identified as key to thriving. Spaces based on Māori values and ways of being roopu rangahau were familiar with, provided the foundation of spaces considered culturally safe. Spaces where roopu rangahau could be themselves as Māori were valued highly. Lastly, in terms of the AUT physiotherapy curriculum and pedagogy, teaching and learning experiences drawn from Māori aspirations and ways of knowing created more opportunities for roopu rangahau to self-determine their pathways. Māori values and beliefs embedded within teaching and learning experiences supported academic success. However, this was largely attributed to the peer led tuakana/teina approach to teaching and learning. One-way, didactic teaching and learning processes offered in the physiotherapy programme were not inspiring and did not support roopu rangahau to share their knowledge. The strands of relationality are threaded through all aspects of the programme that led to thriving.

Undertaking an appreciative inquiry alongside roopu rangahau has strengthened what is already known about the experiences of Māori within the tertiary health education. However, as roopu rangahau are graduates of the physiotherapy programme under investigation, their important insights have been invaluable in terms of creating an alternative approach to physiotherapy education in the future. What changes need to be made and how in terms of transforming physiotherapy education into a space of thriving will be discussed below. Key principles and practices have been identified to guide transformation of physiotherapy education that will support the next generations of Māori physiotherapy students to thrive. These are as follows: relationality, culturally safe spaces, and culturally responsive physiotherapy curriculum and pedagogy.

10.2.1 Relationality is key to Māori student success

The concept of whanaungatanga is articulated strongly in this research. We have shown that thriving is embedded within the relationships one has firstly, with sense of self; secondly, with others; and lastly, the environment. Relationality forms the threads of connectedness that are between all of these. In te ao Māori, whanaungatanga embodies this notion of relationality, enabling meaningful relationships built on mutual trust, respect, and reciprocity to develop and be maintained (Bishop et al., 2014; Carlson et al., 2016). In the current research, whanaungatanga sat at the heart of roopu rangahau experiences and was integral to a sense of belonging and connectedness. It also supported roopu rangahau to approach the future with hope and achieve their aspirations. Relationships nurtured by whanaungatanga are pivotal to thriving.

This notion of relationality closely aligns with the words of Mead (2016) who defined whanaungatanga as such that binds or weaves communities together. Within an educational

setting, whanaungatanga means that everyone who is part of the learning environment is constituted as whānau; or, in other words, becoming an extended family provides a foundation for educational success (Bishop et al., 2014). The research findings showed that whanaungatanga provided the foundation for roopu rangahau to nurture important relationships. Through such relationships, roopu rangahau also felt acknowledged and valued. Supported to be themselves, this enhanced their identity and sense of belonging in the programme. Through shared experiences based around social, cultural, and educational interactions, this added to an environment from which roopu rangahau could thrive and subsequently strengthened their desire to achieve their aspirations of becoming a Māori health professional.

This strong link between the centrality of relationships and personal and educational success is evident across multiple levels of the educational system (Bishop & Berryman, 2009; Bishop et al., 2014; Curtis et al., 2012a; Curtis et al., 2012b; Davis & Came, 2022; Macfarlane et al., 2018; Mayeda et al., 2014; Theodore et al., 2016). In secondary school education, for example, relationships between educators and Māori students based on whanaungatanga are key to effective teaching, and improving educational achievement of Māori students (Bishop & Berryman, 2009; Macfarlane et al., 2018; Rātima et al., 2022). In support, Glynn (2010) wrote that building and maintaining trusting and reciprocal relationships between students and teachers is not merely a matter of establishing rapport but an essential process that can significantly impact successful learning journeys for Māori students. The current research affirms this sentiment.

Within the tertiary setting, foundation programmes offered in some tertiary intuitions within Aotearoa have been reported to have more favourable educational outcomes for Māori enrolled in a range of medical and health science programmes (Curtis et al., 2015a). Tailored specifically to meet the needs of Māori, educational success of Māori in these programmes has been directly related to their culturally responsive focus (Bristowe et al., 2016; Curtis et al., 2012a; Curtis et al., 2015a; Curtis et al., 2012b). With whanaungatanga centralised, cultural identity and sense of belonging is affirmed, and it is this factor that has been linked with the academic success of Māori undertaking these programmes (Curtis et al., 2015a). These findings show that when supportive spaces are more purposely created, the experiences of Māori are markedly different both in terms of academic success and holistic well-being. However, despite these positive outcomes, it seems the focus on relationality for Māori students has not received the same attention as the student progresses through the tertiary academic system.

Relationality is an integral component to the experience of Māori in physiotherapy education, and this was emphasised in theme 1: 'importance of whānau'. This emphasis on relationality extends beyond the learning. Relationships are fundamental to who roopu rangahau are, and this is consistent with Māori worldviews (Stucki, 2012). Roopu rangahau placed high value on a number of different relationships. With positive relationships established, roopu rangahau were more likely to successfully navigate the physiotherapy journey. Nonetheless, while the findings demonstrate relationships are integral, it is apparent that the process of whanaungatanga is not a common practice within the formalised spaces of physiotherapy education at AUT; whanaungatanga is only found in spaces outside of this setting. Similar outcomes have been found in other health educational programmes where whanaungatanga is not a priority (Chittick et al., 2019; Davis & Came, 2022; Patterson et al., 2017; Wikaire & Ratima, 2011; D. Wilson et al., 2011). When learning relationships have not been established it reinforces power imbalances between the educator and student. Bishop (2003) suggested that relationships created within the teaching and learning environment promotes sharing of knowledge. This is due to Māori ways of being and knowing being accepted, legitimised, and validated. He also commented that educator-student relationships support Māori students to bring their knowledge and 'who they are' as Māori into the teaching and learning space (Bishop, 2003) which, consequently, supports Māori to thrive (Bishop, 2003; Macfarlane et al., 2018; Macfarlane et al., 2014). The current research findings suggest that a relational- based approach based on values and social processes needs to be established within current teaching and learning spaces in physiotherapy education at AUT. A stronger focus on connectedness and engagement may result in power sharing relationships, and promote Māori recruitment, retention, and success in physiotherapy education.

10.2.2 Culturally safe spaces

This research also focuses attention on the importance of culturally safe spaces, particularly spaces available on campus just for Māori, and their association with thriving. Relationality was intricately intertwined within these spaces and aligns with other literature that demonstrates the critical role of spaces to develop relationships that create a base of support while Māori students navigate the university journey (Curtis et al., 2012b; Davis & Came, 2022; Wikaire & Ratima, 2011).

Underpinned by values important to Māori, these spaces represent an 'ordinary place' to be Māori; where its 'OK to be Māori' and be who you are in all educational spaces, and Māori students can connect with others with similar ways of being and aspirations with confidence and pride. Māori spaces are, therefore, not just a physical space, but are spaces where Māori

feel valued as Māori, where they are empowered, and their mana upheld. Theme 2 considers the importance of place, and in this research, the whānau room, was highlighted as a space valued highly by roopu rangahau for the above stated reasons. Within this space, Māori language, knowledge, culture, and values were normalised. Further, the research findings demonstrated that relationships were built and sustained, and in a space that 'felt' safe; where roopu rangahau felt a sense of belonging. Nurtured within this space, roopu rangahau engaged more in their studies and were more likely to achieve their goals and aspirations within physiotherapy education. While other studies have identified the value of space for Māori (Curtis et al., 2012b; Davis & Came, 2022; Wikaire & Ratima, 2011), we have deepened this understanding by highlighting the impact of this space on Māori success. Māori spaces encapsulate what it means to thrive and are essential to Māori retention and success.

In contrast to Māori spaces, the research findings indicated that some Māori students found space of physiotherapy education culturally unsafe. This was due to the omission of the process of whanaungatanga within these more formalised education spaces. However, this is not isolated to physiotherapy education. Davis and Came (2022) described occupational therapy education spaces as culturally unsafe and attributed this to the lack of opportunities for whanaungatanga. Identified as a 'limitation of (western) pastoral care' in formal spaces of education it was considered detrimental to Māori students' holistic well-being. These concerns surrounding educational spaces that are culturally unsafe have been highlighted in a number of studies that have explored Māori experiences in health education (Chittick et al., 2019; Patterson et al., 2017; Wikaire & Ratima, 2011; D. Wilson et al., 2011). Māori spaces are unique and should remain as such so that Māori can continue to seek their own ways of thriving. However, culturally safe learning contexts are critical within academic and clinical spaces. These research findings prompt us to consider how to create educational spaces where Māori feel valued, validated, inspired, and their ways of knowing legitimised. Physiotherapy educators can have a significant impact on Māori students' safe journey through their educational experiences. The results from the current research show that culturally safe spaces within formal education in academic and clinical spaces, where Māori students can bring their knowledge and be who they are within educational spaces, are essential to Māori success. Pivotal to an educational culturally safe space are opportunities that nurture whanaungatanga.

10.2.3 Culturally responsive physiotherapy curriculum and pedagogy

The current research shows that physiotherapy education at AUT is based largely on westernised views and perspectives, as evidenced in the curriculum and pedagogical approaches (teaching and learning strategies), support systems, and services of the wider

institution. Despite the substantive evidence pertaining to health disparities experienced by Māori within Aotearoa, alongside the multiple educational and health strategies, and health professional standards developed to ameliorate these issues, there has been little shift towards decolonisation of physiotherapy education. This finding is consistent with other researchers who have also explored physiotherapy education in Aotearoa (Wikaire & Ratima, 2011; Wilson, 2021). Physiotherapy education at AUT could, therefore, be doing more to sufficiently prepare new graduates to improve Indigenous health. We argue that this also has ramifications for Māori physiotherapy students and their ability to thrive and achieve their aspirations through their educational journey.

There is a connection between westernised health programmes and health inequities experienced by Māori (Francis-Cracknell et al., 2019; Waitangi Tribunal, 2019; Wikaire & Ratima, 2011). Jones et al. (2019) commented that determinants of Indigenous health including colonisation, racism, and privilege are deeply embedded within health education. Health education programmes need to be responsive to these issues as they significantly impact the development of a culturally safe and competent health workforce. In terms of supporting health equity through curricula, some programmes are more advanced than others. For example, there is evidence of Indigenous knowledges within nursing and medical course curricula, but this is in contrast to many allied health programmes including physiotherapy (Barton & Wilson, 2008; Curtis & Reid, 2013; Heke et al., 2019; Jones, 2011; Jones et al., 2010; D. Wilson et al., 2011). While there is currently no direct measure of the impact or effectiveness of culturally responsive training in undergraduate health programmes, it is suggested that a stronger focus on culturally based content within health curricula at undergraduate level will contribute to health equity (Ewen et al., 2012; Pitama et al., 2018; Te et al., 2019; Te et al., 2022).

Decolonising the health educational environment, whereby the institution reorients knowledge production, structures, and polices from Indigenous and non-Indigenous perspectives, has been proposed as a solution to reduce barriers to access and support Māori advancement within health education (Curtis et al., 2014; Jones et al., 2010; Shahjahan et al., 2022). Across the globe there is evidence of a 'decolonisation movement' occurring within tertiary education (Charles, 2019). Decolonising the curriculum has been referred to by Charles (2019) as "creating spaces and resources for a dialogue among all members of the university on how to imagine and envision all culture and knowledge systems in the curriculum, and with respect to what is being taught and how it frames the world" (p. 1). While there are calls that medical education needs to be more person-centred, medical curricula that are respectful of and encompass the broader views and perspectives are just as important (Bleakley et al., 2008; Francis-Cracknell et al., 2019; Jones et al., 2019). Jones et al. (2019) suggested that a curriculum that positions Māori

and western knowledges at its centre can lead to improvements in health equity. This understanding is relevant to physiotherapy education.

While insufficiencies of westernised heath programmes negatively impact the cultural growth and capabilities of health professionals, Māori students are also disadvantaged within these environments. When Māori students see little evidence of their worldviews reflected in the curriculum or pedagogy, it negatively impacts their experiences. Several studies highlight the challenges that Māori face in western education and the ensuing negative impacts (Airini et al., 2010; Bishop et al., 2009; Davis & Came, 2022; Hoskins & Jones, 2022; Lourie & Rata, 2014; Macfarlane et al., 2018; McAllister et al., 2019; Webber & Macfarlane, 2020). For example, Māori students can face experiences of marginalisation, discrimination, racism, and exclusion within the tertiary environment (Mayeda et al., 2014; McAllister et al., 2022; Pasene, 2018; Theodore et al., 2016). Accordingly, Māori students, compared to Pākehā and Tauiwi students, must overcome several non-academic challenges despite being in these same environments. The current research shows that Māori physiotherapy students are not exempt from these challenges; and, consequently, their identity and sense of belonging is challenged during their educational journey.

While the current research highlights some of the challenges Māori experienced within physiotherapy education, there were aspects of the physiotherapy journey that enhanced Māori student success. A culturally responsive educational experience formed a critical part of Māori student holistic and academic success, and was identified in theme 4: 'cultural pedagogy'. In particular, the current research found that culturally responsive teaching and learning experiences and environments were important to roopu rangahau. Within these types of learning contexts, roopu rangahau were able to bring existing knowledge and ways of knowing because they felt culturally safe. Māori educators were strongly associated with learning environments considered culturally responsive, as with the whānau room, with both playing a significant role in Māori student success. As shown in other studies, Māori students are more likely to envision themselves as a Māori health professional when supported by Māori role models within educational and clinical settings (Chittick et al., 2019; Wikaire & Ratima, 2011; D. Wilson et al., 2011). Conversely, when Māori students did not have access to culturally responsive opportunities within academic or clinical settings, this impacted their levels of engagement and ability to achieve success. Similar findings have been reported for Indigenous students at all levels of education both nationally and internationally (Adams et al., 2005; Anonson et al., 2008; Berryman et al., 2017; Bishop et al., 2009; McAllister et al., 2022; Rigby et al., 2011).

The current research also shows that when Māori knowledges and values were reflected and fostered within the physiotherapy curriculum and/or pedagogical approaches, their identity as Māori was affirmed and, consequently, roopu rangahau felt more confident to contribute their knowledges. Further, opportunities or experiences that supported their goals of 'making a difference' were considered inspiring and empowering, and provided roopu rangahau with the motivation to succeed. The adoption of culturally responsive teaching and learning approaches that value and legitimise Indigenous ways of knowing support Indigenous student success (Milne et al., 2016). Additionally, Stucki (2012) stated that culturally responsive pedagogies that centralise the student in the learning experience supports engagement of the learner as a whole. This has been linked with well-being and sense of belonging which leads to thriving (Stucki, 2012).

In terms of the culturally responsive pedagogy highlighted in this research, there was particular reference made to the culturally-based tuakana/teina model of teaching and learning practiced in the whānau room. Largely facilitated by Māori students themselves within a culturally safe space, this approach promoted academic success and a stronger sense of self. The tuakana/teina model is an educational strategy well known to enhance Māori educational success (Glynn et al., 2010; Macfarlane et al., 2018; Rātima et al., 2022). While the current research makes reference to this particular approach, it is the value of ako reflected within this that is held in high regard. Well respected Māori educationalist Bishop (2003) described ako as a kaupapa Māori pedagogy based on the principle of reciprocity and collaborative learning processes between the kaiako (teacher) and ākonga (learner). Through shared experiences that promoted ako, roopu rangahau were more likely to offer their views and perspectives.

Through the tuakana/teina method, and other approaches that privilege reciprocity such as wānanga, the power dynamics between the teacher and learner become more balanced; hence, educators and students benefit from the learning experience and associated responsibilities of care and support (Bishop, 2003; Glynn et al., 2010). The levelling of power dynamics is an important consideration within westernised health education, and this includes physiotherapy. This further reinforces the association between the development of strong learning relationship between educators and Māori student success.

In the current research, the tuakana/teina approach provided the vehicle for roopu rangahau to develop strong collaborative working relationships with their peers. Roopu rangahau took an active responsibility for each-other's learning, and well-being. As a result, the teaching and learning experience became more enlightening, supporting sense of belonging and success. Yet, within physiotherapy teaching and learning spaces, most teaching approaches are didactic, with

few opportunities for reciprocal based learning opportunities. Physiotherapy educators, therefore, need to critically reflect about their roles in the learning environment and teaching practice to go beyond superficial engagement with Māori. By integrating and engaging in more culturally responsive approaches such as ako within physiotherapy education, and placing focus on developing more personalised relationships, the learning experience may become more enriching for everyone—educators and students.

In the current research the notion of success as Māori is strongly associated with identity. This idea was captured in theme 3: 'promotion of cultural affirmation' whereby roopu rangahau are more likely to engage in teaching and learning opportunities when they feel acknowledged and seen for who they are, as Māori. Within spaces that are open to Māori contributing culturally informed ideas, this also strengthens sense of belonging. Similar findings have been reported in the literature in secondary and tertiary educational settings (Bishop, 1996; Curtis, 2016; Milne & Milne-Ihimaera, 2022; Ruakere, 2016). Across all areas of education, cultural affirmation is associated with Māori success. Waiari et al. (2021) stated that success for Māori can be understood because of "how well the learning environment upholds a student's cultural identity and beliefs" (p. 126). When Māori students feel acknowledged within the education space, they engage with confidence (Curtis et al., 2015b; Curtis et al., 2012c; Foxall, 2013; Ratima et al., 2006; Simon, 2006; D. Wilson et al., 2011). Within westernised spaces of teaching and learning, it is reported that Māori students do not engage fully for fear of being judged, challenged, or humiliated (Berryman et al., 2017; Waiari et al., 2021). Adverse effects on level of engagement and participation impact Māori student success and retention. In the current research it was shown that while recognition of cultural identity is important, Māori identity is not the same for everyone. Nonetheless, opportunities for Māori to further develop and/or feel secure in their identity within the tertiary setting, regardless of where someone is on their personal journey, is valued and warrants further attention.

The findings from this research show that educational experiences that link to Māori students' personal values, beliefs, and identity can enhance personal and academic outcomes. However, most opportunities that support this experience occur outside of formal physiotherapy education. This suggests that physiotherapy education does not currently meet the cultural needs or aspirations of Māori to achieve success, as Māori. The current tertiary educational strategy and Māori educational strategies intensifies the focus on 'accelerating Māori success' and creating 'culturally responsive education' where 'incredible success is experienced by Indigenous people' (Ministry of Education, 2013, 2020; Rātima et al., 2022; Royal, 2022). It is a requirement for all tertiary educators to enhance Māori identity and success through appropriate culturally responsive educational opportunities (Ministry of Education, 2020).

Responding to Māori is, therefore, not just an option. With the number of Māori students set to grow within the tertiary setting, critical evaluation of the current physiotherapy curriculum and pedagogy, and models of delivery of physiotherapy education, is necessary so Māori can find their own ways of thriving.

10.3 Whanaungatanga is central to change

This research joins the call for change of improving the capabilities of the next generation of health professionals to make a positive contribution towards health equity (Curtis et al., 2014; Jones et al., 2019; Jones et al., 2010; Ratima et al., 2006). Physiotherapy education has a significant role in supporting health equity. While there is support for this in physiotherapy professional standards (Physiotherapy Board of New Zealand, 2018), change that reflects this stance is yet to be embedded within the fabric of physiotherapy education. The findings from the current research strongly emphasise the need for transformative change within the physiotherapy programme at AUT. Changes identified include a culturally responsive curriculum and pedagogy (teaching and learning practices) supported by both Māori and non-Māori educators, the provision of culturally safe educational spaces within academic and clinical spaces, and opportunities that support Māori students to be themselves as Māori and achieve their aspirations. Providing a more enriching learning experience for Māori, where Māori are better supported to reach their potential within physiotherapy education, will, in turn, support Māori recruitment and retention and positively impact the development of the Māori physiotherapy workforce—a key strategy to improve Māori health (Ministry of Health, 2020b, 2022, 2023a).

The pillar of change within physiotherapy education is recognised as the concept of relationality; a concept identified in te ao Māori as whanaungatanga. Evidence indicates that fundamental to student retention and success are mutually respectful and reciprocal relationships between educators and Māori students (Bishop & Berryman, 2009; Curtis et al., 2012b; Gorinski & Abernethy, 2007; Webber & Macfarlane, 2020). Glynn et al. (2010) suggested that adopting "cultural relationships-based learning strategies" (p. 120) between educators and learners is important to success. This idea that whanaungatanga contributes to success of Māori within the educational environment is widely supported by Māori educationalists and researchers (Bishop et al., 2014; Durie, 2009; Rātima et al., 2022; Waiari et al., 2021).

This current research shows that in physiotherapy education relationships between educators and Māori students, and between each other's knowledge domains, require strengthening. With resonance between relationships and Māori student success, recommendations are such that relationships must form the foundation of transformative change within physiotherapy

education. Relationality promotes connectedness and engagement that further promotes the sharing of Māori knowledges, ways of knowing, and supports Māori to achieve their aspirations (Bishop, 2003). A stronger focus on relationality to support Indigenous student success is consistent with other researchers who advocate for culturally responsive change in tertiary settings both nationally and around the world (Asmar et al., 2011; Francis-Cracknell et al., 2019; Goold et al., 2002; Jones et al., 2019; Lydster & Murray, 2019; Martin & Seguire, 2013; Mayeda et al., 2014; Milne et al., 2016; Rātima et al., 2022; Rigby et al., 2011; Taylor et al., 2019; Theodore et al., 2016; Wikaire & Ratima, 2011). Culturally responsive educational practice strengthens the pathway towards Māori success.

The vision to create more authentic and culturally responsive and safe learning experiences for Māori will require educators developing an openness to Indigenous knowledges, perspectives, and values in all aspects of the physiotherapy curriculum, pedagogy, and support structures. This perspective is supported by Associate Professor Te Kawehau Hoskins (Pro Vice-Chancellor Māori University of Auckland) who stated that supporting retention and success of Māori students in the tertiary environment requires educators "finding ways where Māori knowledge, ways of being, thinking and doing can thrive" (University of Auckland: Waipapa Taumata Rau, 2021). To better support Māori achieve their aspirations within the educational system educators need to look at different ways of educating Māori so Māori students are educated in ways that align with their Māori worldviews, and where Māori knowledges are valued (Bishop, 2003; Glynn et al., 2010; Rātima et al., 2022).

The findings from this research show that key to creating a culturally safe and responsive educational space is taking the time to build meaningful, trusting, and reciprocal relationships. This will require the inclusion of a broader range of academic and cultural and social opportunities within physiotherapy education that support Māori from a holistic sense and encourage opportunities to develop and maintain relationships. It also requires dismantling the current systemic barriers that currently oppress Māori students in this space. There are a myriad of educational recommendations and resources readily available to support educators to foster culturally responsive learning experiences (Ministry of Education, 2013; Ministry of Education and New Zealand Teachers Council, 2011; Rātima et al., 2022). These advocate for creating a shift from a position of power to sharing that creates an environment whereby Māori students can offer their perspectives and knowledges (Bishop, 2005; Nasir et al., 2008); thereby adding to the creation of a culturally safe environment. As with the key findings of the current research, whanaungatanga is foundation to these recommendations (Ministry of Education, 2013; Ministry of Education and New Zealand Teachers Council, 2011; Rātima et al., 2022; Royal, 2022).

Little is known about the impact of adopting culturally responsive teaching strategies within health education in Aotearoa. Initiatives such as implementation of the hui process of engagement in medical education has shown to increase quality interactions between health professionals in training and Māori patients and whānau (Pitama et al., 2014). The impact of Indigenous health curricula is unknown as they are still new and emerging, but the role of institutions in further developing indigenous curricula to respond to health inequities more adequately has been highlighted (Francis-Cracknell et al, 2019; Jones et al, 2019). The impact of culturally responsive approaches to teaching and learning have been recently explored in nursing education. Zambas et al. (2023) evaluated the experiences of Māori following the implementation of Māori student cohorts within the first few years of a nursing programme. Several themes, including whanaungatanga, emerged from their study's findings, with Māori nursing students valuing opportunities to connect with other Māori students and form a community of support. While these are encouraging outcomes, Zambas et al. argued that the teaching environment needed to integrate other aspects of Māori ways of being, including tikanga Māori and manaakitanga, for Māori students learning needs to be met fully. The findings of Zambas et al. adds to the key findings of the current research, and emphasises a multi-faceted approach is needed to enhance Māori success. Further, engaging with Māori pedagogical approaches will not only support Māori but all students in their learning. These recommendations align with expectations of scholars and educationalists who share similar aspirations of a decolonised health education in the future (Bishop et al., 2009; Curtis et al., 2014; Macfarlane, 2004; Smith, 1995; Theodore et al., 2016).

10.3.1 Resistance to change

This research offers recommendations for culturally responsive change within the AUT physiotherapy programme and wider AUT community. With these suggestions of change it is recognised that culturally responsive transformation will not come easily for some educators and leaders, and that there is likely to be resistance to change (Pardo del Val & Martinez Fuentes, 2003). Hotere-Barnes (2015), a Pākehā educational specialist in effective Māori and non-Māori engagement, suggested that when there is resistance to change it can hinder the transformation process. He also contended that the reasons why Tauiwi/Pākehā educators may be less willing to support cultural change are complex. Other factors attributed to resistance to change include a lack of understanding of colonisation and the impacts of power and privilege, and/or a poor knowledge of culturally responsive healthcare practice and service delivery (Vass & Adams, 2021). Fear of getting 'things wrong' has also been cited as a change barrier (Hotere-Barnes, 2015; McIver et al., 2022; Tolich, 2002). Pākehā paralysis, a term originally coined by Tolich (2002), describes the emotional and intellectual difficulties Pākehā can experience when

engaging with Māori resulting in a reluctance to make change (Hotere-Barnes, 2015). While resistance to change is important to consider, this concept requires exploration in future research.

