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To cite this article: Becky Sheehy, Dianne Wepa & Julie M. Collis (27 Oct 2025): “You’re the touch point”: Indigenous Māori solutions for culturally safe hand therapy, *Disability and Rehabilitation*, DOI: [10.1080/09638288.2025.2577876](https://doi.org/10.1080/09638288.2025.2577876)

To link to this article: <https://doi.org/10.1080/09638288.2025.2577876>



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Published online: 27 Oct 2025.



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“You’re the touch point”: Indigenous Māori solutions for culturally safe hand therapy

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ABSTRACT

Purpose: Culturally safe rehabilitation must be informed by service user perspectives, including those of Indigenous people. However, little is known about Māori patient experiences of rehabilitation in Aotearoa New Zealand, particularly in hand therapy. This study explored Māori experiences and their proposed solutions to enhance culturally safe hand therapy services.

Methods: A qualitative study was conducted using exploratory, semi-structured interviews. Data were analysed using reflexive thematic analysis.

Results: Fifteen adult Māori hand therapy patients were interviewed. Five themes were generated that describe Māori experiences of hand therapy and incorporate participants’ suggested solutions for improving cultural safety. Participants emphasised the importance of strong initial connections with staff, the positive atmosphere of hand therapy, the value of therapeutic relationships, the need to integrate Māori practices and culturally appropriate interventions, and the provision of holistic care.

Conclusions: Māori experiences in hand therapy offer valuable insights into culturally safe rehabilitation. Findings highlight the roles of connection, cultural responsiveness, enabling participation in culturally relevant occupations and clinician reflexivity in fostering culturally safe practice. Embedding Māori practices and holistic approaches are tangible steps towards normalising positive rehabilitation experiences for Māori in hand therapy and other rehabilitation settings.

ARTICLE HISTORY

Received 31 January 2025
Revised 14 October 2025
Accepted 16 October 2025

KEYWORDS

Hand therapy; Māori; cultural safety; Indigenous; rehabilitation; qualitative research; New Zealand



> IMPLICATIONS FOR REHABILITATION

- Building meaningful connections is a crucial element of culturally safe care for Māori
- Although health inequities can feel insurmountable, individual clinicians play a key role in redressing imbalances by facilitating positive and culturally safe rehabilitation experiences for Indigenous people
- Cultural safety is a worldwide imperative for rehabilitation professionals working with Indigenous people

Introduction

There are increasing calls for cultural safety to become a mainstay in rehabilitation practice so that health inequities experienced by Indigenous people can be addressed and ultimately eliminated [1,2]. In Aotearoa New Zealand (hereafter Aotearoa), cultural safety emerged as a response to concerns for the health of Māori, the Indigenous people of Aotearoa [3]. Internationally, cultural safety is being embedded into health policy and practice. Rehabilitation regulatory bodies now require clinicians to demonstrate cultural safety when working with Indigenous people as part of their core competencies [4–6].

Culturally safe practice encourages clinicians to reflect critically on the inherent assumptions and privileges rooted in Eurocentric foundations of rehabilitation and allied health [7,8]. By Eurocentric, we refer to the colonial worldviews and clinical models grounded in Western European traditions that continue to shape rehabilitation practice and marginalise Indigenous perspectives [9]. While some overlap exists

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between Indigenous and rehabilitation approaches to health, tensions arise when Eurocentric frameworks are used with Indigenous patients because there is a clash of worldview [10]. For culturally safe practice to be realised, the impacts of colonisation on rehabilitation, and the allied health professions, must be critically examined by those within the sector.

Indigenous perspectives are essential to shaping culturally safe rehabilitation services. Indigenous knowledge and experiences are vital because cultural safety is defined by the service user and these views shed light on the ways in which colonialism continues to affect rehabilitation experiences [3]. To contribute to understandings of Indigenous perspectives on rehabilitation, we conducted a scoping review of Māori rehabilitation experiences in Aotearoa [11]. The review highlighted inconsistent delivery of culturally safe care for Māori. Māori often encountered rehabilitation that felt culturally alien and unwelcoming, which limited engagement [11]. This evidence suggests that rehabilitation services continue to fall short in meeting Māori health needs.