Centralising the concept of relationality as the foundation of transformative change is likely to be challenging for physiotherapy educators. Firstly, relationality is not valued in the same way by non-Indigenous peoples compared to Indigenous peoples where relationality and connectedness are foundational to their culture (Bennett, 2003; Meyer, 2014). Secondly, there is limited evidence of relationality within the mainstream tertiary educational environments. This suggests that it is not valued within the educational setting (Jones et al., 2019; McAllister et al., 2019; Naepi et al., 2020). Further, western educator philosophies typically value individual excellence and academic success over the success of the collective (Glynn et al., 2010; Petersen, 2021). This may be due to a by-product of the lived experiences of Pākehā/Tauiwi educators within health and educational systems dominated by the tradition of the westernised worldview. In addition, as most physiotherapy educators come from clinical health backgrounds, it is argued that the same hierarchical structures and professional boundaries found in the healthcare environments are mirrored in educational spaces; hence, this may also impact educators adopting relational approaches to teaching and learning (Bishop, 2003; Fernandopulle, 2021; Smythe et al., 2018). Consequently, there are many factors that govern how some Pākehā/Tauiwi educators behave or portray themselves within the classroom setting alongside students, in particularly Māori, which impacts the experience of Māori and, subsequently, Māori retention and success.

In terms of the wider tertiary sector, poor leadership and under-resourcing to develop and deliver culturally responsive education are other barriers to culturally-based transformative change identified by Māori scholars and health professionals (Hoskins & Jones, 2022; Jones et al., 2019; McAllister et al., 2019; Naepi et al., 2020). Low numbers of Māori academics within the tertiary setting presents another challenge, as found in the current research. An issue right across the tertiary sector, raising the number of Māori educators requires urgent attention (Curtis et al., 2012a; Curtis et al., 2012b; McAllister et al., 2019). Nonetheless, while Māori educators provide a unique skill set that is critical and valuable within generic health education environments, education and health scholars agree that the responsibility of culturally responsive practice should not just lie with Māori educators. Everyone has a responsibility to contribute to an environment that is built on cultural respect and safety.

10.3.2 Culturally responsive change in physiotherapy – how will we get there?

Meeting te Tiriti responsibilities as Tangata Tiriti educators will be critical to enacting meaningful transformative change that is effective and can be sustained within physiotherapy education. Te Tiriti honouring academics will meet their duty of care in the provision of culturally safe academic and clinical practice experiences—not just for Māori but for all students. For meaningful culturally responsive change within physiotherapy education that creates a space of thriving, all educators need to develop an openness to change that will disrupt the dominant monocultural ideology that currently exists. To support change that reflects a wider and inclusive view, educators will need to engage in meaningful collaboration with Māori educationalists and health experts, and the wider Māori communities for the development of a comprehensive physiotherapy curriculum, and pedagogical approaches that are reinforced consistently across the physiotherapy programme.

Further, to view physiotherapy education through a different lens, and draw from Māori cultural aspirations and ways of knowing, Pākehā and Tauiwi educators will need to reflect critically and develop their own critical consciousness. This will require critiquing taken for granted power structures, their own culture, and the culture of the system (Curtis et al., 2019). In becoming more reflexive, educators may be able to acknowledge and address power, privilege, biases, and stereotypes with the curriculum and teaching and learning environments. Changing from a position of power and being the expert to accepting a lack of 'knowing' will be critical to understanding the scope of change needed to become more responsive to transforming physiotherapy education into a more contemporary, innovative, and inclusive educational experience for Māori. Henceforth, the metaphor he awa whiria (the braided river) may provide an appropriate framework to support the space required to facilitate a relationship that is fundamental to the process of change. Establishing genuine and authentic relationships with Māori is likely to result in enriching outcomes of change that may benefit future generations of physiotherapists and the health and well-being of all our community.

To implement culturally based change within physiotherapy that is inclusive of values and beliefs that align with kaupapa Māori based principles will require a whole system approach. Physiotherapy education sits within a university; thus, the responsibility of supporting Māori recruitment and retention and success is not ours alone. Factors such as colonisation, racism, and privilege, for example, need to be addressed at curriculum, programme, and institutional levels. The university also needs to re-consider its own strategies to facilitate culturally responsive change to support Māori student success (Francis-Cracknell et al., 2019; Jones et al., 2019; Zambas et al., 2020). This idea aligns with the pipeline framework that channels Māori

students from secondary school into the health system to enhance the Māori health workforce (Curtis et al., 2012c; Ratima et al., 2006). Supporting Māori should begin from when they are still in secondary school and extend into the health system, as clinical experiences also form part of the academic experiences. Currently it is unclear where AUT and physiotherapy education sit with this process, but it is clear they need to be more actively engaged in this pipeline.

One final factor that requires addressing is leadership within the university. Leadership needs to be revisited so that Māori are leading and making decisions as all levels of the university system. This is currently not the case at AUT. There is only a small percentage of Māori in positions of leadership, with none in physiotherapy. Further, the institution needs to invest in developing indigenous health capacity (Pitama et al., 2018). To work towards culturally safe physiotherapy education and raise the level of consciousness and reflexivity, ongoing professional development for educators and support people will be essential. This will require adequate resourcing and prioritising resources for change (Jones et al., 2019; Pitama et al., 2018). Supporting Māori student retention and success in physiotherapy education and influencing the Māori physiotherapy workforce requires a systemic approach to cultural change.

10.3.3 Summary

This research places a spotlight on changing the focus of physiotherapy education and asks physiotherapy educators to consider more culturally inclusive and responsive ways of delivering physiotherapy education to Māori students. Forming the centre of this approach is integrating and prioritising whanaungatanga, a value that holds great significance within te ao Māori, within predominantly westernised physiotherapy spaces, so that Māori students can engage and participate in spaces where they feel like they belong and are supported towards success in ways that are considered more culturally appropriate. As a consequence of interweaving values or principles of kaupapa Māori, physiotherapy education should transform into a place of thriving. With stronger pathways towards success, Māori physiotherapy students will be inspired by the possibility of their futures as Māori health professional, educators and leaders; wherein new graduates can be better prepared to contribute to health equity. To follow, the conclusion of this thesis is presented and specific recommendations to support change are offered.

Chapter 11 Conclusion

Ehara taku toa i te toa takitahi
Engari he toa takitini
My strength is not as an individual but as a collective. (Alsop & Kupenga, 2016)

11.1 Introduction

This research aimed to explore and accentuate the positive aspects of physiotherapy education at AUT through the voices of Māori. Capturing the voices of Māori is important for educators and leaders to learn from, so that transformation is meaningful and effective. The main intention of undertaking this process was to understand how physiotherapy education could be transformed into a space of thriving. To discover thriving, a Māori-centred methodological framework based on te whāriki was adopted to explore the experiences of roopu rangahau (Māori physiotherapy graduates) during their prior experiences of physiotherapy education. A culturally adapted process of appreciative inquiry was adopted to privilege Māori voice and draw out the best of the programme. Once these factors were identified, these were incorporated into dreams which were later used to inspire the design of physiotherapy education in the future where all students achieve their aspirations. Centring Māori voice has provided a new perspective on physiotherapy education. Māori have envisioned physiotherapy education at AUT as space where Māori and Westernised values, principles and practices interweave. In this final chapter, culturally-based recommendations for transformative change in physiotherapy education at AUT, the wider university, and physiotherapy board are shared that will support all students in their quest towards success within the physiotherapy academic environment and beyond. These recommendations for transformation will be instrumental for future development and delivery of culturally responsive physiotherapy education. Implications of the research outcomes locally, nationally, and internationally are also presented in this chapter; followed by the strengths and limitations of the present research. Finally, as a sign of respect, the words of roopu rangahau who have generously gifted their taonga in the form of stories and words of wisdom, bring this thesis to a close.

11.2 Transforming physiotherapy education into a space of thriving

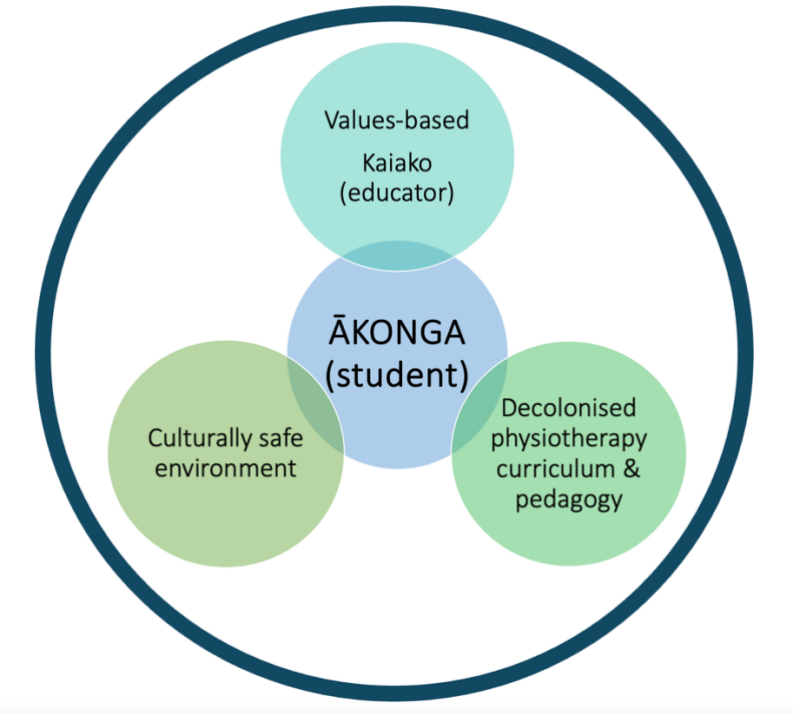
The following recommendations have been drawn from the *Design* phase in Chapter 9, where 10 priority statements were identified. Collectively, these strategies point towards the direction of change that will support recruitment, retention, and success of Māori within physiotherapy education in the future.

This research has shown that the current structures of physiotherapy education require significant transformation that is culturally-based. Systemic issues that impact physiotherapy education have also been identified, therefore the responsibility of cultural change lies at many levels. For this reason, recommendations have been suggested for physiotherapy educators, the AUT organisation, the Physiotherapy Board, and clinical health settings that support students through clinical placement; all of whom have a role in supporting effective transformation of physiotherapy education. The following recommendations are divided into sections to demarcate who is responsible and accountable for change. These recommendations will be shared with each relevant group to ensure action from this research leads towards a culturally responsive educational space that collectively enhances the well-being and growth of all students.

The area impacted the most from this research will be the physiotherapy educational space. Three areas of transformation have been recommended and include: the educator, identified as kaiako; the physiotherapy curriculum and pedagogy; and the learning environment. These recommendations place the student, identified as ākonga, at the centre of the educational experience so the mana of future generations of physiotherapy students can be enhanced (refer to Fig. 21). The root word of 'ako' in kaiako and ākonga means to learn and create knowledge together (Moorfield, 2011). Key to transformative change will be the extent of the relationships that extend between and within these different factions. Te Tiriti will provide the guiding framework, so transformative change is meaningful and beneficial for all.

Figure 21

Culturally Responsive Physiotherapy Education Placing Ākonga at the Centre



Note. Culturally responsive physiotherapy education supports ākonga to thrive by centring them within an environment that is culturally safe. Kaiako embody a values-based in their approach to the design and delivery of physiotherapy education, which adds to a space that is culturally safe.

11.2.1 Recommendations for physiotherapy kaiako

Engage in professional development

- Engage in regular practice of self-reflexivity and critical consciousness with respect to our own identities and culture, privilege, and biases.
- Attend training in te Tiriti o Waitangi promoting cultural safety, disrupting racism, and discrimination.
- Adopt a values-based approach to education.
- Place a focus on the principle of relationality to support meaningful engagement with ākonga and between colleagues.
- Acquire a basic understanding of te ao Māori, te reo, and tikanga.
- Be open to all views and perspectives with decision making, and in educational spaces.
- Consider ākonga as a whole during their learning journey.
- Support ākonga to achieve their aspirations through mana enhancing opportunities.

Decolonise physiotherapy curriculum and pedagogy

- Develop and deliver a curriculum that supports health equity.
    - Increase understanding of te ao Māori, te reo Māori, and basic tikanga.
    - Integrate Māori knowledge and values into a strength-based curriculum and pedagogy.
    - Embed Māori-relational models of care in practice.
    - Address concepts of privilege, biases, and discrimination in the curriculum.
    - Address the history of te Tiriti o Waitangi and its relevance to current practice.
    - All students participate in courses specific to hauora Māori.
- Meet culturally based physiotherapy professional and educational requirements.
- Engage with Māori experts in education and health and Māori communities to develop and deliver physiotherapy education.
- Foster supportive and collaborative relationships with ākonga and between ākonga within the classroom.
- Re-consider educational and assessment practices.
    - Use effective and interactive culturally responsive and reciprocal teaching and learning methods that are student focused (e.g., tuakana/teina, wānanga).
- Provide culturally appropriate academic and pastoral support for Māori.

Create culturally safe and inclusive teaching and learning environment

- Promote and engage in a values-based and welcoming physiotherapy educational environment.
    - Adopt appropriate tikanga and use of te reo Māori in teaching spaces.
- Create additional opportunities for kaiako to interact with ākonga and whānau and develop meaningful relationships in informal 'spaces' (e.g., overnight marae or camp stays) that promote whakawhanaungatanga and support on-going relationships through whanaungatanga.
- Employ and support Māori academic and support staff.
    - Create opportunities for Māori graduates of the programme to support the design and delivery of the programme and support of current Māori ākonga.
- Based on the concept of ako, support all ākonga to contribute their own knowledges and 'be themselves' within educational and clinical settings.

11.2.2 Recommendations for clinical supervisors and clinical supervisors of Māori physiotherapy ākonga and new graduates

- As for physiotherapy kaiako (refer above).
- Engage with decolonised curriculum and pedagogy.
- Provide culturally safe practical spaces for ākonga.
    - Avoid placing cultural related expectations on Māori graduates or current ākonga.
        - Enable Māori ākonga to self-determine what they want to contribute from a te ao Māori perspective (e.g., offering karakia before and after a meeting).
- Adopt and role model Māori-relational models of care in practice.
- Create opportunities for Māori graduates and ākonga to be mentored by or work alongside Māori health providers within kaupapa Māori health services.

11.2.3 Recommendations for the tertiary institution

Decolonise the university

- Appoint and support Māori in leadership positions.
- Incorporate and demonstrate Māori values within the university.
- Take actions that eliminate institutional racism, discrimination.
- Recruit and retain more Māori kaiako and support staff.
- Adopt policies that provide cultural safety training for academics and support staff.
- Support transition of Māori ākonga from secondary school into tertiary.
- Provide additional resourcing for the following:
    - Professional development in Māori pedagogy and indigenous curriculum development, disrupt racism and discrimination.
    - Fund more Māori spaces for Māori ākonga and kaiako on campus (e.g., whānau rooms).
    - Fund more welcoming spaces and events on campus for all ākonga and kaiako to whanaungatanga and maintain social networks.
    - Provide more culturally appropriate academic support for Māori ākonga.

11.2.4 Recommendations for the Physiotherapy Board

- Work on relationships with physiotherapy education institutions and physiotherapy undergraduate ākonga to strengthen the role of physiotherapists in achieving health equity and promote alignment between educational and Board expectations.
- Be more visible to Māori ākonga early in their student journey and support their transition from ākonga to beginning practitioner.
    - Promote relationships by hosting and attending social activities with Māori physiotherapy ākonga (e.g., attend Year 1 whakatau, a welcome ceremony for new ākonga starting physiotherapy education).
- Enforce development and implementation of indigenous physiotherapy curricula and Māori graduate profiles within physiotherapy education through accreditation expectations.
    - Physiotherapy curricula audit conducted by clinical, education, and Māori experts within Aotearoa.
- Support Māori graduates as they enter workforce by supporting inclusive and culturally safe places of working concurrently alongside physiotherapy standards that reinforce this stance.
- Design accreditation criterion that exemplifies what culturally responsive physiotherapy education should and can look like.

11.3 Implications of the research outcomes locally, nationally, and internationally

The outcomes of this research will support the development of culturally responsive curriculum and physiotherapy educators at AUT. This will have implications for Māori physiotherapy students enrolled at AUT in the future in terms of being supported more appropriately to achieve their aspirations. Further, the development of a deeper understanding of the importance of whanaungatanga within this educational space will underpin all future decisions in terms of curriculum development and teaching and learning pedagogy, resulting in

opportunities that support relationality prioritised throughout the programme. Emphasising whanaungatanga by physiotherapy educators will result in the creation of culturally safe educational environments or spaces that are culturally inclusive. This will ensure physiotherapy education is delivered in a more mana enhancing way, supporting Māori success. There is the potential to carry this over into physiotherapy practice.

This research is the first to instigate and to begin to implement culturally inclusive change within physiotherapy education in Aotearoa. It will have significant impacts in terms of attracting Māori to the programme. A rise in Māori student numbers, who then successfully complete their physiotherapy degree, has implications for Māori physiotherapy workforce development. It will also have implications for the AUT physiotherapy education meeting educational requirements of the TES and accreditation requirements advised by the Physiotherapy Board. The recommendations from research will also have implications for other physiotherapy programmes offered throughout Aotearoa.

This research has wider implications for health equity in Aotearoa. Implementing the recommendations of this research will support physiotherapy education that is more responsive and adaptive to the health needs of the community it serves, creating a pathway for all physiotherapy graduates to develop as culturally responsive and safe practitioners, and make a positive difference to the health and well-being of the communities they serve.

The recommendations from this research will also have implications for other health programmes offered within the same university. Wider promotion of these strategies may lead to increasing the number of Māori students graduating from other health related courses. These recommendations have global appeal in terms of supporting Indigenous students enrolled at universities worldwide that offer similar health related courses. Comparable challenges impact the experiences of Indigenous students enrolled in universities across the world (Asmar et al., 2011; Goold, 2001; Milne et al., 2016; Rigby et al., 2011; Taylor et al., 2019). Indigenous populations have a similar understanding of and value the concepts of collectivism and relationality as has been found in this current research (Chilisa, 2012; Hart, 2010; Meyer, 2014); hence, the recommendations from this research are relevant to international educational settings.

11.4 Strengths of the research

This research was successful in terms of being culturally positioned and working collaboratively with Māori, and meeting the overarching aims of the research. The approach was underpinned by theories of kaupapa Māori based research and te Tiriti, and the ethical principles of Te Ara

Tika were upheld. The strengths of the research will be discussed in relation to contributions to local and national scholarship and physiotherapy education. This is followed by considering the contribution to international scholarship and physiotherapy programmes, and how these findings can be disseminated.

11.4.1 Contributions to local and national scholarship and physiotherapy education

While successful Māori-centred research has been undertaken within a variety of educational or health settings, few cross-cultural studies led by Pākehā or Tauiwi researchers have been undertaken within the tertiary health setting. The methodological approach and methods undertaken in this research provide an exemplar of the culturally responsive processes required to undertake successful Māori centred research. This may be of interest to Pākehā and Tauiwi researchers undertaking Māori-centred research in the future.

The heart of this research framework was developed in collaboration with Māori. Establishing a research whānau was a critical component with respect to developing the framework and understanding how to engage in a meaningful way. It resulted in the research being conducted in a way that was both ethically and culturally safe for roopu rangahau. Through meaningful engagement with the research whānau, a research environment was created for Māori and Pākehā to work collaboratively and respectfully, exemplifying how a Tiriti led partnership should and could be. This, again, has implications for Pākehā and Tauiwi researchers intending to embark on Māori-centred research.

A key strength of this research was the adoption of Māori-centred research principles interweaved with appreciative inquiry. This resulted in the creation of te whāriki that gave everyone involved in the research a safe space to stand and consider a culturally based physiotherapy education that will benefit all students and educators alike in the future. This concept of a shared space strongly aligns with te Tiriti based practice. For researchers wishing to embark on effective change research in the educational or health setting within the context of Aotearoa, undertaking a te Tiriti based approach to the research process is inherent to attaining meaningful outcomes that will benefit Māori.

Appreciative inquiry, under the umbrella of action research, has been a promising way to establish viable options to develop physiotherapy education suited to the future. This research has shown that utilising a change method approach alongside roopu rangahau has the potential to make significant contributions to culturally responsive change within physiotherapy. The appreciative inquiry effectively surfaced personal and programme strengths, and

recommendations for physiotherapy education in the future. The richness of what was shared indicates that this culturally adapted approach to the inquiry successfully facilitated a mana enhancing approach where roopu rangahau felt listened to and heard.

A strength of appreciative inquiry was positioning Māori central to the research process whereby tino rangatiratanga was promoted within their own cultural context. In doing so, this research gave Māori a voice. This was the first time Māori with experience of the programme had been given an opportunity to share their experiences of their physiotherapy journey though the AUT programme. Further, privileging the different perspectives represented within the 'Māori voice' has been very effective in terms of informing changes within physiotherapy education that are transformative and have benefits to Māori. This illustrates the powerful role Māori have with respect to reshaping physiotherapy education.

While the importance of creating collective spaces for Māori to come together and share their views and perspectives has been highlighted in this research, the positive impact that can come from taking appropriate action in response has also been demonstrated. Many studies in health education identify strategies for change through their research findings; yet few have engaged in processes of enacting and evaluating change. A point of difference of the current research is that through a change process methodology, the strategies of change identified through the appreciative inquiry were drawn upon on immediately to action change. Lastly, changes I have made within my own educational practice in response to undertaking this research journey are identified in Appendix N.

11.4.2 Contributions to international scholarship and physiotherapy education

Many of the local contributions are applicable for non-Indigenous researchers exploring Indigenous health and education on an international scale. Within international literature, similar debates exist regarding non-Indigenous researchers conducting research with Indigenous participants and the negative impacts this can have on Indigenous participants or Indigenous communities (Chilisa, 2012; Hart, 2010; Sikes, 2006; Wilson, 2001). The current research adds support to the importance of researchers developing an awareness and sensitivity, and building cultural capacity so research with Indigenous people is conducted effectively and respectfully within a cross-cultural environment. Engaging in a research process where Indigenous knowledges and values are interweaved with westernised philosophies, such as the current research has shown, is a pathway for non-Indigenous researchers to follow.

In terms of physiotherapy education, the findings from this research have relevance for physiotherapy programmes worldwide that face similar issues regarding retention and success

of Indigenous students (Coghlan et al., 2017; McMeeken et al., 2008). Dissemination of the findings from this research through international peer reviewed journals (*Academic Medicine*, *MAI Journal: A New Zealand Journal of Indigenous Scholarship*, *New Zealand Journal of Physiotherapy*) and presenting to the global physiotherapy community via relevant international conferences (the World physiotherapy Congress, and World Indigenous Peoples' Conference on Education) could further promote both culturally responsive physiotherapy education and research.

11.5 Limitations of the research

Pre-existing relationships with roopu rangahau are considered a limitation in western-based research practices, as this has ethical implications. However, in terms of the current research, relationships with roopu rangahau were, in fact, beneficial. This was evidenced by the richness of information shared.

One limitation is that the research focused on Māori physiotherapy graduates who had successfully completed the physiotherapy programme and engaged with other Māori students throughout their journey; hence, the research did not capture the voices of those who were not in a cohort with other Māori students, or who did not utilise the whānau room for support. The voices of Māori students who did not successfully complete their physiotherapy studies were not captured.

The COVID-19 pandemic impacted the timeline of this thesis. With the country going into an enforced lock-down, delays to processes associated with this research resulted. COVID-19 provided many challenges in terms of honouring the methodological foundations that underpinned this research. While kanohi ki te kanohi hui had been originally planned, due to COVID-19 restrictions, hui were conducted online to meet the research time line. Whilst convening a hui online was initially viewed as a concern, roopu rangahau who resided outside of Tāmaki Makaurau (Auckland) were able to attend.

Changes in the Head of the Physiotherapy Department also impacted this research. Over the time taken to complete this thesis there were four personnel changes to this role. As this research is action based, for change to be effective it is important to have support from all of those within a position of influence. With the Head of Physiotherapy as a critical link to change within physiotherapy education, the decision was made to wait until the new Head of Department was settled in their new position prior to facilitating the *Destiny* phase in a combined hui with roopu rangahau and physiotherapy educators and leaders. This hui is planned for Semester 1, 2024.

11.6 Recommendations for ongoing and future research

This research offers a variety of potentially useful directions in terms of future research opportunities. Evaluating the impact of the *Design* and *Destiny* phases of this research in 2-years' time, specifically seeking feedback from Māori students would be an appropriate next stage. However, there needs to be a way to measure the impact of this change for Māori students and educators in the future. Next steps could include exploring how to measure culturally related change in physiotherapy practice. Given the failings of the current education and health system to make changes that are responsive to Māori, we need to further investigate how to support the process of cultural change and consider ways of monitoring change once it is implemented. It would also be important to evaluate educators as they undergo change. Tracking their progress would be valuable, and understanding the challenges or enablers of change would be valuable knowledge in terms of facilitating change. Evaluation research that includes surveys and cases studies, for example, would be appropriate; however, such research has its own limitations in this cultural space.