Although our review identified culturally unsafe care in various areas of rehabilitation, no research was found that specifically focused on hand therapy. We wanted to find out whether Māori experience hand therapy in the same ways they experience rehabilitation in other contexts. Hand therapy is a subdiscipline of occupational therapy and physiotherapy that provides rehabilitation for conditions affecting the upper limb, including trauma, disease, and congenital deformity. Internationally, hand therapy is deemed an essential component of upper limb rehabilitation [12]. As such, hand therapists have a role in answering the international call for delivery of culturally safe rehabilitation for Indigenous people.

Hand therapy, as a discipline, sits at the intersection of two professional frameworks. Occupational therapists and physiotherapists work in an interprofessional manner but bring unique understandings to clinical practice and to the shared understandings of cultural safety. In occupational therapy, the concept of occupation is embedded within culture. Occupation is understood to foster cultural connection, identity, and collective wellbeing. However, it has been argued that because occupational therapy, like other rehabilitation professions, has been shaped by Eurocentric and individualistic assumptions, occupation itself can either reinforce colonial ideologies or serve as a means of decolonisation and social change [7,9]. This example illustrates how distinct disciplinary perspectives can inform broader interprofessional discussions about cultural safety and decolonising practice in rehabilitation.

Within this context, this study explored Māori experiences of hand therapy and identified participant-proposed solutions to enhance culturally safe service delivery. The research aimed to inform clinicians on how to adapt their practice to better support culturally safe interactions with Māori, with potential relevance across rehabilitation sectors and other Indigenous health contexts more broadly.

Methods

Study design

A qualitative study using an interpretive description methodology was undertaken. Interpretive description is a qualitative approach that aims to produce findings that inform clinical practice through co-construction of knowledge between researcher and participant [13]. A Tiriti o Waitangi informed approach underpinned this study. Te Tiriti o Waitangi (hereafter Te Tiriti) is a treaty that was signed in 1840 by Māori leaders and the Queen of England's representative. The Tiriti-informed approach recognises Māori self-determination as affirmed in Te Tiriti, focuses on Tiriti promises of Māori health equity and on the partnership envisioned between Pākehā [New Zealander of European descent] and Māori [14,15].

The study was approved by AUTECH (the Auckland University of Technology Ethics Committee) on 21/03/2023, number 23/12.

Participants and setting

Participants were recruited through public and private hand therapy clinics across Auckland—Aotearoa's largest urban centre, home to the country's largest Māori population [16]. Hand therapy clinics are more widespread in Auckland than in many other regions [17]. Hand therapy is largely provided by private practices, with costs usually subsidised by the Accident Compensation Corporation (ACC) in the case of

injury. ACC is a national, compulsory, no-fault personal injury insurance scheme that covers treatment costs, with patients typically paying a small co-payment. Other insurance sources in Aotearoa are privately funded. Private health insurance uptake in Aotearoa remains relatively low, with approximately 30% of the population covered (Financial Services Council, 2024) [18]. For non-injury conditions, individuals may pay privately or access private health insurance. Public hospital inpatient and outpatient services are also key providers of hand therapy with no associated cost to the patient [19].

Participant recruitment was by way of advertisement in hand therapy clinics and clinician invitation. Hand therapy clinics were asked to display a poster and share study details directly with potential participants. Patients who expressed interest were then contacted to arrange an interview. The first 15 participants who expressed interest and met the eligibility criteria were interviewed. Eligible participants were Māori adults (aged 18+) who had attended at least two hand therapy appointments at a clinic in Auckland in the past 6 months. Individuals were excluded if they had received hand therapy directly from the researcher. Informed consent was obtained at the time of interview.