The Māori-centred framework adopted in this research could be applied in other health educational settings. Creating further opportunities for collaboration is vital for change, as with creating space and monitoring spaces that are more reflective of te Tiriti o Waitangi. An important component of this would be mentoring non-Māori researchers in a cross-cultural research space. The lessons I have learnt through undertaking this research journey, relating to being Pākehā within a Māori centred research space, are varied and numerous. Some of these are identified in Appendix O. These could be shared with Pākehā and Tauiwi researchers in an attempt to support successful research practices in partnership with Māori within a Māori-centred research space.

Other ideas for future research include:

- Exploring the experiences of physiotherapy educators and clinical educators as they work towards cultural change within physiotherapy education.
- Evaluate Māori and Pākehā and Tauiwi co-participants perspectives of the research process and outcomes of the participatory action research process
- Continue this appreciative Māori-centred approach to explore how the experience of new graduate Māori physiotherapists in the health system may be improved.
- Explore whether culturally responsive educational initiatives translate into improved retention and success or improved outcomes for Māori health.

- Explore how culturally responsive pedagogical approaches to physiotherapy education translates into effective patient centred practices and impacts health equity.
- Conduct a Tiriti analysis of the physiotherapy programme.
- Measure efficacy of strategies to improve retention. Evaluate with pre- and post-implementation measures, using both quantitative and qualitative research.
- Conduct further research on best practice physiotherapy education to support Māori achieving success.

11.7 Conclusion

This research advances understandings of how Māori physiotherapy graduates experience physiotherapy education at AUT. Engaging collaboratively with roopu rangahau in a culturally adapted approach to appreciative inquiry created a shared space with which to identify what supported roopu rangahau to thrive and envisage physiotherapy education in the future as a space of thriving. Roopu rangahau gifted us with valuable insights regarding what mattered to them the most during their experience and their vision of an educational space that is welcoming and supports thriving for all students. Enhancing mauri serves both the inspiration and foundation for cultural change.

Centring Māori voice has led to recommendations for future improvements in physiotherapy education and other tertiary health programmes. Relationality underpins this philosophy of innovative cultural change within physiotherapy education. For meaningful transformation to occur, physiotherapy educators and leaders within the broader university environment will need to be responsive to orientating themselves towards the richness that cultural change brings into the educational space. Being open to kaupapa Māori principles of education will require courage, resilience, patience, and being open to a new way of designing and delivering physiotherapy education.

With the guidance of te Tiriti, successfully reframing physiotherapy education that is more reflective of Māori world views may have significant implications for Māori in terms of enhancing sense of belonging and well-being within this educational space. This new body of knowledge also adds to the possibility of creating a different future where everyone can thrive within physiotherapy education and the wider tertiary setting. Long term, outcomes of change could support the Māori physiotherapy workforce, and all new graduates may enter the workforce with the necessary foundations to contribute to health equity. In the future, this may have benefits for the health and well-being of society. Whether these suggestions for transformational change become a reality will depend on the willingness of the collective for change.

To bring closure to this thesis, I end with the following words shared by a member of the roopu rangahau. Here they express the importance of how they were made to feel during their physiotherapy journey. The sentiment expressed here underpins the motivation for change, and this will serve as a point of reflection as I seek to encourage others like myself to embark on a journey toward transformational cultural change within physiotherapy education at AUT, and the wider tertiary environment. Guided by a commitment to te Tiriti o Waitangi, an educational space of thriving will prevail, where the mauri of all physiotherapy students' is enhanced.

> The things that mattered to me the most were the types of people and the type of environment, and what you were learning at the time that allowed you to feel safe… it didn't really matter what people said or what they did but it was around how they made you feel. (R5)

References

Acosta, D., & Olsen, P. (2006). Meeting the needs of regional minority groups: the University of Washington's programs to increase the American Indian and Alaskan native physician workforce. *Academic Medicine, 81*(10), 863-870. https://doi.org/10.1097/01.ACM.0000238047.48977.05

Adams, M., Aylward, P., Heyne, N., Hull, C., Misan, G., Taylor, J., & Walker-Jeffreys, M. (2005). Integrated support for Aboriginal tertiary students in health-related courses: the Pika Wiya Learning Centre. *Australian Health Review, 29*(4), 482-488. https://doi.org/10.1071/ah050482

Airini, Brown, D., Curtis, E., Johnston, O., Luatua, F., O'Shea, M., Rakena, T. O., Reynolds, G., Sauni, P., Smith, A., & Su'a Huirua, T. (2010). *Success for all: Improving Maori and Pasifika student success in degree-level studies*. Crown. http://www.tlri.org.nz/sites/default/files/projects/9247-Airini-final-report.pdf

Airini, Collings, S., Conner, L., McPherson, K., Midson, B., & Wilson, C. (2011). Learning to be leaders in higher education: What helps or hinders women's advancement as leaders in universities. *Educational Management Administration & Leadership, 39*(1), 44-62. https://doi.org/https://doi.org/10.1177/1741143210383896

Alsop, P., & Kupenga, T. (2016). *Mauri ora: Wisdom from the Māori world*. Potton & Burton.

Anderson, I., Crengle, S., Kamaka, M. L., Chen, T. H., Palafox, N., & Jackson-Pulver, L. (2006). Indigenous health in Australia, New Zealand, and the Pacific. *Lancet, 367*(9524), 1775-1785. https://doi.org/10.1016/S0140-6736(06)68773-4

Anonson, J. M., Desjarlais, J., Nixon, J., Whiteman, L., & Bird, A. (2008). Strategies to support recruitment and retention of First Nations youth in baccalaureate nursing programs in Saskatchewan, Canada. *Journal of Transcultural Nursing, 19*(3), 274-283. https://doi.org/10.1177/1043659608317095

Asmar, C., Page, S., & Radloff, A. (2011). Dispelling myths: Indigenous students' engagement with university. *AUSSE Research Briefings, 10*, 1-16. https://research.acer.edu.au/cgi/viewcontent.cgi?article=1001&context=ausse

Aspden, T., Butler, R., Heinrich, F., Harwood, M., & Sheridan, J. (2017). Identifying key elements of cultural competence to incorporate into a New Zealand undergraduate pharmacy curriculum. *Pharmacy Education, 17*(1), 43-54.

Auckland University of Technology. (2018). *Strategic plan (AUT Directions to 2025)*. Retrieved July 18, 2023 from https://www.aut.ac.nz/about/auts-leadership/official-aut-publications

Auckland University of Technology. (2020). *Annual report 2020 Te Pūrongo ā-Tau*. https://www.aut.ac.nz/__data/assets/pdf_file/0008/503387/AUT-Annual-Report-2020-Digital-v3.pdf

Auckland University of Technology. (2023). *AUT year end student profile (unpublished raw data).* Microsoft Power BI.

Australian Government. (2021). *National preventative health strategy*. https://www.health.gov.au/sites/default/files/documents/2021/12/national-preventive-health-strategy-2021-2030_1.pdf

Bacal, K., Jansen, P., & Smith, K. (2006). Developing cultural competency in accordance with the Health Practitioners Competence Assurance Act. *New Zealand Family Physician, 33*(5), 305-309.

Barlow, C. (1991). *Tikanga whakaaro: Key concepts in Māori culture*. Oxford University Press.

Barnes, A. (2013). *What can Pākehā learn from engaging in kaupapa Māori educational research?* NZCER. https://www.nzcer.org.nz/system/files/Pakeha_Kaupapa_Maori_Research.pdf

Barnes, H. M. (2000). Kaupapa Māori: Explaining the ordinary. *Pacific Health Dialog, 7*(1), 13-16. https://www.ncbi.nlm.nih.gov/pubmed/11709875

Barnes, H. M., Gunn, T. R., Barnes, A. M., Muriwai, E., Wetherell, M., & McCreanor, T. (2017). Feeling and spirit: Developing an indigenous wairua approach to research. *Qualitative Research, 17*(3), 313-325. https://doi.org/https://doi.org/10.1177/1468794117696031

Barton, P., & Wilson, D. (2008). Te Kapunga Putohe (the restless hands): A Maori centred nursing practice model. *Nursing Praxis in New Zealand, 24*(2), 6-15. https://www.ncbi.nlm.nih.gov/pubmed/18810900

Beausoleil, E. (2021). Listening obliquely: Listening as norm and strategy for structural justice. *Contemporary Political Theory, 20*, 23-47. https://doi.org/https://doi.org/10.1057/s41296-020-00405-5

Bennett, S. (2003). *Cultural identity and academic achievement among Māori undergraduate university students* National Māori graduates of Psychology Symposium: Making a difference, Hamilton, New Zealand. https://researchcommons.waikato.ac.nz/bitstream/handle/10289/845/NMGPS_Paper_Bennett.pdf?isAllowed=y&sequence=1

Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research, 15*(2), 219-234. https://doi.org/https://doi.org/10.1177/1468794112468475

Berghan, G., Came, H., Coupe, N., Doole, C., Fay, J., McCreanor, T., & Simpson, T. (2017). *Te Tiriti o Waitangi-based practice in health promotion*. STIR.

Berryman, M., & Eley, E. (2019). Student belonging: Critical relationships and responsibilities. *International Journal of Inclusive Education, 23*(9), 985-1001. https://doi.org/https://doi.org/10.1080/13603116.2019.1602365

Berryman, M., Eley, E., & Copeland, D. (2017). Listening and learning from rangatahi Maori: The voices of Maori youth. *Critical Questions in Education, 8*(4), 476-494.

Bishop, R. (1996). Collaborative storytelling: Meeting Indigenous peoples' desires for self-determination in research. World Indigenous People's Conference, New Mexico.

Bishop, R. (2003). Changing power relations in education: Kaupapa Māori messages for'mainstream'education in Aotearoa/New Zealand. *Comparative education, 39*(2), 221-238.

Bishop, R. (2005). Changing Power Relations in Education: Kaupapa Māori Messages for " Mainstream" Education in Aotearoa/New Zealand. *Counterpoints, 275*, 253-269.

Bishop, R. (2011). Freeing ourselves from neo-colonial domination in research. In R. Bishop (Ed.), *Freeing ourselves* (pp. 1-30). Springer.

Bishop, R., & Berryman, M. (2009). The Te Kotahitanga effective teaching profile. *Set: Research Information for Teachers, 2*(2), 27-33.

Bishop, R., & Berryman, M. (2010). Te Kotahitanga: Culturally responsive professional development for teachers. *Teacher Development, 14*(2), 173-187. https://doi.org/https://doi.org/10.1080/13664530.2010.494497

Bishop, R., Berryman, M., Cavanagh, T., & Teddy, L. (2009). Te kotahitanga: Addressing educational disparities facing Māori students in New Zealand. *Teaching and Teacher Education, 25*(5), 734-742. https://doi.org/https://doi.org/10.1016/j.tate.2009.01.009

Bishop, R., & Glynn, T. (1999). Researching in Maori contexts: An interpretation of participatory consciousness. *Journal of Intercultural Studies, 20*(2), 167-182.

Bishop, R., Ladwig, J., & Berryman, M. (2014). The centrality of relationships for pedagogy: The whanaungatanga thesis. *American Educational Research Journal, 51*(1), 184-214. https://www.jstor.org/stable/24546678

Blackboard collaborate. (2020). Retrieved August, 20 from https://www.class.com/collaborate/

Bleakley, A., Brice, J., & Bligh, J. (2008). Thinking the post-colonial in medical education. *Medical Education, 42*(3), 266-270. https://doi.org/10.1111/j.1365-2923.2007.02991.x

Boasa-Dean, T. (2019). *Mauri*. Te Kaa Igniting your Maori cultural competency. https://www.youtube.com/watch?v=XMlmv-Z_7ko

Bowen, J., & Hinze, A. (2020). Participatory design in Māori cultural contexts. 17th IFIP TC. 13 International Conference on Human-Computer Interaction (INTERACT 2019), Cyprus.

Brady, B., Veljanova, I., & Chipchase, L. (2016). Culturally informed practice and physiotherapy. *Journal of Physiotherapy, 62*(3), 121-123. https://doi.org/10.1016/j.jphys.2016.05.010

Bramley, D., Hebert, P., Tuzzio, L., & Chassin, M. (2005). Disparities in indigenous health: A cross-country comparison between New Zealand and the United States. *American Journal of Public Health, 95*(5), 844-850. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1449267/pdf/0950844.pdf

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. https://doi.org/https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology, 18*(3), 1-25. https://doi.org/https://doi.org/10.1080/14780887.2020.1769238

Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2019). Thematic analysis. In P. Liamputtong (Ed.), *Handbook of research methods in health social sciences* (pp. 843-860). Springer Singapore. https://doi.org/https://doi.org/10.1007/978-981-10-5251-4_103

Bright, F. A., Kayes, N. M., Worrall, L., & McPherson, K. M. (2015). A conceptual review of engagement in healthcare and rehabilitation. *Disability and Rehabilitation, 37*(8), 643-654. https://doi.org/10.3109/09638288.2014.933899

Bright, F. A. S., Ibell-Roberts, C., & Wilson, B. J. (2023). Psychosocial well-being after stroke in Aotearoa New Zealand: A qualitative metasynthesis. *Disability and Rehabilitation*, 1-14. https://doi.org/10.1080/09638288.2023.2212178

Bristowe, Z., Baxter, J., Fruean, S., & Latu, A. (2016). *Weaving our worlds: Maori learner outcomes from an equity-focused & strengthsbased programme in health sciences*. Ako Aotearoa. https://ako.ac.nz/assets/Knowledge-centre/NPF-14-006-Weaving-our-worlds/RESEARCH-REPORT-Weaving-Our-Worlds.pdf

British Colombia Government. (2017). *Promote, protect, prevent: Our health begins here*. https://www.health.gov.bc.ca/library/publications/year/2017/BC-guiding-framework-for-public-health-2017-update.pdf

Brougham, D., & Haar, J. M. (2013). Collectivism, cultural identity and employee mental health: A study of New Zealand Māori. *Social Indicators Research, 114*, 1143-1160. https://doi.org/https://doi.org/10.1007/s11205-012-0194-6

Buissink, N., Diamond, P., Hallas, J., Swann, J., & Sciascia, A. D. (2017). Challenging a measured university from an indigenous perspective: Placing 'manaaki' at the heart of our professional development programme. *Higher Education Research & Development, 36*(3), 569-582. https://doi.org/https://doi.org/10.1080/07294360.2017.1288706

Bukamal, H. (2022). Deconstructing insider–outsider researcher positionality. *British Journal of Special Education, 49*(3), 327-349. https://doi.org/https://doi.org/10.1111/1467-8578.12426

Bushe, G. (2001). Five theories of change embedded in appreciative inquiry. In D. Cooperrider, P. Sorenson, D. Whitney, & T. Yeager (Eds.), *Appreciative Inquiry: An emerging direction for organization development* (Vol. 17, pp. 117-127). Stripes. https://www.gervasebushe.ca/ai5.pdf

Bushe, G. (2007). Appreciative inquiry is not about the positive. *OD Practitioner, 39*(4), 33-38. http://www.wellcoach.com/memberships/images/AI_Positive.pdf

Bushe, G., & Avital, M. (2009). Appreciative Inquiry as a research method. *Innovations in Social Science Research Methods*, 48-49.

Bushe, G., & Kassam, A. F. (2005). When is appreciative inquiry transformational? A meta-case analysis. *The Journal of Applied Behavioral Science, 41*(2), 161-181.

Caldwell, J. S., McNair, P. J., & Williams, M. (2003). The effects of repetitive motion on lumbar flexion and erector spinae muscle activity in rowers. *Clinical Biomechanics (Bristol, Avon), 18*(8), 704-711. https://doi.org/10.1016/s0268-0033(03)00117-7

Came, H. (2013). Doing research in Aotearoa: A Pākehā exemplar of applying Te Ara Tika ethical framework. *Kotuitui: New Zealand Journal of Social Sciences Online, 8*(1-2), 64-73. https://www.tandfonline.com/doi/full/10.1080/1177083X.2013.841265

Came, H., Kidd, J., Heke, D., & McCreanor, T. (2021). Te Tiriti o Waitangi compliance in regulated health practitioner competency documents in Aotearoa. *New Zealand Medical Journal, 134*(1535), 35-43. https://www.ncbi.nlm.nih.gov/pubmed/34012139

Came, H., & McCreanor, T. (2015). Pathways to transform institutional (and everyday) racism in New Zealand. *A Journal of Social Anthropology and Cultural Studies, 12*(2), 24-48. https://doi.org/https://doi.org/10.11157/sites-vol12iss2id290

Came, H., McCreanor, T., Doole, C., & Simpson, T. (2017). Realising the rhetoric: Refreshing public health providers' efforts to honour Te Tiriti o Waitangi in New Zealand. *Ethnicity and Health, 22*(2), 105-118. https://doi.org/10.1080/13557858.2016.1196651

Came, H., & O'Sullivan, D. (2021). New Māori health authority needs independence and accountability. *Kai Tiaki: Nursing New Zealand, 27*(4), 16-17.

Came, H., O'Sullivan, D., Kidd, J., & McCreanor, T. (2020a). The Waitangi Tribunal's WAI 2575 Report: Implications for decolonizing health systems. *Health and Human Rights, 22*(1), 209-220. https://www.ncbi.nlm.nih.gov/pubmed/32669802

Came, H., O'Sullivan, D., & McCreanor, T. (2020b). Introducing critical Tiriti policy analysis through a retrospective review of the New Zealand Primary Healthcare Strategy. *Ethnicities, 20*(3), 434-456. https://doi.org/10.1177/1468796819896466

Cameron, M., Fogarty-Perry, B., & Piercy, G. (2022). The impacts of the COVID-19 pandemic on higher education students in New Zealand. *Journal of Open, Flexible and Distance Learning, 26*(1), 42-62. https://doi.org/https://doi.org/10.61468/jofdl.v26i1.515

Cardno, C. E. M. (2003). *Action research: A developmental approach*. New Zealand Council for Educational Research.

Carlson, T., Barnes, H. M., Reid, S., & McCreanor, T. (2016). Whanaungatanga: A space to be ourselves. *Journal of Indigenous Wellbeing, 2*(2), 44-59. https://doi.org/https://journalindigenouswellbeing.co.nz/media/2022/01/51.44.Whanaungatanga-A-space-to-be-ourselves.pdf

Carpenter, V. M., & McMurchy-Pilkington, C. (2008). Cross-cultural researching: Māori and Pākehā in te whakapakari. *Qualitative Research, 8*(2), 179-196. https://doi.org/https://doi.org/10.1177/1468794107087480

Carter, B. (2006). 'One expertise among many'—working appreciatively to make miracles instead of finding problems: Using appreciative inquiry as a way of reframing research. *Journal of Research in Nursing, 11*(1), 48-63. https://doi.org/https://doi.org/10.1177/1744987106056488

Carter, J. (2010). Protocols, particularities, and problematising Indigenous 'engagement'in community-based environmental management in settled Australia. *Geographical Journal, 176*(3), 199-213. https://doi.org/http://doi.org/10.1111/j.1475-4959.2010.00355.x

Cavanagh, T., Macfarlane, A., Glynn, T., & Macfarlane, S. (2012). Creating peaceful and effective schools through a culture of care. *Discourse: Studies in the Cultural Politics of Education, 33*(3), 443-455. https://doi.org/https://doi.org/10.1080/01596306.2012.681902

Chachine, I. E. (2022). Values-based participatory action research in development ethics. In G. Espedal, B. Jelstad Løvaas, S. Sirris, & A. Wæraas (Eds.), *Researching values* (pp. 279-297). Springer International Publishing. https://doi.org/10.1007/978-3-030-90769-3_16

Charles, E. (2019). Decolonizing the curriculum. *Insights, 32*(1), 24.

Chilisa, B. (2012). *Indigenous research methodologies*. SAGE.

Chittick, H., Manhire, K., & Roberts, J. (2019). Supporting success for Maori undergraduate nursing students in Aotearoa/New Zealand. *Kai Tiaki Nursing Research, 10*(1), 15-21.

Chouinard, J. A., & Cram, F. (2020). The Indigenous context. In J. A. Chouinard & F. Cram (Eds.), *Culturally responsive approaches to evaluation: Empirical implications for theory and practice* (pp. 39-68). SAGE. https://doi.org/https://doi.org/10.4135/9781506368559

Coghlan, C. M., Mallinger, H., McFadden, A., Richard, J., Stern, A., & Norman, K. E. (2017). Demographic characteristics of applicants to, and students of, Ontario physiotherapy education programs, 2004-2014: Trends in gender, geographical location, Aboriginal identity, and immigrant status. *Physiotherapy Canada, 69*(1), 83-93. https://doi.org/10.3138/ptc.2016-23E

Cojocaru, D. (2012). Appreciative Inquiry and organisational change. Applications in Medical Services. *Revista de Cercetare şi Intervenţie Socială 38*, 122-131.

Cook, T. (2018). Celebrating, interrogating and critiquing action research: theories and practices across continents, countries and contexts. *Educational Action Research, 26*(5), 661-665. https://doi.org/https://doi.org/10.1080/09650792.2018.1539319

Cooperrider, D. (2012). *What is appreciative inquiry?* https://www.davidcooperrider.com/ai-process/

Cooperrider, D., Whitney, D., & Stavros, J. (2008). *Appreciative inquiry handbook: For leaders of change* (2nd ed.). Crown Custom Publishing.

Cooperrider, D. L., Barrett, F., & Srivastva, S. (1995). *Social construction and appreciative inquiry: A journey in organizational theory*. Avebury/Ashgate Publishing Co.

Cormack, D., Harris, R., Stanley, J., Lacey, C., Jones, R., & Curtis, E. (2018). Ethnic bias amongst medical students in Aotearoa/New Zealand: Findings from the Bias and Decision Making in Medicine (BDMM) study. *Public Library of Science, 13*(8), e0201168. https://doi.org/10.1371/journal.pone.0201168

Cram, F. (1993). *Ethics in Maori research: Working Paper* [Conference Contribution]. https://hdl.handle.net/10289/3316

Cram, F. (2010). Appreciative inquiry. *Mai Review, 3*(1), 1-13.

Cram, F. (2011). *Whānau ora and action research. A paper prepared for Te Puni Kōkiri, Wellington*. https://www.katoa.net.nz/kaupapa-maori/action-research

Cram, F. (2017). *Kaupapa Māori health research* (Vol. 30). Springer.

Cram, F. (2019). Kaupapa Māori health research. In P. Liamputtong (Ed.), *Handbook of research methods in health social sciences* (pp. 1507-1524). Springer Singapore. https://doi.org/10.1007/978-981-10-5251-4_30

Cram, F., Phillips, H., Tipene-Matua, B., Parsons, M., & Taupo, K. (2004). A 'parallel process'? Beginning a constructive conversation about a Mäori methodology. *Journal of Bioethical Inquiry, 1*(1), 14-19. https://doi.org/https://doi.org/10.1007/BF02448902

Cram, F., Vette, M., Wilson, M., Vaithianathan, R., Maloney, T., & Baird, S. (2018). He awa whiria—braided rivers: Understanding the outcomes from Family Start for Māori. *Evaluation Matters—He Take Tō Te Aromatawai, 4*(1), 165-206.

Crotty, M. (1998). *The foundations of social research: meaning and perspective in the research process*. SAGE.

Curtis, E. (2016). Indigenous positioning in health research: The importance of Kaupapa Māori theory-informed practice. *AlterNative: An International Journal of Indigenous Peoples, 12*(4), 396-410. https://doi.org/httpps://doi.org/10.20507/AlterNative.2016.12.4.5

Curtis, E., Jones, R., Tipene-Leach, D., Walker, C., Loring, B., Paine, S.-J., & Reid, P. (2019). Why cultural safety rather than cultural competency is required to achieve health equity: A

literature review and recommended definition. *International Journal for Equity in Health, 18*(1), 174-191. https://doi.org/https://doi.org/10.1186/s12939-019-1082-3

Curtis, E., Jones, R., Willing, E., Anderson, A., Paine, S.-J., Herbert, S., Loring, B., Dalgic, G., & Reid, P. (2023). Indigenous adaptation of a model for understanding the determinants of ethnic health inequities. *Discover Social Science and Health, 3*(1), 10.

Curtis, E., & Reid, P. (2013). Indigenous health workforce development: challenges and successes of the Vision 20:20 programme. *ANZ Journal of Surgery, 83*(1-2), 49-54. https://doi.org/10.1111/ans.12030

Curtis, E., Reid, P., & Jones, R. (2014). Decolonising the Academy: The process of re-presenting indigenous health in tertiary teaching and learning. In *Māori and Pasifika higher education horizons* (pp. 147-165). Emerald Group Publishing.

Curtis, E., Townsend, S., & Airini. (2012a). Improving indigenous and ethnic minority student success in foundation health study. *Teaching in Higher Education, 17*(5), 589-602. https://doi.org/https://doi.org/10.1080/13562517.2012.658559

Curtis, E., Wikaire, E., Jiang, Y., McMillan, L., Loto, R., Airini, & Reid, P. (2015a). Quantitative analysis of a Maori and Pacific admission process on first-year health study. *BMC Medical Education, 15*, 196. https://doi.org/10.1186/s12909-015-0470-7

Curtis, E., Wikaire, E., Jiang, Y., McMillan, L., Loto, R., Airini, & Reid, P. (2015b). A tertiary approach to improving equity in health: Quantitative analysis of the Maori and Pacific Admission Scheme (MAPAS) process, 2008-2012. *International Journal for Equity in Health, 14*(1), 7. https://doi.org/10.1186/s12939-015-0133-7

Curtis, E., Wikaire, E., Lualua-Aati, T., Kool, B., Nepia, W., Ruka, M., Honey, M., Kelly, F., & Poole, P. (2012b). Tatou tatou/sucess for all: Improving Māori student sucess. https://ako.ac.nz/assets/Knowledge-centre/NPF-08-002-Tatou-Tatou-Success-for-all-Improving-Maori-student-success/RESEARCH-REPORT-Tatou-Tatou-Success-For-All-Improving-Maori-Student-Success.pdf

Curtis, E., Wikaire, E., Stokes, K., & Reid, P. (2012c). Addressing indigenous health workforce inequities: A literature review exploring 'best' practice for recruitment into tertiary health programmes. *International Journal for Equity in Health, 11*, 13. https://doi.org/10.1186/1475-9276-11-13

Davis, G., & Came, H. (2022). A purakau analysis of institutional barriers facing Maori occupational therapy students. *Australian Occupational Therapy Journal, 69*(4), 414-423. https://doi.org/10.1111/1440-1630.12800

Dell, K., Spiller, C., & Staniland, N. (2021). Do Indigenous metaphors have universal applicability? Learnings from Maori in New Zealand. In A. Otenblad (Ed.), *The Oxford Handbook of Metaphors in Organizations*. Oxford University Press.

Dematteo, D., & Reeves, S. (2011). A critical examination of the role of appreciative inquiry within an interprofessional education initiative. *Journal Of Interprofessional Care, 25*(3), 203-208. https://doi.org/https://doi.org/10.3109/13561820.2010.504312

Denzin, N. K., Lincoln, Y. S., & Smith, L. T. (2008). *Handbook of critical and indigenous methodologies*. SAGE.

DeSouza, R. (2008). Wellness for all: The possibilities of cultural safety and cultural competence in New Zealand. *Journal of Research in Nursing, 13*(2), 125-135. https://doi.org/https://doi.org/10.1177/1744987108088637

Dickert, N., & Sugarman, J. (2005). Ethical goals of community consultation in research. *American Journal of Public Health, 95*(7), 1123-1127. https://doi.org/10.2105/AJPH.2004.058933

Durie, M. (1994). *Whaiora: Māori health development*. Oxford University Press.

Durie, M. (2001). *Mauri ora: The dynamics of Māori health*. Oxford University Press.

Durie, M. (2004). Understanding health and illness: research at the interface between science and indigenous knowledge. *International Journal of Epidemiology, 33*(5), 1138-1143. https://doi.org/https://doi.org/10.1093/ije/dyh250

Durie, M. (2005a). Indigenous health reforms: Best health outcomes for Māori in New Zealand. Unleashing Innovation in Healthcare: Alberta's Symposium on Health Calgary.

Durie, M. (2005b). *Indigenous higher education: Māori experience in New Zealand.* An address to Australian Higher Education Advisory Council, Canberra, Australia. https://www.massey.ac.nz/massey/learning/departments/centres-research/te-mata-o-te-tau/publications/publications_home.cfm

Durie, M. (2009). Towards social cohesion: The indigenisation of higher education in New Zealand. Vice Chancellor's Forum, Kuala Lumpur, Malaysia,

Durie, M. (2021). Mauri ora: The metrics of flourishing [Presentation]. Auckland.

Durie, M., Hoskins, T. K., & Jones, A. (2012). Kaupapa Maori: shifting the social. *New Zealand Journal of Educational Studies, 47*(2), 21.

Durie, M. H. (1985). A Maori perspective of health. *Social Science and Medicine, 20*(5), 483-486. https://doi.org/10.1016/0277-9536(85)90363-6

Dutta, M. J. (2008). *Communicating health: A culture-centered approach* (1st ed.). Polity Press.

Education Review Office. (2016). *Evaluations indicators and frameworks*. Retrieved September 12, 2018 from http://www.ero.govt.nz/publications/category/evaluation-indicators-and-frameworks

Egan, J. (2018). *Thrive. Accentuating the positive in the emergency department* [Doctoral thesis Auckland University of Technology]. Auckland. https://openrepository.aut.ac.nz/handle/10292/11739

Eketone, A. (2008). Theoretical underpinnings of Kaupapa Maori directed practice. *Mai Review*(1), 1-11. https://ourarchive.otago.ac.nz/bitstream/handle/10523/7084/Eketone(2008)TheoreticalUnderpinningsKaupapaMaori.pdf?sequence=1&isAllowed=y

Elder, H. (2020). *Aroha: Maori wisdom for a contented life lived in harmony with our planet*. Random House.

Espiner, E., Paine, S. J., Weston, M., & Curtis, E. (2021). Barriers and facilitators for Maori in accessing hospital services in Aotearoa New Zealand. *New Zealand Medical Journal, 134*(1546), 47-58. https://www.ncbi.nlm.nih.gov/pubmed/34855733

Ewen, S., Mazel, O., & Knoche, D. (2012). Exposing the hidden curriculum influencing medical education on the health of Indigenous people in Australia and New Zealand: the role of the Critical Reflection Tool. *Academic Medicine, 87*(2), 200-205. https://doi.org/10.1097/ACM.0b013e31823fd777

Farwell, P. (1995). Aristotle and the Complete Life. *History of Philosophy Quarterly, 12*(3), 247-263.

Fernandopulle, N. (2021). To what extent does hierarchical leadership affect healthcare outcomes? *Medical Journal of the Islamic Republic of Iran, 35*, 117. https://doi.org/https://doi.org/10.47176/mjiri.35.117

Foxall, D. (2013). Barriers in education of indigenous nursing students: A literature review. *Nursing Praxis in New Zealand, 29*(3), 31-37. https://www.ncbi.nlm.nih.gov/pubmed/24575608

Francis-Cracknell, A., Murray, M., Palermo, C., Atkinson, P., Gilby, R., & Adams, K. (2019). Indigenous health curriculum and health professional learners: A systematic review. *Medical Teacher, 41*(5), 525-531. https://doi.org/10.1080/0142159X.2018.1497785

Gall, A., Anderson, K., Howard, K., Diaz, A., King, A., Willing, E., Connolly, M., Lindsay, D., & Garvey, G. (2021). Wellbeing of Indigenous peoples in Canada, Aotearoa (New Zealand) and the United States: A systematic review. *International Journal of Environmental Research and Public Health, 18*(11), 5832. https://doi.org/10.3390/ijerph18115832

Gibbs, M. (2001). Toward a strategy for undertaking cross-cultural collaborative research. *Society & Natural Resources, 14*(8), 673-687. https://doi.org/https://doi.org/10.1080/08941920120547

Glynn, T., Cowie, B., Otrel-Cass, K., & Macfarlane, A. (2010). Culturally responsive pedagogy: Connecting New Zealand teachers of science with their Māori students. *The Australian Journal of Indigenous Education, 39*(1), 118-127. https://doi.org/https://doi.org/10.1375/S1326011100000971

Goold, S. (2001). Transcultural nursing: can we meet the challenge of caring for the Australian Indigenous person? *Journal of Transcultural Nursing, 12*(2), 94-99. https://doi.org/https://doi.org/10.1177/104365960101200202

Goold, S., Turale, S., Miller, M., & Usher, K. (2002). Gettin em n keepin em'. Report of the Indigenous Nursing Education Working Group. *Commonwealth of Australia*.

Gorinski, R., & Abernethy, G. (2007). Maori student retention and success: Curriculum, pedagogy and relationships. In T. Townsend & R. Bates (Eds.), *Handbook of teacher education* (pp. 229-240). Springer.

Graham, R., & Masters-Awatere, B. (2020). Experiences of Maori of Aotearoa New Zealand's public health system: A systematic review of two decades of published qualitative research. *Australian and New Zealand Journal of Public Health, 44*(3), 193-200. https://doi.org/10.1111/1753-6405.12971

Grant, S., & Humphries, M. (2006). Critical evaluation of appreciative inquiry: Bridging an apparent paradox. *Action Research, 4*(4), 401-418. https://doi.org/https://doi.org/10.1177/1476750306070103

Haitana, T., Pitama, S., Cormack, D., Clarke, M., & Lacey, C. (2020). The transformative potential of kaupapa Māori research and Indigenous methodologies: Positioning Māori patient experiences of mental health services. *International Journal of Qualitative Methods, 19*. https://doi.org/https://doi.org/10.1177/1609406920953752

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

Harris, R., Tobias, M., Jeffreys, M., Waldegrave, K., Karlsen, S., & Nazroo, J. (2006). Effects of self-reported racial discrimination and deprivation on Maori health and inequalities in New Zealand: Cross-sectional study. *Lancet, 367*(9527), 2005-2009. https://doi.org/https://doi.org/10.1016/S0140-6736(06)68890-9

Hart, M. A. (2010). Indigenous worldviews, knowledge, and research: The development of an indigenous research paradigm. *Journal of Indigenous Social Development, 1*(1A).

Health and Disability System Review. (2020). *Health and disability system review-final report-Pūrongo Whakmutunga*. https://www.health.govt.nz/system/files/documents/publications/health-disability-system-review-final-report.pdf

Health Quality & Safety Commission New Zealand. (2019). *A window on the quality of Aotearoa New Zealand's healthcare 2019.* https://www.hqsc.govt.nz/assets/Our-data/Publications-resources/Window_2019_web_final-v2.pdf

Health Research Council of New Zealand. (2019). *Māori health advancement guidelines*. Retrieved September 30, 2021 from https://www.hrc.govt.nz/resources/maori-health-advancement-guidelines

Healy, S., Huygens, I., & Murphy, T. (2012). *Ngapuhi Speaks: He Whakaputanga and Te Tiriti o Waitangi: Independent report on Ngapuhi Nui Tonu claim*. Te Kawariki & Network Waitangi Whangarei.

Heke, D., Wilson, D., & Came, H. (2019). Shades of competence? A critical analysis of the cultural competencies of the regulated-health workforce in Aotearoa New Zealand. *International Journal for Quality in Health Care, 31*(8), 606-612. https://doi.org/https://doi.org/10.1093/intqhc/mzy227

Hennessy, J. (2015). *The contribution of the mental health support worker to the mental health services in New Zealand: an appreciative inquiry approach* [Doctor of Philosophy, Auckland University of Technology]. Auckland. https://hdl.handle.net/10292/9192

Henry, E., & Pene, H. (2001). Kaupapa Maori: Locating indigenous ontology, epistemology and methodology in the academy. *Organization, 8*(2), 234-242. https://doi.org/https://doi.org/10.1177/1350508401082009

Henry, E., & Wolfgramm, R. (2018). Relational leadership–An indigenous Māori perspective. *Leadership, 14*(2), 203-219. https://doi.org/https://doi.org/10.1177/1742715015616282

Hetaraka, M. (2019). A kaupapa Māori analysis of tātaiako: Considering Māori education policy. *MAI Journal: A New Zealand Journal of Indigenous Scholarship, 8*(2), 159-171. https://doi.org/10.20507/MAIJournal.2019.8.2.5

Hiha, A. A. (2016). Kaupapa Māori methodology: Trusting the methodology through thick and thin. *The Australian Journal of Indigenous Education, 45*(2), 129-138. https://doi.org/https://doi.org/10.1017/jie.2015.30

Hobbs, M., Ahuriri-Driscoll, A., Marek, L., Campbell, M., Tomintz, M., & Kingham, S. (2019). Reducing health inequity for Maori people in New Zealand. *Lancet, 394*(10209), 1613-1614. https://doi.org/10.1016/S0140-6736(19)30044-3

Hoskins, T. K., & Jones, A. (2022). Indigenous inclusion and indigenising the University. *New Zealand Journal of Educational Studies*, 1-16.

Hotere-Barnes, A. (2015). Generating 'Non-stupid optimism': Addressing Pākehā paralysis in Māori educational research. *New Zealand Journal of Educational Studies, 50*(1), 39-53. https://doi.org/https://doi.org/10.1007/s40841-015-0007-y

Hudson, M. (2004). *He Matatika Māori: Māori and ethical review in health research [*Master's thesis, Auckland University of Technology]. Auckland. https://openrepository.aut.ac.nz/server/api/core/bitstreams/0c031dff-db95-4d88-a4bd-effb430cf54b/content

Hudson, M., Milne, M., Reynolds, P., Russell, K., & Smith, B. (2010). *Te ara tika guidelines for Māori research ethics: A framework for researchers and ethics committee members*. https://www.hrc.govt.nz/sites/default/files/2019-06/Resource%20Library%20PDF%20-%20Te%20Ara%20Tika%20Guidelines%20for%20Maori%20Research%20Ethics_0.pdf

Hudson, M. L., & Ahuriri-Driscoll, A. L. (2005). A Māori ethical framework: The bridge between tikanga Māori and ethical review. Proceedings of the indigenous knowledges conference reconciling academic priorities with indigenous realities, Wellington.

Hudson, M. L., & Russell, K. (2009). The Treaty of Waitangi and research ethics in Aotearoa. *Journal of Bioethical Inquiry, 6*(1), 61-68. https://doi.org/https://doi.org/10.1007/s11673-008-9127-0

Huygens, I. (2011). Developing a decolonisation practice for settler colonisers: A case study from Aotearoa New Zealand. *Settler Colonial Studies, 1*(2), 53-81. https://doi.org/https://doi.org/10.1080/2201473X.2011.10648812

Jackson, M. (2011). Hui reflections: Research and the consolations of bravery. *Kei tua te pae hui proceedings*, (pp. 71-78). https://www.nzcer.org.nz/nzcerpress/kei-tua-o-te-pae-hui-proceedings

Jackson, M. (2020). Where to next? Decolonisation and the stories in the land. In B. Elkington, M. Jackson, R. Kiddle, O. Mercier, M. Ross, J. Smeaton, & A. Thomas (Eds.), *Imagining decolonisation* (pp. 133-174). Bridget Williams Books. https://doi.org/https://doi.org/10.7810/9781988545783

Jenkin, C. (2020). Appreciative inquiry mentoring to implement the early childhood bicultural curriculum. In M. Gasper (Ed.), *Mentoring and coaching in early childhood education* (pp. 115-124). Bloomsberry Academic.

Johnson, P. C. (2013). Transcending the polarity of light and shadow in appreciative inquiry: An appreciative exploration of practice. In *Organizational Generativity: The appreciative inquiry summit and a scholarship of transformation* (Vol. 4, pp. 189-207). Emerald Group Publishing. https://doi.org/https://doi.org/10.1108/s1475-9152(2013)0000004007

Jones, A. (2012). Dangerous liaisons: Pakeha, kaupapa Maori, and educational research. *New Zealand Journal of Educational Studies, 47*(2), 100.

Jones, R. (2011). Te Ara: A pathway to excellence in indigenous health teaching and learning. *Focus on Health Professional Education: A Multi-Disciplinary Journal, 13*(1), 23.

Jones, R., Crengle, S., & McCreanor, T. (2006). How tikanga guides and protects the research process: Insights from the Hauora Tane project. *Social Policy Journal of New Zealand, 29*, 60-77.

Jones, R., Crowshoe, L., Reid, P., Calam, B., Curtis, E., Green, M., Huria, T., Jacklin, K., Kamaka, M., Lacey, C., Milroy, J., Paul, D., Pitama, S., Walker, L., Webb, G., & Ewen, S. (2019). Educating for Indigenous health equity: An international consensus statement. *Academic Medicine, 94*(4), 512-519. https://doi.org/https://doi.org/10.1097/ACM.0000000000002476

Jones, R., Pitama, S., Huria, T., Poole, P., McKimm, J., Pinnock, R., & Reid, P. (2010). Medical education to improve Maori health. *New Zealand Medical Journal, 123*(1316), 113-122. https://www.ncbi.nlm.nih.gov/pubmed/20648107

Kidd, J., Came, H., Doole, C., & Rae, N. (2022). A critical analysis of te Tiriti o Waitangi application in primary health organisations in Aotearoa New Zealand: Findings from a nationwide survey. *Health & Society Care in the Community, 30*(1), e105-e112. https://doi.org/10.1111/hsc.13417

Kingi, T. K. R., Durie, M., Elder, H., Tapsell, R., Lawrence, M., & Bennett, S. (2017). *Maea te toi ora: Maori health transformations*. Huia Publishers.

Korpi, H., Peltokallio, L., & Piirainen, A. (2018). Problem-based learning in professional studies from the physiotherapy students' perspective. *Interdisciplinary Journal of Problem-Based Learning, 13*(1). https://doi.org/https://doi.org/10.7771/1541-5015.1732

Lacey, C., Huria, T., Beckert, L., Gilles, M., & Pitama, S. (2011). The hui process: A framework to enhance the doctor-patient relationship with Maori. *New Zealand Medical Journal, 124*(1347), 72-78. https://www.ncbi.nlm.nih.gov/pubmed/22237570

Loftin, C., Newman, S. D., Dumas, B. P., Gilden, G., & Bond, M. L. (2012). Perceived barriers to success for minority nursing students: An integrative review. *ISRN Nursing, 2012*, 806543. https://doi.org/10.5402/2012/806543

Lourie, M., & Rata, E. (2014). A critique of the role of culture in Maori education. *British Journal of Sociology of Education, 35*(1), 19-36. https://doi.org/https://doi.org/10.1080/01425692.2012.736184

Ludema, J. D., & Fry, R. E. (2008). The practice of appreciative inquiry. In *The Sage handbook of action research: Participative inquiry and practice* (pp. 280-296). SAGE.

Lydster, C., & Murray, J. (2019). Understanding the challenges, yet focusing on the successes: an investigation into Indigenous University students' academic success. *The Australian Journal of Indigenous Education, 48*(2), 107-118. https://doi.org/https://doi.org/10.1017/jie.2018.15

Mace, J., Hocking, C., & Waring, M. (2014). Appreciative inquiry: Enabling occupation through the envisioning mind. In S. Nayer & M. Stanley (Eds.), *Qualitative research methodologies for occupational science and therapy* (pp. 190-207). Routledge.

Macfarlane, A., Glynn, T., Cavanagh, T., & Bateman, S. (2007). Creating culturally-safe schools for Māori students. *The Australian Journal of Indigenous Education, 36*(1), 65-76. https://hdl.handle.net/10289/3297

Macfarlane, A., & Macfarlane, S. (2018). Toitū te Mātauranga: Valuing culturally inclusive research in contemporary times. *Psychology Aotearoa (Jubilee Edition), 10*(2), 71-76.

Macfarlane, A., & Macfarlane, S. (2019). Listen to culture: Māori scholars' plea to researchers. *Journal of the Royal Society of New Zealand, 49*(sup1), 48-57.

Macfarlane, A., Macfarlane, S., Derby, M., & Webber, M. (2018). Bridges to success for Māori: An aspirational lens. *Psychology Aotearoa, 10*(1), 11-15.

https://www.psychology.org.nz/journal-archive/Bridges-to-success-for-M%C4%81ori-An-aspirational-lens.pdf

Macfarlane, A., Webber, M., McRae, H., & Cookson-Cox, C. (2014). *Ka Awatea: An iwi case study of Māori students' success*. Te Rū Rangahau, University of Canterbury.

Macfarlane, A. H. (2004). *Kia hiwa ra: Listen to culture: Māori students' plea to educators*. New Zealand Council for Educational Research.

Macfarlane, S., Macfarlane, A., & Gillon, G. (2015). Sharing the food baskets of knowledge: Creating space for a blending of streams. In A. Macfarlane, S. Macfarlane, & M. Webber (Eds.), *Sociocultural realities: Exploring new horizons* (pp. 52-67). Canterbury University Press.

Mahuika, R. (2008). Kaupapa Māori theory is critical and anti-colonial. *Mai Review, 3*(4), 1-16.

Main, C., McCallin, A., & Smith, N. (2006). Cultural safety and cultural competence: What does this mean for physiotherapists? *New Zealand Journal of Physiotherapy, 34*(3), 160-167.

Mana Taiohi. (2022). *Mana*. Retrieved January 5, 2023 from https://arataiohi.org.nz/mana-taiohi-principle/mana/

Manfra, M. M. (2019). Action research and systematic, intentional change in teaching practice. *Review of Research in Education, 43*(1), 163-196. https://doi.org/https://doi.org/10.3102/0091732X18821132

Margaret, J. (2010). *Working as allies*. Winston Churchill Memorial Trust.

Martel, R., Shepherd, M., & Goodyear-Smith, F. (2022). He awa whiria- A "braided river": An Indigenous Māori approach to mixed methods research. *Journal of Mixed Methods Research*, 1558689820984028. https://doi.org/https://doi.org/10.1177/1558689820984028

Martin, D., & Seguire, M. (2013). Creating a path for indigenous student success in baccalaureate nursing education. *Journal of Nursing Education, 52*(4), 205-209. https://doi.org/10.3928/01484834-20130314-01

Matike Mai Aotearoa. (2016). *He whakaaro here whakaumu mō Aotearoa: The report of Matike mai Aotearoa.* https://nwo.org.nz/wp-content/uploads/2018/06/MatikeMaiAotearoa25Jan16.pdf

Mayeda, D. T., Keil, M., Dutton, H. D., & Ofamo'Oni, I.-F.-H. (2014). "You've gotta set a precedent": Māori and Pacific voices on student success in higher education.

AlterNative: An International Journal of Indigenous Peoples, 10(2), 165-179. https://doi.org/https://doi.org/10.1177/117718011401000206

McAllister, T., Naepi, S., Walker, L., Gillon, A., Clark, P., Lambert, E., McCambridge, A. B., Thoms, C., Housiaux, J., & Ehau-Taumaunu, H. (2022). Seen but unheard: Navigating turbulent waters as Māori and Pacific postgraduate students in STEM. *Journal of the Royal Society of New Zealand, 52*(sup1), 116-134. https://doi.org/https://doi.org/10.1080/03036758.2022.2097710

McAllister, T. G., Kidman, J., Rowley, O., & Theodore, R. F. (2019). Why isn't my professor Māori? A snapshot of the academic workforce in New Zealand universities. *MAI Journal: A New Zealand Journal of Indigenous Scholarship, 8*(2). https://doi.org/https://doi.org/10.20507/MAIJournal.2019.8.2.10

McIver, S., Murphy, B., Curran, L., & Parrish, A. (2022). Cultural proficiency starts here: Drawing on staff and student perceptions to Indigenise curricula. *Health Promotion Journal of Australia, 33*, 67-75.

McKinley, E., & Madjar, I. (2014). From Schools in Low-Income Communities to University: Challenges of Transition for Maori and Pacific Students. In F. Cram, H. Phillips, P. Sauni, & C. Tuagalu (Eds.), *Maori and Pasifika higher education horizons* (Vol. 15, pp. 241-252). Emerald Group Publishing. https://doi.org/https://doi.org/10.1108/s1479-364420140000015020

McMeeken, J., Grant, R., Webb, G., Krause, K.-L., & Garnett, R. (2008). Australian physiotherapy student intake is increasing and attrition remains lower than the university average: a demographic study. *Australian Journal of Physiotherapy, 54*(1), 65-71. https://doi.org/https://doi.org/10.1016/s0004-9514(08)70068-0

McNae, R. E. (2018). Sharing their wor[l]ds: Appreciating student's voices in strength-based youth leadership development. *Journal of Ethical Educational Leadership*(1), 137-153. https://hdl.handle.net/10289/13730

McTaggart, R. (1994). Participatory action research: Issues in theory and practice. *Educational Action Research, 2*(3), 313-337. https://doi.org/https://doi.org/10.1080/0965079940020302

Mead, H. (2016). *Tikanga Maori: Living by Maori values (rev. ed.)*. Huia (NZ) Ltd. http://ebookcentral.proquest.com/lib/aut/detail.action?docID=4783665

Mead, S. M. (2003). *Tikanga Māori: Living by Māori values*. Huia.

Medical Council of New Zealand. (2019). *Current standards: Cultural saftety*. Retrieved April 26, 2020 from https://www.mcnz.org.nz/our-standards/current-standards/cultural-safety/

Medical Council of New Zealand. (2021). *The New Zealand medical workforce 2022*. https://www.mcnz.org.nz/assets/Publications/Workforce-Survey/64f90670c8/Workforce-Survey-Report-2022.pdf

Meyer, M. A. (2014). Holographic Epistemology: Native common sense. In C. Smith (Ed.), *Encyclopedia of Global Archaeology* (pp. 3435-3443). Springer New York. https://doi.org/https://doi.org/10.1007/978-1-4419-0465-2_6

Mikaere, A. (2017). Matiu Dickson: The measure of the man. *Waikato Law Review: Taumauri, 25*, 100-106.