Data collection

Semi-structured exploratory interviews were carried out by the first author and took place in person, by phone or videocall. Face-to-face interview locations were chosen by participants who were also encouraged to bring whānau [family] support if desired. Interviews followed the Pōwhiri Process, a culturally recognisable approach that prioritises positive relationship building with Māori during research. The Pōwhiri Process has four stages: Beginning with karanga [call of welcome], an invitation to participate in the research. Followed by mihimihi [greeting, introduction], a stage that focuses on introductions and connection. Whaikōrero [formal speech] is the next stage and provides space for data collection through listening and discussion. Finally, koha [gift] is an expression of appreciation for the stories shared during the interview [20].

An interview guide, informed by prior research and clinical insights, was used to support the semi-structured interviews. Questions explored treatment experiences, staff relationships, and broader system issues including colonisation and racism. The guide was treated as an iterative document, with adjustments made in response to emerging insights as interviews progressed. Open-ended questions were used as prompts to guide conversation. This was a flexible approach that allowed the interviewer to follow participants' stories and explore ideas in greater depth, consistent with interpretive description.

Study rigour

An essential element of rigour for interpretive description and culturally safe research is to recognise the influence of researcher positionality on study design, data collection and analysis [21,22]. This research was conducted by a cross-cultural team. The second author is of Ngāti Kahungunu descent [Māori tribal affiliation], the first author is an Irish immigrant to Aotearoa, and the third author is Pākehā [New Zealander of European descent].

As a cross-cultural team, we recognised the importance of cultural safety and the need to critically reflect on power dynamics and worldviews that can influence research involving Māori participants. Oversight of cultural safety for this research lay with the second author. Ongoing discussion between research team members supported reflexivity, strengthened ethical decision-making, and guided interpretation of participants' experiences. Reflexive practices included journaling and regular team discussions. These processes helped identify biases, such as initial discomfort in discussing racism with participants, and a tendency to interpret experiences through a Eurocentric clinical lens. Such issues were addressed through rewording of interview prompts and critical team dialogue.

To enhance the trustworthiness of data analysis, initial themes were shared with participants during an online hui [meeting] (Burdine et al. 2021)[23]. All participants were invited and four attended. Feedback from participants helped refine language used, clarify points of emphasis for final themes, and ensure the findings reflected Māori perspectives and participants' intended meaning. This process strengthened the credibility of the findings and demonstrated accountability to participants.

Further detail on the study's ethical foundations, research team structure, and approach to cultural safety is available in the published protocol [15].

Data analysis

Data were analysed using reflexive thematic analysis as described by Braun and Clarke [24] to explore patterns of meaning across the dataset. This method was chosen because it enabled in-depth analysis of qualitative data including explorations of concepts like privilege and racism that overtly and covertly exist in health encounters involving Indigenous people.

Interviews were audio recorded and transcribed by the first author using intelligent verbatim, a method of interview transcription that omits repetitions and corrects minor grammar while remaining faithful to participant narratives [25]. Familiarisation occurred through repeated listening to interview recordings, transcription, and reviewing transcripts. Transcripts were exported to NVivo 14 for coding. Codes were developed inductively from the data using descriptive and interpretive labels. Codes were visualised on an online whiteboard for comparison and grouping to develop patterns of meaning from the data. Themes were generated and then discussed within the research team. Points of analysis requiring a Māori lens were clarified with the second author. Themes were finalised and named by consensus.

Results

Participants

Fifteen participants were interviewed between June and November 2023. Participants were offered the option to choose a pseudonym for presentation of their data and eight participants chose to do so. Table 1 provides a summary of participant details.

Themes

The findings of this study describe the relational and cultural dimensions of hand therapy that influenced Māori participant experiences. Rather than focusing solely on physical treatment, participants described how connection, trust, cultural inclusion, and holistic care shaped the quality of their rehabilitation journey. Central to participant narratives was a strong sense that the therapeutic relationship with the hand therapist could either shelter or expose Māori to the harms commonly encountered by Indigenous people in health care. These experiences were synthesised into five themes: Building a bridge to hīkoi [journey] hand in hand; Keeping negative health experiences at arm's length; Cultural connections are straight up magic; The hand therapist as a taonga [treasure]; Hei haumarū kei aku ringa [there is shelter at hand]. Each theme reflects participant experiences and their proposed solutions for culturally safe hand therapy. Quotes are included to illustrate the themes and were selected to be representative of the perspectives of all participants.

Table 1. Participants.

Name	Interview	Hand therapy clinic type	Hand condition type	Management	Funding	First time attending hand therapy	Discharged from hand therapy at time of interview	Hand therapy referral source
Anna	In person	Private	Injury	Conservative	ACC	No	Yes	Physiotherapist
Ariana	In person	Private	Injury	Conservative	ACC	No	No	Self
Booboo	Video call	Private	Injury	Surgery	ACC	Yes	No	Hand surgeon
Brooke	In person	Private	Injury	Conservative	ACC	No	No	Emergency Department
Catherine	In person	Public	Acquired	Surgery	Public	No	No	GP
Cynthia	In person	Private	Injury	Surgery	ACC	Yes	No	Hand surgeon
Kevan	Phone call	Private	Injury	Surgery	ACC	Yes	Yes	Hand surgeon
Kiriwai	Videocall	Private	Injury	Conservative	ACC	Yes	Yes	GP
Mereana	In person	Private	Injury	Conservative	ACC	Yes	Yes	GP
Purerehua	In person	Private	Injury	Conservative	ACC	No	No	Self
Shanan	In person	Private	Injury	Conservative	ACC	No	Yes	Self
Sophie	In person	Private	Injury	Conservative	ACC	No	No	GP
Tracy	Phone call	Private	Injury	Conservative	ACC	Yes	No	Emergency Department
Tūāwhiorangi	In person	Private	Injury	Conservative	ACC	No	No	GP
Whetū	Video call	Private	Acquired	Surgery	Private	No	Yes	Hand surgeon

Theme 1: Building a bridge to hiko hand in hand

This theme describes the shared journey of the patient and therapist during hand therapy. Journeying alongside one another towards the goal of recovery enabled collaborative engagement throughout hand therapy—a journey described by one participant as building a bridge and walking over it hand in hand with her hand therapist.

Before building a bridge together, the patient and hand therapist held individual positions that set the tone for the journey to come. Participants started with their own expectations for health encounters, influenced by whānau [family] or their own past health experiences. Participants described motivations for wanting to engage that led them to begin their journey with hand therapy including experiencing disruption to normal daily activities, concern about long-term function, and wanting to be well for their whānau.

If you're a grandparent and you have some kind of injury, you do your best to keep yourself on top of it. Not only for your own sake but for the sake of your children and your grandchildren...

(Tracy)

Participants recognised that the cultural positioning and self-awareness of their hand therapist influenced the hand therapy journey. Therapists who had engaged in reflective work around their own culture and the colonial context of Aotearoa were seen as more prepared to build meaningful connections with Māori. For participants, the therapist's self-awareness was conveyed through their āhua [presence], wairua [spirit, vibe], and the way they connected with each other. Participants suggested that this type of reflection be undertaken before engaging with Māori, noting that it contributes to a sense of trust and openness within the therapeutic relationship. As one participant explained:

You can feel it within their āhua [and] wairua that [the hand therapist] made the effort to be aware of it. It's important for you to know who you are. If there have been wrong doings against Māori within your whānau, that's ok... you didn't do it personally, it was your tīpuna [ancestors], but it's about acknowledging it...It's a big fish to swallow but single bites and you get through it...

(Purerehua)

Building a bridge of connection started for participants with first impressions, which determined their levels of engagement with hand therapy. The role of the receptionist was integral in making first impressions for many. The welcoming feel of a clinic created a healing space for participants that they could enter with confidence. One participant related the initial interaction with staff to a karanga [call of welcome] on the marae [Māori meeting place].