Mikahere-Hall, A. (2017). Constructing research from an indigenous Kaupapa Māori perspective: An example of decolonising research. *Psychotherapy and Politics International, 15*(3), e1428. https://doi.org/https://doi.org/10.1002/ppi.1428

Milne, A., & Milne-Ihimaera, K. (2022). *Disrupting education: a whānau perspective* [Paper presented]. Te Tiriti-based futures + Anti-racism, Auckland https://www.tiritibasedfutures.info/

Milne, T., Creedy, D. K., & West, R. (2016). Integrated systematic review on educational strategies that promote academic success and resilience in undergraduate indigenous students. *Nurse Education Today, 36*, 387-394. https://doi.org/10.1016/j.nedt.2015.10.008

Ministry of Education. (2005). *Hui Taumata 2005: Māori in tertiary education: A picture of trends*. Retrieved August 14, 2018 from https://www.educationcounts.govt.nz/publications/80898/2179

Ministry of Education. (2013). *Ka Hikitia—Accelerating success 2013–2017: Māori education strategy*. https://www.education.govt.nz/ministry-of-education/overall-strategies-and-policies/the-maori-education-strategy-ka-hikitia-accelerating-success-20132017/

Ministry of Education. (2017). *Te Whāriki: early childhood curriculum*. https://www.education.govt.nz/assets/Documents/Early-Childhood/ELS-Te-Whariki-Early-Childhood-Curriculum-ENG-Web.pdf

Ministry of Education. (2020). *The statement of national education and learning priorities (NELP) & tertiary education strategy (TES)*. Retrieved October 31, 2020 from https://assets.education.govt.nz/public/Documents/NELP-TES-documents/FULL-TES-2020.pdf

Ministry of Education. (2021). *The impact of COVID-19 on tertiary education in New Zealand*. https://www.educationcounts.govt.nz/__data/assets/pdf_file/0011/210017/The-impact-of-COVID-19-on-tertiary-education-in-NZ.pdf

Ministry of Education. (2022). *Education counts: Tertiary particpation* https://www.educationcounts.govt.nz/statistics/tertiary-participation

Ministry of Education and New Zealand Teachers Council. (2011). *Tātaiako: Cultural competencies for teachers of Māori learners*. Ministry of Education. Retrieved September 7, 2019 from https://teachingcouncil.nz/assets/Files/Code-and-Standards/Tataiako-cultural-competencies-for-teachers-of-Maori-learners.pdf

Ministry of Health. (2003a). *Achieving health for all people* (Vol. 2018). Ministry of Health. https://www.moh.govt.nz/notebook/nbbooks.nsf/0/8BE8CFACAB217B70CC256F8C00034705/$file/Achieving-Health-For-All-2003.pdf

Ministry of Health. (2003b). *Health Practitioners Competence Assurance Act 2003 (NZ)*. New Zealand Government Press. Retrieved October 26, 2018 from https://www.health.govt.nz/our-work/regulation-health-and-disability-system/health-practitioners-competence-assurance-act

Ministry of Health. (2014). *He Korowai Oranga*. Retrieved September 4, 2018 from https://www.health.govt.nz/publication/guide-he-korowai-oranga-maori-health-strategy

Ministry of Health. (2015). *Tatau Kahukura: Māori health chart book 2015*. Retrieved October 28, 2019 from https://www.health.govt.nz/publication/tatau-kahukura-maori-health-chart-book-2015-3rd-edition

Ministry of Health. (2016). *New Zealand Health Strategy: Future Direction* Ministry of Health. Retrieved September 4, 2018 from https://www.health.govt.nz/publication/new-zealand-health-strategy-2016

Ministry of Health. (2017). *Statement of strategic intensions 2017-2021.* https://www.health.govt.nz/publication/statement-strategic-intentions-2017-2021

Ministry of Health. (2019). *Wai 2575 Māori health trends report*. https://www.health.govt.nz/publication/wai-2575-maori-health-trends-report

Ministry of Health. (2020a). *Te Tiriti o Waitangi framework*. https://www.health.govt.nz/system/files/documents/pages/whakamaua-tiriti-o-waitangi-framework-a3-aug20.pdf

Ministry of Health. (2020b). *Whakamaua: Māori health action plan 2020-2025*. Retrieved July 2, 2020 from https://www.health.govt.nz/publication/whakamaua-maori-health-action-plan-2020-2025

Ministry of Health. (2021). *Health workforce advisory board 2021 annual report to the Minister of Health* https://www.health.govt.nz/publication/health-workforce-advisory-board-2021-annual-report-minister-health

Ministry of Health. (2022). *Te Whatu Ora*. https://www.tewhatuora.govt.nz/

Ministry of Health. (2023a). *New Zealand health strategy 2023*. New Zealand Government. Retrieved October 31, 2023 from https://www.health.govt.nz/publication/new-zealand-health-strategy

Ministry of Health. (2023b). *Pae Tū: hauora Māori strategy*. Retrieved August 30, 2023 from https://www.health.govt.nz/system/files/documents/publications/hp8748-pae-tu-hauora-maori-strategy.pdf

Ministry of Justice. (2024). *Waitangi Tribunal reports*. Retrieved January 30, 2024 from https://waitangitribunal.govt.nz/publications-and-resources/waitangi-tribunal-reports/

Minton, C., Burrow, M., Manning, C., & van der Krogt, S. (2022). Cultural safety and patient trust: The Hui Process to initiate the nurse-patient relationship. *Contemporary Nurse, 58*(2-3), 228-236. https://doi.org/10.1080/10376178.2022.2070518

Moewaka Barnes, H., & McCreanor, T. (2019). Colonisation, hauora and whenua in Aotearoa. *Journal of the Royal Society of New Zealand, 49*(1), 19-33. https://doi.org/https://doi.org/10.1080/03036758.2019.1668439

Moon, K., & Blackman, D. (2014). A guide to understanding social science research for natural scientists. *Conservation Biology, 28*(5), 1167-1177. https://doi.org/10.1111/cobi.12326

Moorfield, J. C. (2011). *Te aka: Māori-English, English-Māori dictionary and index* (New expanded ed.). Pearson.

Mutu, M. (2019). 'To honour the treaty, we must first settle colonisation' (Moana Jackson 2015): The long road from colonial devastation to balance, peace and harmony. *Journal of the Royal Society of New Zealand, 49*(1), 4-18. https://doi.org/https://doi.org/10.1080/03036758.2019.1669670

Naepi, S., Theodore, R., Kidman, J., McAllister, T., & Kokaua, J. (2020). *Why isn't my Professor Māori or Pacific? Data update*. https://auckland.figshare.com/articles/preprint/Why_isn_t_my_Professor_M_ori_or_Pacific_data_update/13211261

Nasir, N. i. S., Hand, V., & Taylor, E. V. (2008). Culture and mathematics in school: Boundaries between "cultural" and "domain" knowledge in the mathematics classroom and

beyond. *Review of Research in Education, 32*(1), 187-240. https://doi.org/https://doi.org/10.3102/0091732X07308962

Nayar, S., & Stanley, M. (2015). *Qualitative research methodologies for occupational science and therapy*. Routledge.

New Zealand Government. (2003). *Health Practitioners Competence Assurance Act 2003*. Parliamentary Counsel Office. https://www.legislation.govt.nz/act/public/2003/0048/latest/DLM203312.html

New Zealand Government. (2020). *History of the COVID-19 alert system*. Retrieved August 22, 2022 from https://covid19.govt.nz/about-our-covid-19-response/history-of-the-covid-19-alert-system/#timeline-of-key-events

New Zealand Government. (2023a). *Education counts*. Retrieved July 20, 2023 from https://www.educationcounts.govt.nz/statistics/achievement-and-attainment

New Zealand Government. (2023b). *The tertiary education commission*. Retrieved December 15, 2023 from https://www.tec.govt.nz/focus/our-focus/tes/

New Zealand Qualifications Authority. (2023). *Te Taura Here Tohu Mātauranga o Aotearoa: About the New Zealand Qualifications and credentials framework*. Retrieved December 16, 2023 from https://www2.nzqa.govt.nz/qualifications-and-standards/about-new-zealand-qualifications-credentials-framework/

Ngata, T. (2016). *What do allies look like? The four S's of ally success*. Retrieved September 21, 2020 from https://tinangata.com/2016/08/16/what-do-allies-look-like/

Ngata, T. (2020). *What's required from Tangata Tiriti*. Retrieved February 12, 2021 from https://tinangata.com/2020/12/20/whats-required-from-tangata-tiriti/

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

Nicholls, D., & Larmer, P. (2005). Possible futures for physiotherapy: An exploration of the New Zealand context. *New Zealand Journal of Physiotherapy, 33*(2), 55.

Nicholson, A., Spiller, C., & Pio, E. (2019). Ambicultural governance: Harmonizing Indigenous and western approaches. *Journal of Management Inquiry, 28*(1), 31-47. https://doi.org/https://doi.org/10.1177/1056492617707052

Nursing Council of New Zealand. (2005). *Guidelines for cultural safety, the treaty of Waitangi and Māori health in nursing education and practice.* https://online.flippingbook.com/view/960779225/2/

Pardo del Val, M., & Martinez Fuentes, C. (2003). Resistance to change: A literature review and empirical study. *Management Decision, 41*(2), 148-155. https://doi.org/https://doi.org/10.1108/00251740310457597

Pasene, K. (2018). *'I, too, am Auckland' after two years: What has changed? What Has Not?* [Masters thesis University of Auckland]. Auckland. https://researchspace.auckland.ac.nz/handle/2292/45142?show=full

Paterson, M., Wilson, D., & Lawrence, A. (2008). Realising Maori student capability: An alternative approach to supporting students to maximise their potential. *Set: Research Information for Teachers (Wellington)*(3), 15-19. https://doi.org/https://doi.org/10.18296/set.0494

Patterson, J., Newman, E., Baddock, S., Kerkin, B., & See, R. (2017). Strategies for improving the experiences of Māori students in a blended Bachelor of Midwifery programme. *New Zealand College of Midwives Journal* (53), 45-51. https://doi.org/https://doi.org/10.12784/nzcomjnl53.2017.6.45-52

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). SAGE.

Pere, L., & Barnes, A. (2009). New learnings from old understandings: Conducting qualitative research with Māori. *Qualitative Social Work, 8*(4), 449-467. https://doi.org/https://doi.org/10.1177/1473325009345796

Petersen, J. (2021). The effect of wānanga-based learning in supporting the development of teacher agency in computational thinking. *He Rourou, 1*(1), 5-16.

Physiotherapy Board of New Zealand. (2018). *Physiotherapy practice thresholds in Australia & Aotearoa New Zealand.* https://www.physioboard.org.nz/wp-content/uploads/2018/03/Physiotherapy-Board-Code-Standards-Thresholds.pdf

Physiotherapy Board of New Zealand. (2022a). *He kawa whakaruruhau ā matatau Māori: Māori cultural safety and competency standard*. https://www.physioboard.org.nz/standards/physiotherapy-standards/he-kawa-whakaruruhau-a-matatau-maori-maori-cultural-safety-and-competence-standard

Physiotherapy Board of New Zealand. (2022b). *Physiotherapy standards framework*. Retrieved December 12, 2022 from https://www.physioboard.org.nz/standards

Physiotherapy Board of New Zealand. (2023a). *Accreditation*. Retrieved December 12, 2023 from https://www.physioboard.org.nz/accreditation

Physiotherapy Board of New Zealand. (2023b). *Annual report 2022/2023*. https://www.physioboard.org.nz/wp-content/uploads/2023/08/Physiotherapy-Board-Annual-Report-2023.pdf

Physiotherapy New Zealand. (2017). *Annual report 2017*. Retrieved September 4, 2018 from https://physiotherapy.org.nz/about-us/annual-reports/

Physiotherapy New Zealand. (2023a). *About physio*. Retrieved October 28, 2023 from https://physio.org.nz/about-physiotherapy

Physiotherapy New Zealand. (2023b). *Physiotherapists on the immigration Green list*. Retrieved April 12, 2023 from https://pnz.org.nz/Story?Action=View&Story_id=5106

Pihama, L. (2012). Kaupapa Māori theory: Transforming theory in Aotearoa. *He Pukenga Korero, 9*(2).

Pihama, L., Cram, F., & Walker, S. (2002). Creating methodological space: A literature review of Kaupapa Maori research. *Canadian Journal of Native Education, 26*(1), 30-43.

Pihama, L., Reynolds, P., Smith, C., Reid, J., Smith, L. T., & Nana, R. T. (2014). Positioning historical trauma theory within Aotearoa New Zealand. *AlterNative: An International Journal of Indigenous Peoples, 10*(3), 248-262. https://doi.org/https://doi.org/10.1177/117718011401000304

Pihama, L., Tiakiwai, S.-J., & Southey, K. (2015). *Kaupapa rangahau: A reader. A collection of readings from the Kaupapa Rangahau workshops series*. Te Kotahi Research Institute.

Pinnegar, S., & Daynes, J. (2007). Locating narrative inquiry historically. Handbook of narrative inquiry: Mapping a methodology. In J. Clandinin (Ed.), *Handbook of narrative inquiry: Mapping a methodology* (pp. 3-34). SAGE.

Pitama, S., Bennett, S., Waitoki, W., Haitana, T. N., Valentine, H., Pahina, J., Taylor, J. E., Tassell-Matamua, N., Rowe, L., & Beckert, L. (2017). A proposed hauora Māori clinical guide for psychologists: Using the hui process and Meihana model in clinical assessment and formulation. *New Zealand Journal of Psychology, 43*(6), 7-19. https://hdl.handle.net/10289/12516

Pitama, S., Huria, T., & Lacey, C. (2014). Improving Maori health through clinical assessment: Waikare o te Waka o Meihana. *The New Zealand Medical Journal, 127*(1393), 107-119.

Pitama, S. G., Palmer, S. C., Huria, T., Lacey, C., & Wilkinson, T. (2018). Implementation and impact of indigenous health curricula: a systematic review. *Medical Education, 52*(9), 898-909. https://doi.org/10.1111/medu.13613

Porsanger, J. (2004). An essay about indigenous methodology. *Nordlit*(15), 105-120. https://doi.org/https://doi.org/10.7557/13.1910

Pounamu, P. (n.d.). *Voices: Wānanga*. The University of Waikato. https://poutamapounamu.org.nz/key-documents/voices-w-%C4%81-nanga

Ramsden, I. (1993). Kawa whakaruruhau: Cultural safety in nursing education in Aotearoa (New Zealand). *Nursing Praxis in New Zealand, 8*(3), 4-10. https://www.ncbi.nlm.nih.gov/pubmed/8298296

Ramsden, I. (2002). *Cultural safety and nursing education in Aotearoa and Te Waipounamu* [Doctoral Thesis Victoria University]. Wellington. https://croakey.org/wp-content/uploads/2017/08/RAMSDEN-I-Cultural-Safety_Full.pdf

Ratima, M., Waetford, C., & Wikaire, E. (2006). Cultural competence for physiotherapists: reducing inequalities in health between Maori and non-Maori. *New Zealand Journal of Physiotherapy, 34*(3), 153-159. http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=106248674&site=ehost-live&scope=site

Rātima, T. M., Smith, J., Macfarlane, A., Riki, N., Jones, K., & Davies, L. (2022). *Ngā Hau e Whā o Tāwhirimātea: Culturally responsive teaching and learning for the tertiary sector*. University of Canterbury. https://ir.canterbury.ac.nz/items/da826c9f-32f2-409f-8c98-117edd550fb0

Razzetti, G. (n.d.). *Appreciative inqury: A postive change model to drive cultural change*. Retrieved September 30, 2023 from https://www.fearlessculture.design/blog-posts/appreciative-inquiry-a-positive-approach-to-change

Reason, P., & Bradbury, H. (Eds.). (2001). *Introduction: Inquiry and participation in search of a world worthy of human aspiration*. SAGE.

Reid, A. (2019). *Physiotherapy workforce and attrition*. BERL. https://pnz.org.nz/Folder?Action=View%20File&Folder_id=472&File=PNZ%20workforce%20retention%20and%20attrition%20report.pdf

Reid, A., & Dixon, H. (2018). *Analysis of the physiotherapy workforce* (5980). BERL. https://apex.org.nz/wp-content/uploads/BERL-workforce-analysis-2018.pdf

Reid, P. (2021). Structural reform or a cultural reform? Moving the health and disability sector to be pro-equity, culturally safe, Tiriti compliant and anti-racist. *The New Zealand Medical Journal (Online), 134*(1535), 7-10.

Reid, P., Cormack, D., & Paine, S. J. (2019). Colonial histories, racism and health: The experience of Maori and Indigenous peoples. *Public Health, 172*, 119-124. https://doi.org/10.1016/j.puhe.2019.03.027

Reid, P., Paine, S. J., Curtis, E., Jones, R., Anderson, A., Willing, E., & Harwood, M. (2017). Achieving health equity in Aotearoa: Strengthening responsiveness to Maori in health research. *New Zealand Medical Journal, 130*(1465), 96-103. https://www.ncbi.nlm.nih.gov/pubmed/29121628

Reid, P., & Robson, B. (2006). The state of Māori health. In M. Mulholland (Ed.), *State of the Māori nation: twenty-first century issues in Aotearoa* (pp. 17-31). Reed.

Richer, M.-C., Ritchie, J., & Marchionni, C. (2010). Appreciative inquiry in healthcare. *British Journal of Healthcare Management, 16*(4), 164-172. https://doi.org/https://doi.org/10.12968/bjhc.2010.16.4.47399

Rigby, W., Duffy, E., Manners, J., Latham, H., Lyons, L., Crawford, L., & Eldridge, R. (2011). Closing the gap: Cultural safety in Indigenous health education. *Contemporary Nurse, 37*(1), 21-30. https://doi.org/https://doi.org/10.5172/conu.2011.37.1.021

Robson, B., & Harris, R. (2007). *Hauora: Màori Standards of Health IV. A study of the years 2000–2005*. Te Ropu Rangahau Hauora a Eru Pomare.

Rodríguez-Nogueira, Ó., Leirós-Rodríguez, R., Pinto-Carral, A., Álvarez-Álvarez, M. J., Morera-Balaguer, J., & Moreno-Poyato, A. R. (2022). The association between empathy and the physiotherapy–patient therapeutic alliance: A cross-sectional study. *Musculoskeletal Science and Practice, 59*, 102557. https://doi.org/https://doi.org/10.1016/j.msksp.2022.102557

Rolfe, G., & Davies, R. (2009). Second generation professional doctorates in nursing. *International Journal of Nursing Studies, 46*(9), 1265-1273. https://doi.org/10.1016/j.ijnurstu.2009.04.002

Royal, T. A. C. (2012). Politics and knowledge: Kaupapa Maori and matauranga Maori. *New Zealand Journal of Educational Studies, 47*(2), 30.

Royal, T. A. C. (Ed.). (2022). *Manu Kōkiri*. Taumata Aronui.

Ruakere, T. (2016). *The experience of living with bowl cancer for Māori in Taranaki* [Doctoral thesis Auckland University of Technology]. Auckland. https://openrepository.aut.ac.nz/handle/10292/10559

Salmond, A. (1983). The study of traditional Maori society: the state of the art. *The Journal of the Polynesian Society, 92*(3), 309-331.

Sandelowski, M. (1995). Sample size in qualitative research. *Research in Nursing and Health, 18*(2), 179-183. https://doi.org/10.1002/nur.4770180211

Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing and Health, 23*(4), 334-340. https://doi.org/https://doi.org/10.1002/1098-240x(200008)23:4<334::aid-nur9>3.0.co;2-g

Sandelowski, M. (2010). What's in a name? Qualitative description revisited. *Research in Nursing and Health, 33*(1), 77-84. https://doi.org/10.1002/nur.20362

Schneider, Z., & Whitehead, D. (2013). Identifying research ideas, questions, statements and hypotheses. In Z. Schneider & D. Whitehead (Eds.), *Nursing and midwifery research: Methods and appraisal for evidence-based practice* (pp. 57-76). Elsevier.

Sciascia, A. (2017). *Māori learner success in tertiary education: Highlights from Ako Aotearoa supported research projects*. Ako Aotearoa. https://ako.ac.nz/assets/Reports/Synthesis-reports/SYNTHESIS-REPORT-Maori-learner-success-in-tertiary-education-Highlights-from-Ako-Aotearoa-supported-research-projects.pdf

Scobie, M., Lee, B., & Smyth, S. (2021). Braiding together student and supervisor aspirations in a struggle to decolonize. *Organization, 28*(5), 857-875. https://doi.org/https://doi.org/10.1177/13505084211015370

Shahjahan, R. A., Estera, A. L., Surla, K. L., & Edwards, K. T. (2022). "Decolonizing" curriculum and pedagogy: A comparative review across disciplines and global higher education contexts. *Review of Educational Research, 92*(1), 73-113. https://doi.org/https://doi.org/10.3102/00346543211042423

Sherrard, J. (1966). *Kaikoura: A history of the district*. Capper Press.

Sikes, P. (2006). Decolonizing research and methodologies: indigenous peoples and cross-cultural contexts. *Pedagogy, Culture & Society, 14*(3), 349-358. https://doi.org/https://doi.org/10.1080/14681360600892017

Simon, V. (2006). Characterising Maori nursing practice. *Contemporary Nurse, 22*(2), 203-213. https://doi.org/10.5172/conu.2006.22.2.203

Skerrett, M., & Ritchie, J. (2021). Te Rangatiratanga o te Reo: sovereignty in Indigenous languages in early childhood education in Aotearoa. *Kotuitui: New Zealand Journal of Social Sciences Online, 16*(2), 250-264. https://doi.org/https://doi.org/10.1080/1177083X.2021.1947329

Smith, G. (1995). Falling through the cracks of the constructivism debate: The neglect of the Māori crisis within science education. *ACCESS-Critical Perspectives on Cultural and Policy Studies in Education, 31*(2), 103-121.

Smith, G. (1997). *The development of Kaupapa Maori: Theory and praxis*. Doctoral dissertation, ResearchSpace@ Auckland. Auckland

Smith, G. (2003). *Kaupapa Maori Theory: Theorizing Indigenous transformation of education and schooling* Kaupapa Māori Symposium, Auckland. https://www.aare.edu.au/data/publications/2003/pih03342.pdf

Smith, G., Hoskins, T. K., & Jones, A. (2012). Interview: Kaupapa Maori: The dangers of domestication. *New Zealand Journal of Educational Studies, 47*(2), 10.

Smith, L. T. (1999). *Decolonizing methodologies: Research and indigenous peoples*. University of Otago Press.

Smythe, E., Hennessy, J., Abbott, M., & Hughes, F. (2018). Do professional boundaries limit trust? *International Journal of Mental Health Nursing, 27*(1), 287-295. https://doi.org/https://doi.org/10.1111/inm.12319

Spiller, C., Erakovic, L., Henare, M., & Pio, E. (2011). Relational well-being and wealth: Māori businesses and an ethic of care. *Journal of Business Ethics, 98*(1), 153-169. https://doi.org/https://www.jstor.org/stable/41476134

Stats New Zealand. (2018). *2018 Census population and dwelling counts*. Retrieved November 7, 2019 from https://www.stats.govt.nz/information-releases/2018-census-population-and-dwelling-counts

Stats New Zealand. (2022). *Māori population estimates: at June 2022*. New Zealand Government. Retrieved January 18, 2024 from https://www.stats.govt.nz/information-releases/maori-population-estimates-at-30-june-2022/

Stavros, J. M., & Torres, C. B. (2005). *Dynamic relationships: Unleashing the power of appreciative inquiry in daily living*. Taos Institute Publications.

Stewart, G., Smith, V., Diamond, P., Paul, N., & Hogg, R. (2021). Ko te Tika, ko te Pono, ko te Aroha: Exploring Māori values in the university. *Te Kaharoa, 14*(1).

Stucki, P. (2012). A Maori Pedagogy: Weaving the Strands Together. *Kairaranga, 13*(1), 7-15.

Tamarapa, A. (2019). *Whatu kākahu: Māori cloaks*. Te Papa Press.

Tautolo, E., Wrapson, W., Paterson, J., Wright-St Clair, V., Neville, S., Dewes, O., & Iusitini, L. (2017). Healthy Pacific grandparents: a participatory action research project exploring ageing well among Pacific people in New Zealand. *Self & Society, 45*(2), 134-148. https://doi.org/https://doi.org/10.1080/03060497.2017.1334973

Taylor, E. V., Lalovic, A., & Thompson, S. C. (2019). Beyond enrolments: A systematic review exploring the factors affecting the retention of Aboriginal and Torres Strait Islander health students in the tertiary education system. *International Journal of Equity in Health, 18*(1), 136. https://doi.org/https://doi.org/10.1186/s12939-019-1038-7

Te, M., Blackstock, F., & Chipchase, L. (2019). Fostering cultural responsiveness in physiotherapy: Curricula survey of Australian and Aotearoa New Zealand physiotherapy programs. *BMC Medical Education, 19*(1), 326. https://doi.org/10.1186/s12909-019-1766-9

Te, M., Blackstock, F., Liamputtong, P., & Chipchase, L. (2022). New graduate physiotherapists' perceptions and experiences working with people from culturally and linguistically diverse communities in Australia: a qualitative study. *Physiotherapy Theory and Practice, 38*(6), 782-793. https://doi.org/10.1080/09593985.2020.1799459

Te Maro, P., Lane, C., Bidois, V., & Earle, D. (2019). Literacy, achievement and success in a Māori tourism certificate programme: reading the world in order to read the word. *International Journal of Lifelong Education, 38*(4), 449-464. https://doi.org/https://doi.org/10.1080/02601370.2019.1648576

Te One, A., & Clifford, C. (2021). Tino Rangatiratanga and well-being: Maori self determination in the face of Covid-19. *Frontiers in Sociology, 6*, 613340. https://doi.org/https://doi.org/10.3389/fsoc.2021.613340

Te Pūtea Whakatupu Trust. (2020). *The effects of COVID-19 on Māori education outcomes*. https://teohu.maori.nz/wp-content/uploads/2021/04/The-Effects-of-COVID-19-on-Maori-Education-Outcomes.pdf

Te Rau Ora and Infometrics. (2022). *Māori enrolled in and completing qualifications towards health and social care occupations (2016-2020)*. https://terauora.com/wp-content/uploads/2022/05/3.-MAORI-ENROLLED-IN-AND-COMPLETING-HSC-QUALIFICAITONS-SERIES.pdf

Te Whatu Ora-Health New Zealand. (2023). *Health workforce plan 2023-24*. https://www.tewhatuora.govt.nz/publications/health-workforce-plan-202324/

Terry, G., & Hayfield, N. (2021). *Essentials of thematic analysis*. American Psychological Association.

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

Tertiary Education Commission. (2012). *Doing better for Māori in tertiary settings: review of literature*. Retrieved July 2, 2018 from http://maori-lit-review-2013.publications.tec.govt.nz/uploads/TEC-Doing-Better-For-Maori.pdf

Theodore, R., Tustin, K., Kiro, C., Gollop, M., Taumoepeau, M., Taylor, N., Chee, K.-S., Hunter, J., & Poulton, R. (2016). Māori university graduates: Indigenous participation in higher education. *Higher Education Research & Development, 35*(3), 604-618. https://doi.org/https://doi.org/10.1080/07294360.2015.1107883

Tolich, M. (2002). Pakeha" paralysis": Cultural safety for those researching the general population of Aotearoa. *Social Policy Journal of New Zealand*, 164-178.

Tomoana, R., & Zealand, W. N. (2012). Sharing successful teaching and learning strategies for Māori, Pacific, and youth learners. *Whitireia, New Zealand: An Ako Aotearoa Publication*.

Trajkovski, S., Schmied, V., Vickers, M., & Jackson, D. (2013a). Implementing the 4D cycle of appreciative inquiry in healthcare: A methodological review. *Journal of Advanced Nursing, 69*(6), 1224-1234. https://doi.org/10.1111/jan.12086

Trajkovski, S., Schmied, V., Vickers, M., & Jackson, D. (2013b). Using appreciative inquiry to transform healthcare. *Contemporary Nurse, 45*(1), 95-100. https://doi.org/10.5172/conu.2013.45.1.95

Trewartha, C. (2020). He awa whiria, braiding the rivers of kaupapa Māori and Western evidence on community mobilisation. *Psychology Aotearoa, 12*(1), 16-21.

Tynan, L., & Bishop, M. (2023). Decolonizing the literature review: A relational approach. *Qualitative Inquiry, 29*(3-4), 498-508. https://doi.org/https://doi.org/10.1177/10778004221101594

United Nations General Assembly. (2007). *United Nations Declaration on the Rights of Indigenous Peoples*. https://social.desa.un.org/issues/indigenous-peoples/united-nations-declaration-on-the-rights-of-indigenous-peoples

University of Auckland. (2019). *Responsiveness to Māori*. Retrieved September 11, 2022 from https://www.auckland.ac.nz/en/fmhs/about-the-faculty/tkhm/Responsiveness-to-Maori/te-ara-tika.html

University of Auckland. (n.d.). *Māori and Pacific Admission Scheme*. Retrieved November 10, 2023 from https://www.auckland.ac.nz/en/fmhs/study-with-us/maori-and-pacific-at-the-faculty/maori-and-pacific-admission-schemes.html

University of Auckland: Waipapa Taumata Rau. (2021). *Indigenising the University: Ihonuku Te Kawehau Hoskins*. Retrieved September 15, 2021 from https://www.auckland.ac.nz/en/news/2021/04/14/indigenising-the-university--introducing-the-new-ihonuku-te-kawe.html#:~:text=One%20of%20her%20first%20priorities,thinking%20and%20doing%20can%20thrive.%E2%80%9D

University of Otago. (2019). *Māori health research advancement*. Retrieved September 16, 2023 from https://www.otago.ac.nz/healthsciences/research/maori-health

University of Otago. (2020). *University of Otago 2020 annual report* https://www.otago.ac.nz/__data/assets/pdf_file/0025/319660/download-the-university-of-otago-annual-report-2020-828400.pdf

Valentine, H., Tassell-Mataamua, N., & Flett, R. (2017). Whakairia ki runga: The many dimensions of wairua. *New Zealand Journal of Psychology (Online), 46*(3), 64-71.

Vass, A., & Adams, K. (2021). Educator perceptions on teaching Indigenous health: Racism, privilege and self-reflexivity. *Medical Education, 55*(2), 213-221. https://doi.org/10.1111/medu.14344

Waiari, D. A. K., Lim, W. T., Thomson-Baker, A. P., Freestone, M. K., Thompson, S., Manuela, S., Mayeda, D., Purdy, S., & Le Grice, J. (2021). Stoking the fires for Māori & Pacific student success in psychology. *Higher Education Research & Development, 40*(1), 117-131. https://doi.org/https://doi.org/10.1080/07294360.2020.1852186

Waitangi Tribunal. (2014). *Wai 1040: Te Pararahi o te Raki inquiry*. Ministry of Justice. Retrieved July 27, 2021 from https://waitangitribunal.govt.nz/assets/Documents/Publications/WT-Part-1-Report-on-stage-1-of-the-Te-Paparahi-o-Te-Raki-inquiry.pdf

Waitangi Tribunal. (2019). *Hauora: Report on stage one of the health services and outcomes kaupapa Inquiry* (Wai 2575). https://forms.justice.govt.nz/search/Documents/WT/wt_DOC_195476216/Hauora%202023%20W.pdf

Walker, S., Eketone, A., & Gibbs, A. (2006). An exploration of kaupapa Maori research, its principles, processes and applications. *International Journal of Social Research Methodology, 9*(4), 331-344. https://doi.org/https://doi.org/10.1080/13645570600916049

Walton, P., Hamilton, K., Clark, N., Pidgeon, M., & Arnouse, M. (2020). Indigenous university student persistence. *Canadian Journal of Education/Revue canadienne de l'éducation, 43*(2), 430-464.

Watkins, J. M., & Cooperrider, D. (2000). Appreciative inquiry: A transformative paradigm. *OD Practitioner, 32*(1), 6-12. https://www.researchgate.net/publication/265104604_Appreciative_Inquiry_A_Transformative_Paradigm

Watkins, S., Dewar, B., & Kennedy, C. (2016). Appreciative inquiry as an intervention to change nursing practice in in-patient settings: An integrative review. *International Journal of Nursing Studies, 60*, 179-190. https://doi.org/10.1016/j.ijnurstu.2016.04.017

Webber, M., & Macfarlane, A. (2020). Mana tangata: The five optimal cultural conditions for Māori student success. *Journal of American Indian Education, 59*(1), 26-49.

Webber, M., McKinley, E., & Hattie, J. (2013). The importance of race and ethnicity: An exploration of New Zealand Pākehā, Māori, Samoan and Chinese adolescent identity. *New Zealand Journal of Psychology, 42*(2), 43-54. https://doi.org/https://www.psychology.org.nz/journal-archive/Webber1.pdf

Whitehead, M. (1992). The concepts and principles of equity and health. *International Journal of Health Services: Planning, Administration, Evaluation, 22*(3), 429-445. https://doi.org/10.2190/986L-LHQ6-2VTE-YRRN

Whitney, D., & Trosten-Bloom, A. (2010). *The power of appreciative inquiry: A practical guide to positive change* (2nd ed.). Berrett-Koehler Publishers.

Wikaire, E., Curtis, E., Cormack, D., Jiang, Y., McMillan, L., Loto, R., & Reid, P. (2016). Patterns of privilege: A total cohort analysis of admission and academic outcomes for Maori, Pacific and non-Maori non-Pacific health professional students. *BMC Medical Education, 16*(1), 262. https://doi.org/10.1186/s12909-016-0782-2

Wikaire, E., Curtis, E., Cormack, D., Jiang, Y., McMillan, L., Loto, R., & Reid, P. (2017). Predictors of academic success for Maori, Pacific and non-Maori non-Pacific students in health professional education: A quantitative analysis. *Advances in Health Sciences Education, 22*(2), 299-326. https://doi.org/10.1007/s10459-017-9763-4

Wikaire, E., & Ratima, M. (2011). Māori participation in the physiotherapy workforce. *Journal of Aboriginal and Indigenous Community Health, 9*(2), 473-495.

Wilks, J., & Wilson, K. (2015). A profile of the Aboriginal and Torres Strait Islander higher education student population. *TheAustralian Universities' Review, 57*(2), 17-30.

Williams, W. (2020). *Digital taniwha: Growing Māori participation in the IT industry* [Doctoral thesis The University of Waikato]. Hamilton. https://researchcommons.waikato.ac.nz/handle/10289/13842

Wilson, B. J., Bright, F. A., Cummins, C., Elder, H., & Kayes, N. M. (2021). 'The wairua first brings you together': Māori experiences of meaningful connection in neurorehabilitation. *Brain Impairment*, 1-15. https://doi.org/10.1017/BrImp.2021.29

Wilson, D. (2008). The significance of a culturally appropriate health service for Indigenous Maori women. *Contemporary Nurse, 28*(1-2), 173-188. https://doi.org/10.5172/conu.673.28.1-2.173

Wilson, D. (2019). Culturally safe research with vulnerable populations (Māori). In P. Liamputtong (Ed.), *Handbook of research methods in health social sciences* (pp. 1525-1542). Springer Singapore. https://doi.org/10.1007/978-981-10-5251-4_31

Wilson, D. (2020). Indigenous Health. In D. Forman, M. Jones, & J. Thistlewaite (Eds.), *Sustainability and interprofessional collaboration* (pp. 173-188). Springer.

Wilson, D. (2021). *The indigenous status of an undergraduate physiotherapy curriculum at Auckland University of Technology in Aotearoa* [Unpublished undergraduate research report Auckland University of Technology]. Auckland.

Wilson, D., Heaslip, V., & Jackson, D. (2018). Improving equity and cultural responsiveness with marginalised communities: Understanding competing worldviews. *Journal of Clinical Nursing, 27*(19-20), 3810-3819. https://doi.org/10.1111/jocn.14546

Wilson, D., McKinney, C., & Rapata-Hanning, M. (2011). Retention of indigenous nursing students in New Zealand: A cross-sectional survey. *Contemporary Nurse, 38*(1-2), 59-75. https://doi.org/10.5172/conu.2011.38.1-2.59

Wilson, D., Mikahere-Hall, A., & Sherwood, J. (2022). Using indigenous kaupapa Māori research methodology with constructivist grounded theory: Generating a theoretical explanation of indigenous womens realities. *International Journal of Social Research Methodology, 25*(3), 375-390. https://doi.org/https://doi.org/10.1080/13645579.2021.1897756

Wilson, D., Moloney, E., Parr, J. M., Aspinall, C., & Slark, J. (2021). Creating an Indigenous Maori-centred model of relational health: A literature review of Maori models of health. *Journal of Clinical Nursing, 30*(23-24), 3539-3555. https://doi.org/10.1111/jocn.15859

Wilson, M., Hunt, M., Richardson, L., Phillips, H., Richardson, K., & Challies, D. (2011). Āwhina: a programme for Māori and Pacific tertiary science graduate and postgraduate success. *Higher Education, 62*(6), 699-719.

Wilson, S. (2001). What is an indigenous research methodology? *Canadian Journal of Native Education, 25*(2).

Wilson Uluinayau, T. (2018). *Validation of two patient self-report questionnaires measuring cultural responsiveness of physiotherapists practising in New Zealand* [Master of Philosophy Auckland University of Technology]. Auckland. https://openrepository.aut.ac.nz/items/0e7addf0-0184-41a3-9243-1049b427b7ce

World Health Organization. (2022). *Global research on coronavirus disease (COVID-19)*. https://www.who.int

World Physiotherapy. (2023). *What we do*. Retrieved January 31, 2023 from https://world.physio/

Zambas, S. I., Dewar, J., & McGregor, J. T. (2023). The Māori student nurse experience of cohorting: Enhancing retention and professional identity as a Māori nurse. *Nursing Praxis in Aotearoa New Zealand, 39*(1). https://doi.org/https://doi.org/10.36951/001c.73358

Zambas, S. I., Dutch, S., & Gerrard, D. (2020). Factors influencing Maori student nurse retention and success: An integrative literature review. *Nurse Education Today, 91*, 104477. https://doi.org/10.1016/j.nedt.2020.104477

Zealandia. (n.d.). *Tūi*. Retrieved November 17, 2023 from https://www.visitzealandia.com/About/Wildlife/Birds/T%C5%AB%C4%AB

Glossary

The following glossary cites Māori kupu (words) or concepts that are related to the context of this thesis. I acknowledge that many of these words or concepts can have multiple meanings, and the brief definitions in English, given here, do not capture the full essence of many that are presented. The following glossary has been developed from a blend of sources including Te Ara Māori dictionary (Moorfield, 2011); relevant literature and texts referred to during the course of the research; Māori colleagues, friends, supervisors, and the research whānau.

Kupu	English Translation
Ako	Reciprocal approach to teaching and learning that involves an interactive teaching-learning practice model where teachers and learners engage together in interactive and dialogic relationships
Ākonga	Student
Aotearoa	Māori name for New Zealand
Aroha	Love, respect, care, affection, compassion
Awa	River
Hāngī	A traditional form of cooking where food is cooked in an earth oven using steam and heated rocks
Hāpu	Kinship group or sub-tribe that share descent from a common ancestor. A number of hāpu form an iwi (or tribe)
Hauora	A Māori perspective of well-being or wellness of life based on Māori philosophy of health that comprises four dimensions that relate to spiritual health, physical health, the importance of whānau, and mental and emotional well-being
He awa whiria	A braided river metaphor where Māori and Westernised knowledge systems come together and/or remain on their own trajectories to achieve outcomes of transformative change
He kawa whakaruruhau ā matatau Māori	This represents a physiotherapy profession accreditation standard: Māori cultural safety and competency
Hui	A meeting or gathering of people

Kupu	English Translation
Iwi	Extended kinship group or tribe—a large group of people that descend from a common ancestor
Kai	Food
Kaiako	Teacher
Kaiārahi	A mentor or leader who up holds the mana or champions others
Kaimahi	A staff member or worker
Kaitiaki	Custodian, guardian, a person with a responsibility to look after something or someone
Kanohi-te-kanohi	Face-to-face interactions. This is considered a key value in terms of conducting research with Māori
Karakia	To recite or say a prayer, blessing
Kaumātua	An older person or elder who has status within the whānau or work or school environment
Kaupapa	Matter for discussion, purpose, agenda
Kāwanatanga	Authority, governance. The importance of kāwanatanga is highlighted in Article 1 of Te Tiriti.
Koha	Gift, gift giving
Kōrero	To tell, say, speak or engage in conversation. In this research, kōrero on a one-to-one basis were held with roopu rangahau
Korowai	The korowai is a traditional woven cloak that signifies cultural pride and is often worn as a mantle of prestige and honour
Kotahitanga	Unity, togetherness, and collective action. In this research roopu rangahau placed significant value on kotahitanga in terms of supporting each other and guiding the transformation of physiotherapy education into a space of thriving
Mana	Authority, charisma, prestige, status, integrity; honour, respect. Intrinsic to supporting or upholding a person's mana is showing humility and empowering others towards collective empowerment
Mana whenua	Local dominion – Māori who are local within the community
Mana motuhake	Autonomy/independence

Kupu	English Translation
Manaakitanga	Process or act of showing respect, generosity, kindness, and the responsibility of caring for others. Manaakitanga formed a key aspect of the Māori-centred framework adopted in this research. It also refers to the nurturing of relationships
Māori	Indigenous person/people of Aotearoa
Marae	Meeting area in front of a traditional Māori house where formal welcomes and discussions can take place
Mātauranga	Māori knowledge or wisdom originating from Māori ancestors
Mauri	Life force, vital essence, the vitality of being, inherent in all things that binds physical and spiritual realms
Mauri ora	Life essence flourishes with potential
Moana nui a kiwa	Pacific Ocean
Ora	To be alive, well, and safe
Ōritetanga	Equality, equal opportunity
Pākehā	Represents European settlers and their descendants
Pāpā	Father, dad
Pepeha	Pepeha connect Māori through their whakapapa (genealogy) and are typically recited during whakawhanaungatanga. Reciting pepeha tells people where you are from and who you are connected to
Pono	Being truthful, sincere, and acting with integrity
Powhiri	A formal ritual of encounter to welcome or invite
Rangatira	Chief, or leader
Rōngoa	A traditional Māori system of healing
Roopu rangahau	The name gifted by Māori who participated in this research to identify Māori physiotherapy graduates as a group or individual member's of the group
Tangata Tiriti	Non-Māori and Pākehā who support te Tiriti o Waitangi as founding document of Aotearoa
Tangata whenua	People of the land, Indigenous people

Kupu	English Translation
Taonga	Treasure, anything prized
Tauiwi	New Zealanders who are not of Māori descent
Tautoko	Support, show agreement, back up someone's view. Roopu rangahau often supported each other's views during hui
Te ao Māori	The Māori worldview
Te reo Māori	The Māori language
Te Tiriti o Waitangi	Founding document signed between the Crown and rangatira Māori in 1840 that reaffirms Māori sovereignty (rangatiratanga) and guarantees the protection of rights and aspirations of Māori as tangata whenua
Te whāriki	Woven mat. In the current research te whāriki represents a place for Māori and Pākehā/Tauiwi to stand together
Te whare tapa whā	A Māori model of holistic health and well-being represented by a four walled meeting house or wharenui. The four walls are spiritual health, physical health, the importance of whānau, and mental and emotional well-being
Teina	Younger sibling/student
Tika	Seeking advice, acting accordingly, or behaving in a way that is appropriate
Tikanga	Cultural practices or custom established in mātauranga that inform ways of doing things that uphold Māori ways of being and doing
Tino rangatiratanga	Absolute sovereignty, self-determination, autonomy. With respect to Article 2 of Te Tiriti affirms tino rangatiratanga (sovereignty) of Hapū over lands, resources, and taonga (treasures) that belong to Māori
Tūpuna	Ancestors
Tūrangawaewae	Standing place – a place where someone has the right to stand through kinship and whakapapa
Tuakana	Older sibling/teacher

Kupu	English Translation
Tuakana/Teina	The joining of these two concepts takes to mean a support system of care by older students towards younger students. This also represented my role in the research relationship; I am the Teina in the context of Māori centred research. It also represents a pedagogical approach to teaching and learning where the teacher or expert in the relationship may be the student
Waiata	Song, chant, psalm
Wairua	Spirit, attitude, soul – wairua can represent spirituality and/or a sense of connectedness
Wānanga	Traditional method of learning and sharing knowledge that supports sharing and reflecting within a collaborative space
Whakaaro	Thinking, understanding
Whakapapa	Descendant, genealogy, lineage. Genealogy is important in te ao Māori and reflects the foundation of Māori society
Whakatau	Welcome ceremony less from than a pōwhiri
Whakataukī	Ancestral saying, metaphor/proverb. Whakataukī are adopted to convey an important message
Whakawhanaungatanga	The act or process of establishing relationships or making connections through shared genealogy, or introducing yourself and getting to know someone. The process of whakawhanaungatanga provides the basis for new relationships to be formed
Whānau	Family, or extended family. Is a term often used to represent a number of people. Can include a group of people that do not have kinship ties. A kaupapa whānau is a group who share a common bond or purpose
Whanaungatanga	Maintaining relationships, kinship, or sense of connection through a shared experience. The value of whanaungatanga was central to the Māori-centred framework adopted in this research
Whenua	Land

Appendices

Appendix A: Auckland University of Technology Ethics Committee (AUTEC) research letter of approval

Auckland University of Technology Ethics Committee (AUTEC)

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

21 August 2020

Heather Came-Friar
Faculty of Health and Environmental Sciences

Dear Heather

Re Ethics Application: **20/170 A participatory action research (PAR) study to enhance the experience of Māori Physiotherapy students.**

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

Your ethics application has been approved for three years until 21 August 2023.

Standard Conditions of Approval

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

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

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

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

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

The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Cc: Jill Caldwell; Liz Smythe

Appendix B: Summary of literature reviewed

Author/s	Aim/objective	Methodology and methods	Participants	Key findings
Admission schemes and foundation programmes				
(Curtis et al., 2015a)	To examine the admissions process and the predictive effects of academic outcomes of Māori and Pasifika students in their first year of tertiary foundation or degree level programme.	Quantitative analysis with a Kaupapa Māori approach.	Data from 368 Māori and Pasifika students in foundation programme (42% Māori) and 242 Māori and Pasifika students (43% Māori) in the first year degree programme University of Auckland identified from Māori and Pacific Admissions Scheme (MAPAS).	• MAPAS admissions process is strongly associated with positive academic outcomes in first year of study • There is an association between two science subjects at school and year 1 academic outcomes • Academic outcome in year 1 impacts retention and degree completion • Secondary schools are not adequately preparing Māori and Pasifika students for tertiary health study • Alternative entry pathways for Māori and Pasifika students are beneficial
(Curtis et al., 2015b)	To provide an overview of the Māori and Pacific Admissions Scheme (MAPAS) and the predictive effect of the MAPAS and achievement in first year of study for Māori students over the period 2008-2012.	Quantitative analysis using a Kaupapa Māori approach.	918 interviewees going into first year of study at University of Auckland: • 35% Māori • 58% Pasifika • 7% Māori and Pasifika • 71% School leavers	• 47% of Māori students recommended to do a bridging programme • 13% recommended to go straight into a first-year bachelor programme • Two science subjects in secondary school you were more likely to be recommended to do directly into first year bachelor study • Tertiary health organisations require an alternative entry process to grow Māori health workforce

Author/s	Aim/objective	Methodology and methods	Participants	Key findings
(Curtis et al., 2012a)	Examines teaching practices within a non-lecture context of a foundation programme that help or hinder Māori and Pasifika student success.	Three phase Kaupapa Māori/Pasifika methodology and critical incident technique[50] interview method.	11 Māori and 17 Pasifika students enrolled in foundation programme in a New Zealand University.	Key factors that help Māori student success: • Effective teaching and learning practices- cultural content in curriculum, additional tutorials • Academic and pastoral support – peers mentoring and tutoring, culturally specific study space, staff approachability & availability • Growing independent learners • Support empowerment of the learner • Cohort bonding Barriers: • Lack of independence • Poor teaching and learning methods • Negative cohort effect
(Wikaire et al., 2017)	To explore factors that can predict academic success of Māori and Pasifika students compared to non-Māori and non-Pasifika specifically enrolled in bachelor of health degree programmes.	An observational study through a kaupapa Māori research approach. Quantitative analysis of secondary school student admission variables including school decile, ethic grouping, type of admission, bridging programme and first year bachelor results, and graduation.	2686 students enrolled in health professional programmes at the University of Auckland in health science, nursing, & pharmacy. 150 out of 2,686 (5.6%) identified as Māori.	• Māori enrolment is low • Māori student academic outcomes were predicted by foundation programmes and year 1 grades
(Bristowe et al., 2016)	Explored the impact of a academic support programme	A multi-phase research project.	265 Māori health science students University of Otago.	• Students underprepared coming from secondary school • First semester pass rates improved with intervention • *Te Whakapuāwai programme is effective and* improved educational outcomes and experiences of Māori and progression of students into health degrees

[50] The Critical incident technique is a form of narrative inquiry used to reveal and chronicle the lived experience of students undertaking studies at tertiary level (E. Curtis, E. Wikaire et al., 2012).

Author/s	Aim/objective	Methodology and methods	Participants	Key findings
	(Te Whakapuāwai)[51] programme) in first year health science in Otago University.	Adopted a kaupapa approach to evaluate online surveys and group interviews.		• Students from lower decile schools benefit most
Degree in health				
(Curtis et al., 2012b)	To investigate teaching and learning practices that help or hinder Māori student success in non-lecture settings within undergraduate health programmes.	Kaupapa Māori methodology and critical incident technique interview method.	41 interviews completed with Māori students from undergraduate health programmes (medicine, health sciences, nursing, and pharmacy) at the University of Auckland.	Help/enable academic success for Indigenous students: • Effective teaching and learning practices including culturally responsive and engaging teaching practices including additional tutorials within a safe space • Culturally appropriate academic and pastoral support including Māori support staff and role models and access to study resources • Development of supportive peer and professional relationships (cohort cohesiveness) Barrier to Māori student success: • Lack of basic study skills • Unfamiliarity with workload demands (work/ life balance, financial burden) • Different expectations of teaching support • Cultural isolation (students not socially and academically connected to peers and staff who can support their academic development and engagement

[51] Te Whakapuāwai was established with the aim to increase Māori students achievement in the health sciences first year to address issues of low numbers of Māori entering undergraduate health professional and health science degree programmes. Te Whakapuāwai evolved from the Division of Health Sciences in Otago University that established the Māori Health Workforce Development Unit (MHWDU) in 2010.