The first person...you meet when you go into a building...it's like the marae when you get the welcome...someone doing the karanga, and if it doesn't have that thing in it, you already know...they don't want me.

(Cynthia)

Whakawhanaungatanga, a Māori concept describing the process of creating meaningful connections, underpinned every step of the hand therapy journey. Participants consistently described casual conversation and sharing personal information as cornerstones of whakawhanaungatanga. Participants felt that interactions were genuine when they were getting to know their therapist on a more human level. Building a connection in this way meant that participants looked forward to their appointments, were confident to discuss concerns and ask questions, and were more likely to listen to instructions given.

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

(Ariana)

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

This theme outlines the positive characteristics of hand therapy services that enhanced the care experience for participants. While the main positive feature of hand therapy was the therapeutic relationship, as described in Theme 4, this theme focuses on the structural and clinical aspects of hand therapy that contributed to a sense of safety, trust, and effectiveness. These features helped to keep previous negative healthcare experiences at arm's length, allowing participants to engage more openly and confidently. Although comparison

with other health services was not the focus of interviews, participants frequently referenced past negative experiences to highlight what made hand therapy feel different and more culturally safe.

Participants reflected on their expectations of hand therapy, which were often low due to prior negative health experiences. These past experiences contributed to a cautious stance when entering hand therapy. In other settings, such as emergency departments, inpatient wards, outpatient clinics, or primary care, participants described feeling rushed and that they were just the next patient in line. Participants described negative encounters where they felt belittled, dismissed, and misunderstood during interactions with health professionals. Participants were prepared to and subsequently faced discrimination in health settings and reportedly modified their behaviour based on the wairua of staff and atmosphere of a clinic. Some disengaged from services entirely when they felt unsafe. Others held back emotional responses for fear that their frustration would be misinterpreted as aggression because they were Māori.

You know, we're human and we get frustrated and when we vent that frustration straight away it's aggression...So how do we express that without looking aggressive? I really don't know...

(Catherine)

In contrast, participants frequently described hand therapy as a more positive and manageable experience. Appointments were perceived as well organised, unrushed, and efficient. Despite the short appointment duration, participants felt that a great deal was achieved in a short time, which created a sense of trust in the process. Participants highlighted that hand therapy exercises were achievable, requiring no special equipment, and allowing rehabilitation to continue easily outside the clinic.

Treatment for the hand was seen as a breeze compared to more serious health conditions, such as cancer, or treatment for more intimate body parts. The hands-on nature of care and face-to-face contact were seen as unique to hand therapy. For participants, this closeness enabled the development of trust and communication with clinicians. The comforting touch in hand therapy was described in stark contrast to quick, one-sided consultations or the coldness of being touched through a medical instrument experienced in other settings.

Participants appreciated the expertise that hand therapists displayed. One of the most frequently reported differences noted by participants between hand therapy and other services was the level of explanation given by hand therapists regarding their care. Hand therapists were found to take the time to ensure they shared their specialist knowledge in a way that could be understood.

Going to a hand therapist means they know what you need, they're not just wrapping you in bandages or massaging your fingers when you should be resting, stretching your fingers when you shouldn't be...When others don't specialise in something...they haven't taken that time to have a better understanding of it

(Purerehua)

While most accounts of hand therapy were positive, not all participants had the same experiences. The main difference for those who had negative experiences was that the relationship with their hand therapist was distant and formal. Additionally, participants felt that recognition of ethnicity or culture was lacking, with minimal acknowledgement of te ao Māori [Māori worldview]. Some participants recalled ticking a box on a form as the only time ethnicity or culture was mentioned. Other participants felt indifferent about their hand therapy experiences, describing it as no different to the lack of cultural connection experienced in other settings.

I can't think of any experiences where they've gone into te ao Māori in any kind of detail or included that as part of the overall session or treatment. So, [hand therapy] wasn't different from anything else, which is not necessarily a good thing

(Kiriwai)

Theme 3: Cultural connections are straight up magic!

Theme 3 depicts the significant impact of cultural connections for participants. This theme also includes considerations suggested by participants for creating cultural connections during hand therapy. Cultural connections were not often encountered in healthcare or hand therapy, but when present had a considerably positive effect on participants. One participant described the depth of cultural connection he experienced at a clinic with a Māori carving at reception that led to him feeling welcome and seen.

You walk in and there's this stunning carving...it's just so cool and it makes you feel connected straight away, as soon as you're standing in front of it...Being Māori and growing up with a lot of that kind of culture and remembering...seeing all the carvings...it's like a flood, like a rush of cultural connection

(Shanan)

Participants reported that when staff used te reo Māori [Māori language] in greeting or during appointments it enhanced cultural connection and cultural safety. Active inclusion of whānau was described by participants as uplifting and essential to incorporating te ao Māori. Participants felt comfortable with Māori clinicians who shared cultural understanding and intuitively knew about whānau health approaches. Increasing the Māori hand therapy workforce was seen by participants as another positive move towards boosting Māori connectedness.

I feel more comfortable talking with Māori and greeting Māori than I do outside that space because it just feels foreign...it just doesn't feel as accepted even though it probably is, you still have this apprehension...

(Anna)

The notable absence of te ao Māori and tikanga [cultural protocols and practices] in health spaces and hand therapy was felt by participants to depict a lack of solidarity or inclusion. Participants felt that efforts could be made to enhance cultural connection by displaying Māori art and te reo Māori signage, having elements of the natural environment such as pot plants, or including elements of rongoā Māori [traditional Māori healing] such as topical ointments for massage.

When asked about incorporating te ao Māori into their hand therapy, participants struggled to imagine how it would be integrated. Some participants were wary of the perceptions of people from other cultures and questioned whether services would view engaging with te ao Māori as valuable practice. Participants did not expect te ao Māori to feature in health or hand therapy encounters but reported they would welcome offers of its inclusion. Participants did caution that Māori question the motivations of apparent tokenistic inclusion of te ao Māori. To counter this perception, participants emphasised that need for services to reflect the diversity of Māori lived realities, values and beliefs, and to genuinely embed te ao Māori across all aspects of care.

Every morning out in the foyer you can hear waiata Māori [songs] and they start with a karakia [prayer]...So when I came to Auckland I never saw any of that, apart from the door's got the label of door on it and catchphrases everywhere...but where are the actual Māori...or the greeting in Māori, where's the welcoming...where's the warm welcome to this place...

(Mereana)

Theme 4: The hand therapist as a taonga

Theme 4 relates to the relationship built over time with the same hand therapist that was held as a taonga for those participants who had a positive hand therapy experience. This theme also describes the opportunities that arise from this relationship to provide holistic, culturally appropriate, and empowering care for Māori.

I feel like I'm always there early or on time. I look forward to those appointments, more than any of my other appointments...That's probably the only...medical service, I don't feel like I have to go sit in the corner...the relationship that we have now and built up over the past seven weeks...it's just like we're friends...having that relationship there is like I don't have to walk in like I'm that small girl anymore

(Booboo)

Participants described characteristics displayed by their hand therapist that led to the development of a treasured relationship. Participants valued hand therapists who were friendly, engaging, and clearly passionate about their job. Humility was a favoured characteristic, with participants appreciating a hand therapist who was open when they did not know the answer and was proactive in finding someone who did.

Participants felt listened to and respected, and that they could trust their hand therapist. The close connection meant that participants looked forward to and enjoyed their appointments and therefore prioritised attendance, despite having competing commitments in their lives

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

(Kevan)

The treasured relationship meant working together on goals that were based on what participants wanted to achieve. Participants found that they could collaborate with their therapist to find interventions that were tailored to them. Hand therapists also provided a roadmap for what to expect and celebrated milestones achieved with participants. Seeing progress and knowing recovery was on the right trajectory enriched the hand therapy process for participants.