Author/s	Aim/objective	Methodology and methods	Participants	Key findings
Nursing				
(D. Wilson et al., 2011)	Explore Māori nursing students' experiences within the nursing programmes in Aotearoa and the factors that affect retention.	A quantitative study using a non-experimental cross-sectional design survey (self-report questionnaire).	108 surveys completed by Māori enrolled in Nursing Degree programme from 14 different institutions across Aotearoa. (Response rate 87.5%)	Enablers • Māori role models • Maintaining identity • Indigenous content in curriculum • Childcare availability • Supportive and nurturing learning environments Barriers: • Lack of cultural support • Travel • Whānau obligations • Financial hardship • Poor understanding of good study habits
(Patterson et al., 2017)	To learn about experiences of Māori studying midwifery degree in Aotearoa (Otago) and identify strategies that will optimise success for future midwifery students, and support the Māori midwifery workforce.	Kaupapa approach to qualitative interviews.	Nine Māori students studying midwifery.	Recommendations for future: • Acknowledgement of Te ao Māori in programme • Academic support throughout programme • Comprehensive information about the course early • Relationships with staff, students and midwifery health professionals
(Chittick et al., 2019)	To understand what factors helped Māori to achieve success within a nursing degree programme.	Qualitative descriptive study using semi-structured interviews.	Seven Māori nursing graduates.	Facilitators of success: • Achieving aspiration of becoming a nurse • Whānau, financial and institutional support • Importance of relationships • Cultural nurture and connectedness within the learning environment • Developing resilience in the face of racism and unconscious bias

Author/s	Aim/objective	Methodology and methods	Participants	Key findings
Occupational Therapy				
(Davis & Came, 2022)	Explore experiences of Māori graduates in occupational therapy in terms of institutional barriers experience during their time of study.	A narrative inquiry method and a kaupapa analysis framework called pūrakau[52]. Participants stories were analysed using the Pū-Rā-Ka-Ū process.	Seven Māori occupational therapy graduates.	Three key institutional barriers: • Cultural dissonance • Cultural (in)competency • Limitations of (western) pastoral care
Physiotherapy				
(Wikaire & Ratima, 2011)	To identify barriers and facilitators for Māori participation and retention in the physiotherapy workforce.	A kaupapa approach to semi-structured interviews.	10 Māori participants who either held key positions at physiotherapy training institutions; were physiotherapists or had recent experience as physiotherapy student; had expertise in Māori student support and/or were current members of the Physiotherapy board of New Zealand, New Zealand Society of Physiotherapists, Taeora Tinana, and/or the health workforce advisory committee.	Enablers: • Identification of students requiring academic support early • Building relationships • Cultural safety, te reo Māori, Māori health in curriculum • Improved cultural competence of faculty • Clinical placement with Māori health providers and clinical educators Barriers: • Monocultural curriculum • Academic staff with poor cultural competence • Low numbers Māori academic staff • Geographic location of programmes • Support services for Māori not well communicated to Māori

[52] Pū-Rā-Ka-Ū draws on traditional Māori Mātauranga. This analysis of this study was undertaken by a Māori lead researcher; for further detail on this technique refer to the full article (Davis & Came, 2022, Table 1, p. 416).

Appendix C: Evidence of consultation with experts

In addition to developing a research whānau engagement occurred with the following people to seek guidance and support with the conduct of the current research:

Associate Professor Maui Hudson originally trained as a physiotherapist (with the primary researcher) within the AUT physiotherapy programme. His past research has focused on the application of mātauranga Māori (indigenous knowledge) and decision-making in health including the development of the Te Ara Tika Guidelines. His input has been significant with respect to my understanding of conducting Māori centred research. As a result of this consultation, adaptations were made to the design adopted for this research. Maui expressed willingness at the time of meeting to be a support person to myself if required.

Dr Rhys Jones is a public health physician and current leader in research in Indigenous health curriculum development. He is currently Associate professor at Te Kupenga Hauora Māori, the University of Auckland. Very experienced in medial Indigenous curriculum design and delivery, Rhys offered great insight as to what sort of transformational change might be possible within physiotherapy and how to undertake this from a Māori world view.

Maarama Davis is a Māori advisor to the Physiotherapy Board of New Zealand and, until recently, was a Physiotherapy Board member. As the AUT physiotherapy programme is audited by the Board it was important to establish a relationship with the Board so that the Board could be informed about the development around cultural inclusiveness within the AUT physiotherapy programme. In the initial stages Maarama provided insightful feedback regarding the design of the research and appropriate tikanga. She continues to show an interest in the findings of this research.

AUT Action Research Group – as a member of the AUT Action Research Group I sought advice with respect to conducting action research, which has helped shape the proposed research methods.

AUT Mātauranga Māori Research Committee provided expertise on the appropriateness of the research question, how to recruit and research appropriately alongside Māori. The suitability of appreciative inquiry as a collaborative methodological process to instigate change was also discussed and support given.

Appendix D: Evidence of professional development to enhance cultural capacity

Title	Presentor /organisation
Transforming health professional education to achieve a Tiriti-compliant health sector (online seminar)	Associate Professor Rhys Jones Te Kupenga Hauora Māori, University of Auckland 2020
How can young people thrive? Public health actions in a global context (webinar)	Professor Fiona Brooks, AUT 2022
Beyond biculturalism: A conversation with Prof Dominic O'Sullivan (webinar)	Professor Dominic O'Sullivan, Public Health Association of New Zealand 2022
Mauri ora: The metrics of flourishing Sir Mason Durie (seminar)	Sir Mason Durie, Compass Seminars 2021
AUT Faculty Tangata iriti workshop	Associate Professor Heather Came and Professor Judith McAra-Couper, AUT School of Environmental Science 2022
Marty Rogers (Webinar)	Marty Rogers, Māori public health advocate, Public Health Association of New Zealand 2021
White fragility (webinar)	Dr Robin DiAngelo, YouTube 2018
Re-thinking curriculum: What is normal?	Dr Ann Milne & Keri Milne-Ihimaara, Te Tiriti Based Futures 2021
Effect of pandemics (webinar)	Dr Moana Jackson with Grant Berghan, 2021
Why should we care about te Tiriti o Waitangi? (YouTube 2018)	Dr Heather Came, viewed 2019
Māori leadership during COVID-19 (webinar)	Sir Mason Durie, 2020
Te Tiriti o Waitangi partners (webinar 2018)	Jen Margaret
Vision Mātauranga (webinar)	Tania Smith, AUT 2020
Disrupting education: A whānau perspective	Ann Milne & Keri Milne-Ihimaere, Te Tiriti Based Futures 2022
White Spaces (workshop)	Ann Milne at AUT 2022
Racism in the health sector in Aotearoa - whose responsibility is it? (webinar)	Professor Papaarangi Reid, Professor David Tipene-Leach, Lady Tureiti Moxon, Te Tiriti Based Futures 2022
Critical te Tiriti analysis: A mechanism for monitoring the Crown (webinar)	Professor Tim McCreanor, Professor Dominic O'Sullivan, Associate Professor Heather Came, & Associate Profession Jacquie Kidd, Te Tiriti Based Futures 2022

Title	Presentor /organisation
Matiki Mai Aotearoa (Webinar)	Professor Margaret Mutu Ngāti Kahu leader, Te Tiriti Based Futures 2022
Feeling safe at work (YouTube)	Alexis Cameron Organisation Development Practice-lead, Auckland District Health Board (published and viewed 2020)
New health reforms (webinar)	Stephen McKernan NZ health and Disability – speaker at AUT 2020
Tangata Tiriti (webinar)	Catherine Delahunty, Action Station 2021
(1) Cultural competency (2) Te Tiriti o Waitangi and healthcare (online courses)	Mauri Ora Health Education Research 2019
Thriving	Dr Jo Egan YouTube 2020
Rationing Māori life and well-being – who decides and how? (webinar)	Professors Papaarangi Reid & Linda Tuawai Smith, Drs Donna Cormack, Krushil Wātene, & Paora Sharples, International Indigenous Research Conference- Gathering of Indigenous minds 2020
Indigenous curriculum (Webinar)	Dr. Georgina Davis
Decolonising the curriculum (Webinar)	Dr Alex Hotere-Barnes, Public Heath Association of New Zealand 2020
Getting better - A year in the life of a Māori medical student podcast series RNZ, 2020	Dr. Emma, Espinar 2020
Indigenising the curriculum (workshop)	Dr Leanne Coombes, AUT 2019
Thematic analysis (workshop)	Dr Gareth Terry, AUT 2019
Te Ara Tika (webinar)	Associate professor Maui Hudson, Public Health Association of New Zealand 2021
Understanding te Tiriti o Waitangi (workshop)	Dr. Heather Came, AUT 2020
Decolonising methods and methodologies (webinar)	Professor Linda Tuhiwai Smith, Interdisciplinary Global Development Centre 2021
Imagining decolonising with Moana Jackson (YouTube 2021)	Dr Moana Jackson, CRSNZ, 2021
Critical Tiriti analysis: A tool to strengthen Te Tiriti compliance (webinar)	Grant Berghan & Dr Heather Came, Public Health Association of New Zealand 2022

Note. The high number of webinars as opposed to workshops or conferences kanohi ki te kanohi reflect the impacts of COVID-19.

Appendix E: Roles of the research whānau (Māori advisory group)

The research whānau met together throughout the course of the research. As the research progressed, we met to discuss the information gathering process, data analysis, and, lastly, to reflect on the potential of transformative change and dissemination of the research findings as the research came to a close.

The key roles of the research whānau that were agreed to are as follows*:*

1. To discuss the potential of the research topic and research process, and the implications for Māori.

Through these discussions the research processes were refined to ensure that the research operated within Te Ara Tika Framework, and te Tiriti was honoured.

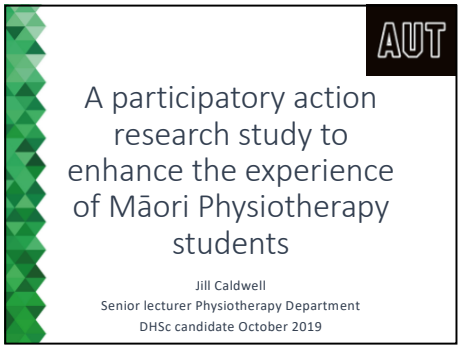
2. To provide cultural guidance and support during data collection.

It was important that both Māori and Pākehā and Tauiwi, including myself, were supported for the duration of the research, so that culturally meaningful research was undertaken. The research whānau provided guidance in terms of the procedures undertaken during the data collection stages of the research involving roopu rangahau (stages one, two), making decisions specific to culturally appropriate procedures and who should lead these. It was agreed that a Māori member of this advisory group would act as kaitiaki (support person) for the duration of these stages, conduct tikanga, and lead discussion to enhance the richness of the discussions. A member of the research whānau was therefore designated the role as a contact support person for roopu rangahau for the duration of the research to provide support should any issues arise during or after the interview or hui.

3. To provide support and advice during the data analysis.

The research whānau agreed to provide guidance specific to the data analysis process. Although not directly involved in the thematic analysis process, key findings were shared with the research whānau so that the analyses of the data reflected a true and accurate record of what was contributed by roopu rangahau. Advice was also given regarding dissemination of the research findings.

Appendix F: PowerPoint presented to potential Māori participants kanohi ki te kanohi for recruitment.



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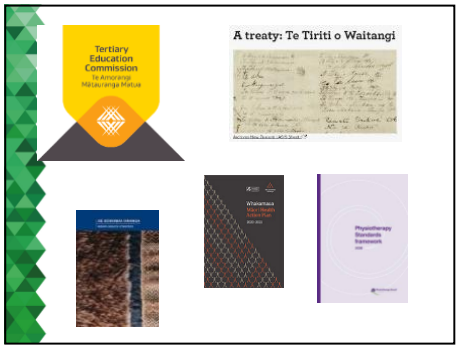

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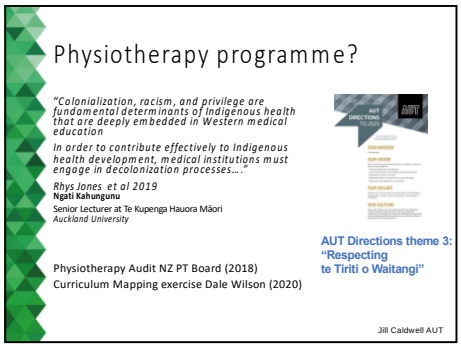

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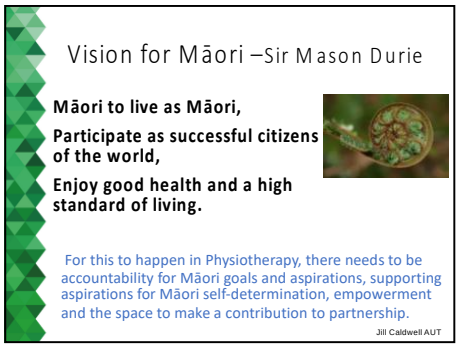

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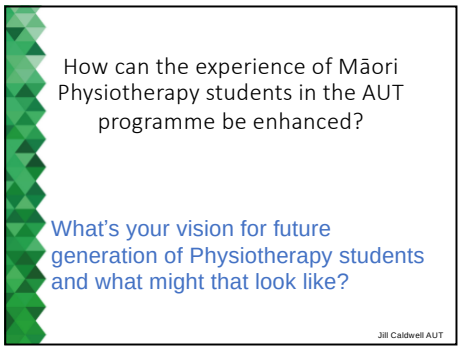

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6

Note. Sample of presentation shown

Appendix G: Exemplar Māori participant information sheet and consent form for kōrero stage one

Participant Information Sheet

Māori experience of AUT Physiotherapy programme-in depth interviews

Date Information Sheet Produced: 20 August 2020

Project Title

A participatory action research study to enhance the experience of Māori Physiotherapy students.

An Invitation Ko kaiterau te maunga
Ko te moana nui a kiwa te awa
Nō te ahi Kaikōura ahau
Ko Jill tōku ingoa
Tēna koe

My name is Jill Caldwell. I am a Physiotherapy lecturer at AUT. Over the last few years I have developed a growing interest in the experience of Māori students who have undertaken the AUT undergraduate Physiotherapy course and I would like to find out what changes could be made within the current Physiotherapy programme that would enhance the experience for Māori. I would like to invite you to participate in this research which I am undertaking to complete a Doctorate of Health Science.

Whether or not you take part is your choice. If you don't want to take part, you don't have to give a reason, and it won't affect any future study opportunities you may choose to take at AUT. If you do want to take part now, but change your mind later, you can pull out of the study at any time.

This Participant Information Sheet will help you decide if you'd like to take part. It sets out why I am doing the study, what your participation would involve, what the benefits and risks to you might be, and what would happen after the study ends. I will go through this information with you and answer any questions you may have. You do not have to decide today whether or not you will participate in this study. Before you decide you may want to talk about the study with other people, such as family, whānau, or friends. Feel free to do this. You are also welcome to have these people come and support you during the data collection part of the study.

If you agree to take part in this study, you will be asked to sign the Consent Form on the last page of this document. You will be given a copy of both the Participant Information Sheet and the Consent Form to keep.

What is the purpose of this research?

The purpose of this study is to directly impact the AUT Physiotherapy programme so that it is more inclusive of Māori. We hope to achieve this outcome by exploring the experiences of Māori students who have studied physiotherapy at AUT and finding out what enables Māori to succeed as Māori. I wish to work together with Māori Physiotherapists who have graduated from the AUT programme to provide some insight as to how to develop the Physiotherapy programme so that it will enable Māori students to thrive. The research will be written up as a doctoral thesis and presented in both written and spoken forms within academic, educational and Physiotherapy clinical forums.

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

You are being invited to take part in this research because you answered an advert for this study. The first phase of the research involves interviewing Māori graduates of the AUT Physiotherapy programme. You have been provided with this information because you have expressed an interest in finding out more about this study and you meet the study inclusion criteria. If you are a graduate of the AUT Physiotherapy programme, identify as Māori and are a currently registered Physiotherapist then you are eligible to participate in this study. It is likely that you were taught by me during your undergraduate qualification however whether you choose to participate or not will not affect any future study opportunities at AUT.

Your Mātauranga (knowledge) is valued and we would like you to contribute to the development of a more culturally inclusive Physiotherapy programme at AUT.

How do I agree to participate in this research?

Once you have contacted me (the primary researcher), the first step to take part in this research is to read and understand this form. Any questions you have can be answered at this time. You will then read and sign the consent form that will be given to you by me.

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

What will happen in this research?

Participation in this research will involve participating in an *interview* to discuss your experiences or highlights from when you were a Physio student at AUT, that enabled you to succeed as Māori. You are welcome to bring a support person to the interview.

You will be interviewed by me along with the support of a Māori member of this project's advisory group. Tikanga protocols will be followed throughout these focus groups also led by a member of the project advisory group. Should you require me to leave the room at any time during the interview I will leave and the member of the project advisory group will continue with the interview process.

During the interview I will be taking notes around themes and ideas that emerge regarding your own experiences as Māori whilst you studied physiotherapy at AUT and asking questions around what would enable Māori to succeed as Māori whilst undertaking the undergraduate Physiotherapy programme at AUT. This is so that changes can be made to the current Physiotherapy programme that could enhance the experience for Māori in the future. The interview will be recorded and transcribed word for word.

The interview will be arranged at a time and place convenient to you and will take approximately 60-70 minutes. The transcript and will be returned to you to confirm that I have understood your story. A second brief interview may be necessary to clarify some details, ask for more specific understandings or to give you an opportunity to share with me stories you have remembered and would like to tell. It may be necessary to clarify details, understanding and to give you an opportunity to add any important information. All detailed information will remain confidential. Your identity will also remain confidential.

What are the discomforts and risks?

It is not anticipated that any harm will come from participating in this research. Any negative feedback you may choose to provide about your time as a student at AUT will not impact your future dealings at AUT. You will be able to withdraw from the project at any stage. During the later stages of the data analysis it may not be possible to fully extricate your contribution from the analysis. If at any stage that you feel uncomfortable during the interview you may withdraw from the research study without any further repercussions. If at any time you feel you need to talk to someone about what was discussed during the interview you will be able to meet with a Māori cultural support person from AUT.

How will these discomforts and risks be alleviated?

It is not anticipated that any harm will come from participating in this research however AUT Health Counselling and Wellbeing is able to offer three free sessions of confidential counselling support. These sessions are only available for issues that have arisen directly as a result of participation in the research, and are not for other general counselling needs. To access these services, you will need to:

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

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

What are the benefits?

The aim of this research study is to create an educational space where Māori feel valued and inspired within the AUT Physiotherapy programme.

Benefits to Māori Physiotherapy graduates: Through the research process you will positioned as a co-researcher. This will promote your voice as Māori enabling Māori knowledge to be prioritised. By participating in this research, you will get an opportunity to work towards developing innovative, culturally inclusive strategies of change within the AUT Physiotherapy programme that will result in a transformational change of the Physiotherapy programme, enabling

Māori to be successful as Māori. A more culturally inclusive Physiotherapy programme will potentially benefit the next generations of future Māori physiotherapy students.

Benefits to wider community: With a more culturally inclusive Physiotherapy programme the long term benefits of this study will be impact positively on health equity for Māori and their whānau as all Physiotherapy graduates will be able to provide culturally responsive health care. This in turn will benefit Māori within the community and the type of healthcare they might expect to receive in the future.

Benefits to researcher: Through this research project I will be able to develop my knowledge around the development of a culturally inclusive undergraduate physiotherapy programme within AUT. This research will enable me to create opportunities to strengthen relationships between Māori and non-Māori working within the AUT Physiotherapy programme and the health sector. This project will also contribute to the completion of a Doctoral degree and future research goals, as well as enhance my role as educator in physiotherapy. The findings from this research project will be written into papers for publication which will therefore contribute to the current body of knowledge regarding factors that might enhance the experience of Māori who undergo Physiotherapy education.

What compensation is available for injury or negligence?

In the unlikely event of a physical injury as a result of your participation in this study, rehabilitation and compensation for injury by accident may be available from the Accident Compensation Corporation, providing the incident details satisfy the requirements of the law and the Corporation's regulations.

How will my privacy be protected?

Your confidentiality and people you describe, will be maintained throughout this research process with no use of names or identifying features. Pseudonyms will be used instead and identifying information removed from transcripts. However, you will have the opportunity to have your work in this research project acknowledged if you wish to be identified.

What are the costs of participating in this research?

The costs of participating in this research will be in time. It is anticipated that 60-70 minutes will be required for the interview and then the possibility of a second shorter (20-30 mins) follow up interview. Some extra time will also be required to review the themes developed from the interview, this is likely to take between 15-30 minutes. The total time required to participate in this study will be 2 hours.

What opportunity do I have to consider this invitation?

This information will be sent to you at least 1 month prior to the interview.

Will I receive feedback on the results of this research?

Yes. You will get feedback from the Interview. I will write a summary of the research findings and distribute this to you for feedback to ensure the information collected is accurate. Published papers will be circulated to you as well.

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, Dr Heather Came, heather.came@aut.ac.nz Phone (09) 9219999 ext 7799

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:

Research Contact Details:

Jill Caldwell

Email: jill.caldwell@aut.ac.nz

Ph 921 9999 ext 7321

Project Supervisor Contact Details:

Dr Heather Came, heather.came@aut.ac.nz Phone (09) 9219999 ext 7799

Approved by the Auckland University of Technology Ethics Committee on 21 August 2020, AUTEC Reference number 20/170.

Consent Form- Interviews

Project title: A participatory action research study to enhance the experience of Māori Physiotherapy students.

Project Supervisor: Dr Heather Came-Friar and Dr Liz Smythe

Researcher: Jill Caldwell

○ I have read and understood the information provided about this research project in the Information Sheet dated 21 August 2021

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

○ I understand that identity of my fellow participants and our discussions in the focus group is confidential to the group and I agree to keep this information confidential.

○ I understand that notes will be taken during the focus group and that it will also be audio-taped and transcribed.

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

○ I understand that all identifying information including my name will be will be removed from the raw data and replaced with a code name to ensure public anonymity.

○ I understand that should I wish for my name and identifying information to remain, then, I can inform the primary researcher who will seek permission from me prior to any publication or presentation of this research.

○ 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, while it may not be possible to destroy all records of the focus group discussion of which I was part, I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.

○ I agree to take part in this research.

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

Participant's signature: .....

Participant's name: .....

Participant's Contact Details (if appropriate):

.....

.....

.....

.....

Date:

Approved by the Auckland University of Technology Ethics Committee on August 21 2020 AUTEC Reference number 20/170

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

Appendix H: Exemplar Māori participant information sheet and consent form online hui stage two

Participant Information Sheet-Māori Physiotherapy Graduate

Māori experience of AUT Physiotherapy programme-focus group 1

Date Information Sheet Produced: 20 August 2020

Project Title

A participatory action research study to enhance the experience of Māori Physiotherapy students.

An Invitation

Ko kaiterau te maunga

Ko te moana nui a kiwa te awa

Nō te ahi Kaikōura ahau

Ko Jill tōku ingoa

Tēna koe

My name is Jill Caldwell. I am a Physiotherapy lecturer at AUT. Over the last few years I have developed a growing interest in the experience of Māori students who have undertaken the AUT undergraduate Physiotherapy course and I would like to find out what changes could be made within the current Physiotherapy programme that would enhance the experience for Māori. I would like to invite you to participate in this research which I am undertaking to complete a Doctorate of Health Science.

Whether or not you take part is your choice. If you don't want to take part, you don't have to give a reason, and it won't affect any future study opportunities you may choose to take at AUT. If you do want to take part now, but change your mind later, you can pull out of the study at any time.

This Participant Information Sheet will help you decide if you'd like to take part. It sets out why I am doing the study, what your participation would involve, what the benefits and risks to you might be, and what would happen after the study ends. I will go through this information with you and answer any questions you may have. You do not have to decide today whether or not you will participate in this study. Before you decide you may want to talk about the study with other people, such as family, whānau, or friends. Feel free to do this. You are also welcome to have these people come and support you during the data collection part of the study.

If you agree to take part in this study, you will be asked to sign the Consent Form on the last page of this document. You will be given a copy of both the Participant Information Sheet and the Consent Form to keep.

What is the purpose of this research?

The purpose of this study is to directly impact the AUT Physiotherapy programme so that it is more inclusive of Māori. We hope to achieve this outcome by exploring the experiences of Māori students who have studied physiotherapy at AUT and finding out what enables Māori to succeed as Māori. I wish to work together with Māori Physiotherapists who have graduated from the AUT programme to provide some insight as to how to develop the Physiotherapy programme so that it will enable Māori students to thrive. The research will be written up as a doctoral thesis and presented in both written and spoken forms within academic, educational and Physiotherapy clinical forums.

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

You are being invited to take part in this research because you answered an advert for this study. This phase of the research involves participating in a focus group along with other Māori Physiotherapy graduates of AUT . You have been provided with this information because you have expressed an interest in finding out more about this study and you meet the study inclusion criteria. If you are a graduate of the AUT Physiotherapy programme, identify as Māori and are a currently registered Physiotherapist then you are eligible to participate in this study. It is likely that you were taught by me during your undergraduate qualification however whether you choose to participate or not will not affect any future study opportunities at AUT.

Your Mātauranga (knowledge) is valued and we would like you to contribute to the development of a more culturally inclusive Physiotherapy programme at AUT.

How do I agree to participate in this research?

Once you have contacted me (the primary researcher), the first step to take part in this research is to read and understand this form. Any questions you have can be answered at this time. You will then read and sign the consent form that will be given to you by me.

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

What will happen in this research?

Participation in this research will involve working in a focus group with other Māori Physiotherapy graduates of AUT. Participation will involve storytelling and designing future directions for the AUT Physiotherapy programme. At times you will work in pairs, small groups and as a whole group throughout the session. During the first stage of this focus group you will be able to discuss your experiences or highlights that enabled you to be successful as Māori. This will then be followed by a discussion around what the AUT Physiotherapy programme could look like in the future so that Māori could achieve success as Māori. Lastly you will be asked to discuss how these ideas could be made into a reality. It is hoped that the collective wisdom of the focus group will help to enable future Māori Physiotherapy students to thrive in an environment that is inclusive of Māori.