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

(Whetū)

Many participants felt that their bodies, emotions, and wairua were safe in their hand therapist's care. Participants suggested the relationship would therefore enable hand therapists to offer elements of te ao Māori in culturally safe and relevant ways. It was suggested that there would be power in just offering to include te ao Māori which could be an opening to the magic of cultural connections, as described in Theme 3.

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

Theme 5: Hei haumarū kei aku ringa

The title of this theme is an adaptation of the whakataukī [Māori proverb] *he kai kei aku ringa*. The meaning of this whakataukī speaks to using the resources available at hand to thrive and live well [26]. This theme describes some of the ways that hand therapy could provide holistic wrap-around services and resources to shelter Māori health and wellbeing. This theme suggests moving beyond hand therapy that focuses only on an injury to incorporating wider health factors. In considering wider health factors, hand therapy services could help with the provision of health resources needed to live well. One participant spoke about the compartmentalisation of the health system and te ao Māori values. In discussing this topic, she gave the example of health services using te reo Māori terms but failing to provide services reflective of the deeper meaning behind these terms.

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

(Tūāwhiorangi)

Participants felt it was important to recognise that the injured hand was attached to a person and appreciated it when their hand therapist treated them as a whole person. A suggested addition for providing hand therapy services that shelter Māori was the inclusion of holistic Māori health approaches by considering lifestyle factors, diet, and offering rongoā Māori. Holistic care was described as involving more time for whakawhanaungatanga, increased care for wairua, regard for psychosocial factors, and support to find natural remedies. Additionally, participants encouraged hand therapists to follow tikanga. For example, explicitly gaining consent before touching someone's head during an assessment in acknowledgement of the tapu [sacredness] of the body. Another example suggested was holistic discussions around pain because Māori will often downplay or deny pain, not wanting to appear weak, cause a fuss, or take focus from other whānau.

Manaakitanga [kindness, hospitality, care] was consistently suggested by participants as a way hand therapy services could shelter Māori. Manaakitanga is a te ao Māori concept that speaks to concern for others and the protection of mana [status] through acts of generosity, kindness, and support [27]. Because Māori often associate medical spaces with harm, softening clinical surroundings by intentionally welcoming whānau, offering refreshments, and having soft furnishings, were suggested to boost manaakitanga. Visual elements of the natural environment eased the sterile atmosphere of a clinic. Pot plants were noticed by participants and linked the space to Papatūānuku [Mother Earth].

Something to make the space feel...that they're in a safe place...encouragement for support people is something that could be improved...A lot of the time [clinics] are small, and you don't get the whole 'bring everyone in' [feel]
(Brooke)

Participants were aware of the many reasons that Māori have limited access to healthcare. Participants therefore suggested that hand therapy services address barriers including cost, transport, ensuring physical accessibility to the clinic for all whānau age groups and mobility needs, and support with bureaucratic tasks. Furthermore, participants suggested that hand therapists and other health providers work together to provide community health education and create smooth and cohesive processes so that patients receive appropriate and timely care and are supported to navigate the health system.

Discussion

This study explored Māori experiences of rehabilitation in a hand therapy context and identified Māori solutions for culturally safe practice. The five themes describe the journey Māori patients take when engaging with hand therapy. Our findings show that the initial connection with clinic staff was integral and impacted on Māori participants' hīkoi [journey] through rehabilitation. Hand therapy was found to have unique characteristics that facilitated positive health encounters. The relationship with the hand therapist was a consistent driver for positive experiences and was viewed as a foundation from which hand therapists could incorporate Māori solutions for culturally safe practice.

Participants' reflections on past negative health experiences provided important context for understanding what made hand therapy feel different, and for many, safer. These reflections align with our scoping review, which found that expectations of culturally unsafe care are shaped by previous experiences within the health system. Building on these findings, participant narratives from this study also revealed how experiences of care accumulated over time for both participants and their whānau [family], with each health encounter shaping how they approached the next. Many entered hand therapy following recent encounters with services such as emergency departments, inpatient wards, outpatient clinics, or primary care, making the contrast more immediate.