I will be running the focus group along with the support of Māori members who are part of an advisory group for this research. Tikanga protocols will be followed throughout these focus groups led by a Māori member of the project advisory group. The focus group will likely take 2-3 hours and will be arranged at a time and place convenient to all.

During the focus group, I will be taking notes around themes and ideas that emerge. Quotes may also be noted without any identifying features. I may also take photos of any discussion or creativity that is presented such as those on a whiteboard or detailed on paper. Please note that large group discussions will be recorded and transcribed. Further analysis will look for themes within the focus group session, and these themes will be used to develop further discussion in subsequent phases of the research. At this stage it may be necessary to clarify details, understanding and to give you an opportunity to add any important information. A summary of these themes will be sent back to you to confirm that I have understood the context around everyone's stories and ideas. All detailed information will remain confidential. Your identity and that of your fellow participants and your discussions in the focus group will be confidential to the group and you will need to agree to keep this information confidential.

What are the discomforts and risks?

It is not anticipated that any harm will come from participating in this research. Any negative feedback you may choose to provide about your time as a student at AUT will not impact your future dealings at AUT. You will be able to withdraw from the project at any stage. During the later stages of the data analysis it may not be possible to fully extricate your contribution from the analysis. If at any stage that you feel uncomfortable during the interview you may withdraw from the research study without any further repercussions. If at any time you feel you need to talk to someone about what was discussed during the interview you will be able to meet with a Māori cultural support person from AUT.

How will these discomforts and risks be alleviated?

It is not anticipated that any harm will come from participating in this research however AUT Health Counselling and Wellbeing is able to offer three free sessions of confidential counselling support. These sessions are only available for issues that have arisen directly as a result of participation in the research, and are not for other general counselling needs. To access these services, you will need to:

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

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

What are the benefits?

The aim of this research study is to create an educational space where Māori feel valued and inspired within the AUT Physiotherapy programme.

Benefits to Māori Physiotherapy graduates: Through the research process you will positioned as a co-researcher. This will promote the voice of Māori enabling Māori knowledge to be prioritised. By participating in this research, you will get an opportunity to work towards developing innovative, culturally inclusive strategies of change within the AUT Physiotherapy programme that will result in a transformational change of the Physiotherapy programme, enabling Māori to be successful as Māori. A more culturally inclusive Physiotherapy programme will potentially benefit the next generations of future Māori physiotherapy students.

Benefits to wider community: With a more culturally inclusive Physiotherapy programme the long term benefits of this study will be impact positively on health equity for Māori and their whānau as all Physiotherapy graduates will be able to provide culturally responsive health care. This in turn will benefit Māori within the community and the type of healthcare they might expect to receive in the future.

Benefits to researcher: Through this research project I will be able to develop my knowledge around the development of a culturally inclusive undergraduate physiotherapy programme within AUT. This research will enable me to create opportunities to strengthen relationships between Māori and non-Māori working within the AUT Physiotherapy programme and the health sector. This project will also contribute to the completion of a Doctoral degree and future research goals, as well as enhance my role as educator in physiotherapy. The findings from this research project will be written into papers for publication which will therefore contribute to the current body of knowledge regarding factors that might enhance the experience of Māori who undergo Physiotherapy education.

How will my privacy be protected?

Notes will be taken about general themes or action points. There may be some quotes noted, these will be unidentified. Your confidentiality and people you describe, will be maintained throughout this research process with no use of names or identifying features. Pseudonyms will be used instead and identifying information removed from transcripts. However, you will have the opportunity to have your work in this research project acknowledged if you wish to be identified.

What are the costs of participating in this research?

The costs of participating in this research will be in time. It is anticipated that 2-3 hours will be required for this focus group. Some time will also be required to review the themes developed from the focus group transcripts, this is likely to take between 15-30 minutes. The total time required to participate in this study will be 3 ½ hours.

What opportunity do I have to consider this invitation?

This information will be sent to you at least 1 month prior to the first focus group.

Will I receive feedback on the results of this research?

Yes. You will get feedback from the focus groups. I will write a summary of the research findings and distribute this to you for feedback to ensure the information collected is accurate. Published papers will be circulated to you as well.

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, Dr Heather Came, heather.came@aut.ac.nz Phone (09) 9219999 ext 7799

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:

Research Contact Details:

Jill Caldwell

Email: jill.caldwell@aut.ac.nz

Ph 921 9999 ext 7321

Project Supervisor Contact Details:

Dr Heather Came, heather.came@aut.ac.nz Phone (09) 9219999 ext 7799

Approved by the Auckland University of Technology Ethics Committee on 21 August 2020, AUTEC Reference number 20/170.

Consent Form- Focus group 1

Māori Physiotherapy graduates

Project title: A participatory action research study to enhance the experience of Māori Physiotherapy students.

Project Supervisor: Dr Heather Came-Friar and Dr Liz Smythe

Researcher: Jill Caldwell

- ○ I have read and understood the information provided about this research project in the Information Sheet dated 21 August 2021
- ○ I have had an opportunity to ask questions and to have them answered.
- ○ I understand that identity of my fellow participants and our discussions in the focus group is confidential to the group and I agree to keep this information confidential.
- ○ I understand that notes will be taken during the focus group and that it will also be audio-taped and transcribed.
- ○ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- ○ I understand that all identifying information including my name will be will be removed from the raw data and replaced with a code name to ensure public anonymity.
- ○ I understand that should I wish for my name and identifying information to remain, then, I can inform the primary researcher who will seek permission from me prior to any publication or presentation of this research.
- ○ 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, while it may not be possible to destroy all records of the focus group discussion of which I was part, I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- ○ I agree to take part in this research.
- ○ I wish to receive a summary of the research findings (please tick one): Yes○ No○

Participant's signature: .....

Participant's name: .....

Participant's Contact Details (if appropriate):

.....

.....

.....

.....

Date:

Approved by the Auckland University of Technology Ethics Committee on August 21 2020 AUTEC Reference number 20/170

Appendix I: Online hui agenda with Māori roopu rangahau

On-line hui Friday 27th August 2021 |

Appreciative Inquiry: Discovery, Dream and Design Collab session**:** Run sheet for Jill & Tammi

6pm -6:15 Jill & Tammi **Main room**	Informally welcome everyone as they entre room Jill take everyone through an orientation of the system including having a play in the breakout rooms
6:15-6:45pm Tammi **Main room**	Mihi Karakia Whanaungatanga: • Everyone to share a story/or talk about a toanga that is meaningful to them • Finish with a **word** to describe the emotion this treasure brings. • Last person to do this is Jill
6:45 -6:50 Jill **Main room**	Welcome Introduction to research, intentions and goals of hui | Share previous **Discovery** [Gain Consent ***Press record]***
6:50-7:00 **Jill** **Main room**	**Complete Task One – (10mins). Press record** **Decide on terminology for core of Appreciative cycle:** What is the outcome desired for Māori Physiotherapy students? **e.g.** *Success? To thrive? Flourish? Well-being?*
7:00 -7:20pm Jill **Breakout rooms**	**Task Two (15 mins)** **Opportunity to Dream** What leads to success/flourishing/thriving…..???? Dream about a Physiotherapy team/department that might foster this: • *What are the possibilities? What do these look like?* • *What does it feel like to be there?* • *What values/behaviours are important?* • *What language describes this?* *OK to use whakataukī, waiata, poems, kupu, drawings etc etc to express this* [Encourage use of white board & write things down on their own paper or on a word document in breakout rooms – take screen shot of white board before coming back into main room]
7.20 – 7:40 Jill & Tammi Main room	**Share dreams Press record** Each group to share their dreams **Once everyone has presented everyone pulls together the key concepts from all dreams presented**
7:40-7:50	**BREAK 10 mins**
7:50- 8:10	**Review: Present key findings from earlier DREAM stage (5 mins) for a refresh.**

Note. Only the first half of agenda is shown here

Appendix J: Section of PowerPoint presented to roopu rangahau

How can AUT Physio team create an inspirational place for Māori Physiotherapy students?

1

2

Mahitahi – collaboration

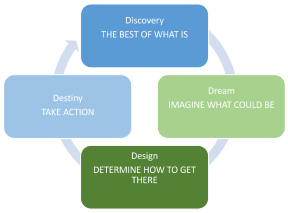
Ehara taku toa
i te toa takitahi
he toa takitini

My strength is not as an individual but as a collective

Sir Apirana Ngata 1874-1950
Mauri ora – wisdom from the Māori world

4

Appreciative Inquiry (AI) – strengths based



5

Discovery Interview themes

Discovery
THE BEST OF WHAT IS

"What were the highlights of your time studying Physio?"
Outcome of conversations: the good, the bad and the ugly…..

Key themes:

- **PLACE- Whānau room**
- Connect with self: Māori identity
- Connect with others
  - **Students – Māori and non-Māori**
    - friendships
    - tuakana/teina
  - Staff

7

Place – Whānau room

8

Note. Sample of presentation shown

Appendix K: Feedback from roopu rangahau following first online hui (stage two)

It was a very amazing and humbling experience to be a part of, I just wanted to say thank you again. (R8, personal communication, August 30, 2021)

*Thank you for last week, it was so cool to share stories in a safe space and get some things off our chest regarding our experiences. (*R6, personal communication, September 2, 2021)

Again, I want to stay thank you for driving this kaupapa. It was heart-warming to be part of that Zoom hui and have some amazing discussions with the rest of the whānau. (R7, personal communication, September, 5, 2021)

Appendix L: Pākehā and Tauiwi physiotherapy educator participant information sheet and consent form stage three pre-destiny

Participant Information Sheet-Physiotherapy educators

Māori experience of AUT Physiotherapy programme-participatory action research

Date Information Sheet Produced: 20 August 2020

Project Title

A participatory action research study to enhance the experience of Māori Physiotherapy students.

An Invitation

My name is Jill Caldwell and I am a Physiotherapy lecturer at AUT. Over the last few years I have developed a growing interest in the experience of Māori students who have undertaken the AUT undergraduate Physiotherapy course and I would like to find out what changes could be made within the current Physiotherapy programme that would enhance the experience for Māori. I would like to invite you to participate in this research which I am undertaking to complete a Doctorate of Health Science.

Whether or not you take part is your choice. If you don't want to take part, you don't have to give a reason. If you do want to take part now, but change your mind later, you can pull out of the study at any time.

This Participant Information Sheet will help you decide if you'd like to take part. It sets out why I am doing the study, what your participation would involve, what the benefits and risks to you might be, and what would happen after the study ends. I will go through this information with you and answer any questions you may have. You do not have to decide today whether or not you will participate in this study. Before you decide you may want to talk about the study with other people, such as family, whānau, or friends. Feel free to do this. You are also welcome to have these people come and support you during the data collection part of the study.

If you agree to take part in this study, you will be asked to sign the Consent Form on the last page of this document. You will be given a copy of both the Participant Information Sheet and the Consent Form to keep.

What is the purpose of this research?

The purpose of this study is to directly impact the AUT Physiotherapy programme so that it is more inclusive of Māori. We hope to achieve this outcome by exploring the experiences of Māori students who have studied physiotherapy at AUT and finding out what enables Māori to succeed as Māori. Exploring the experiences of Māori students who have studied physiotherapy at AUT was the first stage of this research. This next stage is to create an opportunity for Physiotherapy educators to work in collaboration with Māori Physiotherapists who have graduated from the AUT programme to implement change within the Physiotherapy programme so that it will enable Māori students to thrive.

The research will be written up as a doctoral thesis and presented in both written and spoken forms within academic, educational and Physiotherapy clinical forums.

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

You are being invited to take part in this research because you are a Physiotherapy educator at AUT. This phase of the research involves participating in a focus group along with Māori Physiotherapy graduates of AUT to implement change to the current Physiotherapy programme so that it is more culturally inclusive of Māori. You have been provided with this information because you have expressed an interest in finding out more about this study and you meet the study inclusion criteria. If you are an educator permanently employed within the AUT Physiotherapy programme and have an interest in culturally responsive Physiotherapy education, and are available when the focus group is scheduled then you are eligible to be involved. It is likely that we work together at AUT, however whether you choose to participate or not will not affect our working relationship.

How do I agree to participate in this research?

Once you have contacted me (the primary researcher), the first step to take part in this research is to read and understand this form. Any questions you have can be answered at this time. You will then read and sign the consent form that will be given to you by me prior to the start of this research starting.

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

What will happen in this research?

Participation in this phase of research will involve participating in a focus group with Māori Physiotherapy graduates of AUT; members of a Māori advisory group that was established as part of this research; and myself. A meeting prior to the focus group will be arranged to review the rationale for this study, and here you will receive an overview of the Action Research methodology used in this study and its underpinning values. The purpose of this focus group will be to discuss how to develop a Physiotherapy programme that is inclusive to Māori. The role of the Māori Physiotherapy graduates of AUT will be to advise and support the Physiotherapy educators in putting the appropriate plans in place and taking the necessary steps to facilitate change within the programme based on the future directions devised in earlier phases of the research.

The focus group will be arranged at a time and place convenient to all the participants. At the beginning of this focus group we will collectively establish guidelines or ground rules for working collaboratively as an Action Research Group (refer to figure 1 which describes the action research process below).

The model for action research, created by Coghlan and Brannick (2014), is specifically designed for researchers who work within the organisation they are studying and consists of four phases;

- Constructing Action
- Planning Action,
- Taking Action
- Evaluating Action.

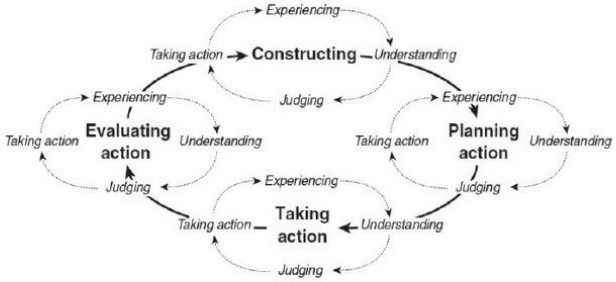


Figure 1: model for action research

Phase 1: Constructing Action

In this first phase a collective understanding of the meaning of a Physiotherapy programme that is inclusive of Māori will be constructed. Data already collected from an earlier focus group with the Māori Physiotherapy graduates will be shared whilst further discussion will be facilitated so that there is a shared understanding between Māori Physiotherapy graduates and Physiotherapy educators as to how to develop the Physiotherapy programme. Acknowledging the importance of this shared relationship and facilitating the opportunity for Physiotherapy educators to work in this shared space with Māori Physiotherapy graduates will enable wise, well informed action to be planned.

Phase 2: Planning Action

The discussion, reflection and themes from the collected data will inform how to implement cultural change into the Physiotherapy programme. Where appropriate, specific tools to measure cultural inclusivity will be identified.

Phase 3: Taking Action

The recommendations suggested to improve inclusivity of Māori in the Physiotherapy programme will be implemented by Physiotherapy educators based on the plan in Phase 2.

Phase 4: Evaluating Action

The actions taken in Phase 3 will be reflected on and data used to inform another progression through the phases.

Tikanga protocols will be followed throughout these processes. These processes will be explained to all members of the group. The focus group will likely take 2-3 hours. Additional time may be spent with respect to Physiotherapy programme development but not over and above the normal expectations of programme/curriculum development. Further consent would be obtained for any additional involvement.

During the focus group, I will be taking notes around themes, ideas and suggestions that emerge. Quotes may also be noted without any identifying features. I may also take photos of any discussion or creativity that is presented such as those on a whiteboard or detailed on paper. The main group discussions will be recorded and transcribed. The transcript will be returned to the group to confirm that I have understood the thread of discussion. At this stage it may be necessary to clarify details, understanding and to give you an opportunity to add any important information. Further analysis will look for themes within the focus group sessions, and these themes will be used to develop further discussion in subsequent phases of the research. All detailed information will remain confidential. Your identity and that of your fellow participants and your discussions in the focus group will be confidential to the group and you will need to agree to keep this information confidential.

What are the discomforts and risks?

It is not anticipated that any harm will come from participating in this research. You will be able to withdraw from the project at any stage. During the later stages of the data analysis it may not be possible to fully extricate your contribution from the analysis. If at any stage that you feel uncomfortable during the focus group you may withdraw from the research study without any further repercussions.

How will these discomforts and risks be alleviated?

It is not anticipated that any harm will come from participating in this research however AUT Health Counselling and Wellbeing is able to offer three free sessions of confidential counselling support. These sessions are only available for issues that have arisen directly as a result of participation in the research, and are not for other general counselling needs. To access these services, you will need to:

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

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

What are the benefits?

The aim of this research study is to create an educational space where Māori feel valued and inspired within the AUT Physiotherapy programme.

Benefits to the educator: Physiotherapy educators will be able to contribute to the development of a culturally inclusive undergraduate physiotherapy programme within AUT. Physiotherapy educators will develop an improved understanding of cultural pedagogical practices as a result of the AUT Physiotherapy programme being more inclusive to Māori.

Benefits to researcher: Through this research project I will be able to develop my knowledge around the development of a culturally inclusive undergraduate physiotherapy programme within AUT. This research will enable me to create opportunities to strengthen relationships between Māori and non-Māori working within the AUT Physiotherapy programme and the health sector. This project will also contribute to the completion of a Doctoral degree and future research goals, as well as enhance my role as educator in physiotherapy. The findings from this research project will be written into papers for publication which will therefore contribute to the current body of knowledge regarding factors that might enhance the experience of Māori who undergo Physiotherapy education.

How will my privacy be protected?

No names will be associated with the transcripts of the group discussions or the reflections. Any data or quotes used in the final resource or summary report will be checked with the participants prior to use and will have no name or other identifiable information associated with the material. Limited confidentiality only can be guaranteed, however, as another member of the organisation may be able to recognise your comments. You will be given an opportunity to review themes from the focus group transcripts for accuracy. The information shared will be stored in a secure storage area or electronically in a password protected location.

What are the costs of participating in this research?

You will be able to participate during work time. There should be no costs associated with participating in the study. It is anticipated that up to 2 -3 hours will be required for action research education session and focus group. Some time will also be required to meet with the other Physiotherapy educators involved in this research to review and discuss the effect of change within the Physiotherapy programme, although this will be considered part of normal teaching and learning evaluation processes as an educator within the programme. The line manager for the Physiotherapy educators will be fully aware of the commitment of Physiotherapy educators to this research project. The total time required to participate in this study will be 3 hours.

What opportunity do I have to consider this invitation?

This information will be sent to you at least 1 month prior to the focus group. We would appreciate it if you could advise us whether you consent to being part of the study by phoning or emailing Jill Caldwell using the contacts listed below. If you would prefer a face to face discussion to provide informed consent this can be organised.

Will I receive feedback on the results of this research?

Yes. A summary of the findings of the study will be provided to you through each phase of the study, as well as a final report at the conclusion of the study. Any published papers will be circulated to you as well.

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, Dr Heather Came, heather.came@aut.ac.nz Phone (09) 9219999 ext 7799

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:

Research Contact Details:

Jill Caldwell

Email: jill.caldwell@aut.ac.nz

Ph 921 9999 ext 7321

Project Supervisor Contact Details:

Dr Heather Came, heather.came@aut.ac.nz Phone (09) 9219999 ext 7799

Approved by the Auckland University of Technology Ethics Committee on 21 August 2020, AUTEC Reference number 20/170.

Consent Form- Focus group 2

Physiotherapy educators

Project title: A participatory action research study to enhance the experience of Māori Physiotherapy students.

Project Supervisor: Dr Heather Came-Friar and Dr Liz Smythe

Researcher: Jill Caldwell

- ○ I have read and understood the information provided about this research project in the Information Sheet dated 21 August 2021
- ○ I have had an opportunity to ask questions and to have them answered.
- ○ I understand that identity of my fellow participants and our discussions in the focus group is confidential to the group and I agree to keep this information confidential.
- ○ I understand that notes will be taken during the focus group and that it will also be audio-taped and transcribed.
- ○ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- ○ I understand that all identifying information including my name will be will be removed from the raw data and replaced with a code name to ensure public anonymity.
- ○ I understand that should I wish for my name and identifying information to remain, then, I can inform the primary researcher who will seek permission from me prior to any publication or presentation of this research.
- ○ 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, while it may not be possible to destroy all records of the focus group discussion of which I was part, I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- ○ I agree to take part in this research.
- ○ I wish to receive a summary of the research findings (please tick one): Yes○ No○

Participant's signature: .....

Participant's name: .....

Participant's Contact Details (if appropriate):

.....

.....

.....

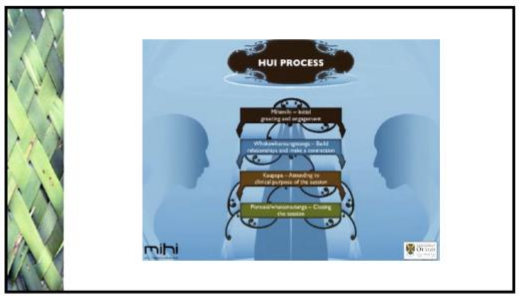
Date:

Approved by the Auckland University of Technology Ethics Committee on August 21 2020 AUTEC Reference number 20/170

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

Appendix M: Example of presentation to Pākehā and Tauiwi physiotherapy educators for hui stage three pre-destiny phase

1



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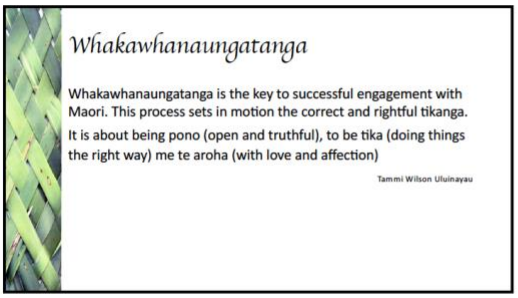
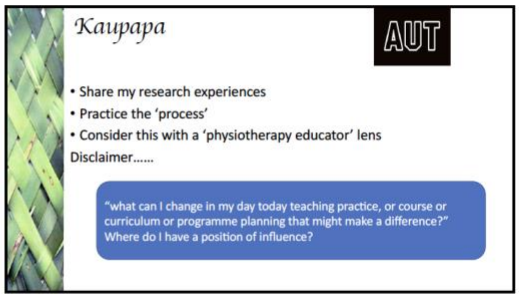


3



4

Note: First four slides of presentation depicted here that begins with outlining the Hui process

Appendix N: Evidence of culturally responsive physiotherapy education in my own teaching practice

My own practice in physiotherapy education has already changed in response to beginning this research journey. Staying true to the change approach adopted for the research has meant that change was immediately incorporated into my own teaching practices. The findings from this research challenged me to reflect on how I engage Māori students in teaching and learning situations. I now think more carefully about creating more welcoming and collaborative teaching spaces, so Māori students may feel culturally safe to participate. Evidence of this change includes adopting strength-based approaches to improving Māori health within course materials, prioritisation of building relationships with students in all courses I teach, and continuing to nurture these relationships, especially with Māori students, outside of formal class time. In addition, I listen more carefully to Māori students' aspirations so that I can help create the opportunities needed to achieve these.

Adopting a Guided Discovery Learning approach (a collaborative style of teaching and learning) has supported my changing practice. This is a hybrid model based on the principles of Problem Based Learning that engages a collaborative teaching and learning style (Korpi et al., 2018). This approach to teaching and learning has been adopted for the last 2-years to teach musculoskeletal physiotherapy practice at undergraduate level in the programme. This mode of learning uses a constructivist approach where students are encouraged to bring experiences and knowledge from previous learning to support the discovery of new knowledge.

Involving educators and students working together, subsequently promotes opportunities for ako (a kaupapa Māori pedagogy based on reciprocal teaching and learning) and reduces existing power dynamics (Bishop & Berryman, 2009). I have noticed that in inviting such spaces, Māori voices are stronger. Lastly, through my new learnings, my sense of social justice has strengthened. I am gaining more confidence to advocate for Māori within spaces where they are not heard.

Appendix O: Lessons learnt through this research process

Key learnings	How these were honoured
Relationship come before anything else	Relationships take time so prioritise time to nurture these.
Listen	Make time for listening and actively listen.
Gain trust & uphold the mana of others	Be respectful of others and their values. Ensure interactions invoke a balance of power. Take the time to deepen your knowledge on all things Māori. Be humble, act with integrity and humility at all times.
Seeking support	Establish and maintain Māori support systems leading up to and during the research process and acknowledge their contribution appropriately. Acknowledge you are not the expert.
The power of self-determination	Seek advice from Māori before you begin and be willing to let others contribute to the decision-making process; be open to different ways of doing things, and trust the process.
Reciprocity	People in a relationship support each other. Consider how you will give back to those who have supported you in the research. Reciprocity starts before the research journey. Earn some respect before you begin.
Research is not a tick box process	There is no manual. Engaging in Māori-centred research is an experiential process. Learning comes with doing.
Do not make assumptions	Māori are not homogenous. Build relationships first to find out how to create a space that is culturally safe for Māori.
Engage in reflexivity and be brave	Consider your actions, the impact of these and the need to adapt when required. Sit with feelings of being uncomfortable; learn from your mistakes and do better next time.
The gift of wisdom is a taonga	Be respectful of the gift of knowledge. Acknowledge those who own the knowledge, and protect and care for it appropriately.
Be a good human	Treat people with respect, and the kindness they deserve.