These contrasts helped clarify the aspects of hand therapy that supported cultural safety. Although time pressures vary across contexts, participants emphasised that culturally safe care does not depend on having more time, but on how that time is used. Relationship building, an unhurried pace, clear communication, and respectful interactions were key features that made care feel safe. Participants described how these qualities were expressed through small acts of connection, such as greeting patients and whānau, introducing oneself, and showing genuine respect, which made care feel more personal and grounded in relationship. Collectively, these findings demonstrate that cultural safety relies more on intention than duration, offering clinicians clear opportunities to foster culturally safe rehabilitation journeys.

A novel finding from this study was the treasured nature of the therapeutic relationship itself. Often Māori interactions with health professionals are described as negative and ineffective [28], whereas our study highlighted a different relationship based on connection and trust. Despite assumptions that including cultural practices, such as whakawhanaungatanga [building connections], is challenging within the constraints of clinical environments, our findings demonstrate that effective interactions are not only possible within current practice models but highly valued.

Embedding culturally determined Indigenous social norms in practice allows genuine opportunities for connection to occur. The Hui Process, for example, offers a framework for structuring clinical

encounters in ways that are familiar to Māori and has been shown to increase clinician confidence in navigating such encounters. The Hui Process follows the four stages of a hui [meeting]: mihimihi [greeting], whakawhanaungatanga [connection], kaupapa [clinical purpose], and poroaki [closing] (Pitama et al. 2017) [29, 30,31]. While Māori experiences are grounded in distinct cultural, historical and political realities, parallels exist with international Indigenous perspectives. For example, yarning with Aboriginal and Torres Strait Islanders in Australia, an approach that similarly centres connection, has been shown to positively impact health interactions [32,33].

The study findings challenge wider social narratives in Aotearoa that position private healthcare as faster, more personalised, and higher-quality care [34]. While most participants were recruited from private hand therapy clinics, one who received hand therapy through a publicly funded service also reported a positive experience. Notably, participants who did not enjoy their hand therapy were also seen in private clinics. The predominance of private clinics in Auckland, where recruitment took place, likely reflects ease of access and availability rather than participant preference. These findings suggest that the perceived quality of hand therapy was not determined by funding model or clinic setting, but by the therapist's relational and cultural responsiveness. These observations reinforce that cultural safety depends less on structural setting and more on the relational quality of care.

The bar appears to be low for what Māori expect to experience in rehabilitation settings. In our study, participants described feeling respected, listened to, and receiving understandable explanations as outstanding treatment, yet these are basic standards of care. This finding is unsurprising given that both our scoping review and this study found that health professionals continue to display discriminatory and racist behaviours towards Māori [11]. Such experiences can be understood as the result of both conscious and unconscious racial bias, where overt prejudice and unexamined assumptions interact to influence clinician behaviour and decision-making [35]. Translating cultural safety into practice requires clinicians to critically examine how personal and institutional biases shape interactions and outcomes, and to engage in reflexivity that determines whether their practice reproduces or resists colonial worldviews [9,36]. Participants in this study recognised these dynamics in the āhua [presence] of their therapists, experiencing cultural safety when clinicians demonstrated humility, cultural self-awareness, and openness to learning. Naming and addressing these dynamics are essential for fostering clinician accountability and for making positive rehabilitation experiences the norm for Māori [37].

Small efforts were found to make a big difference for participants when cultural connections were incorporated in hand therapy, particularly when the hand therapist laid the foundations of a close therapeutic relationship. Often clinicians are unsure about the best place to start for implementing cultural considerations with Māori and some fear causing offence by getting things wrong [38,39]. However, participants in this study challenged this concern, expressing appreciation for genuine attempts by non-Māori hand therapists to learn, try, and engage respectfully. These small but meaningful efforts at cultural connection reflect broader principles found across Indigenous health frameworks and align with international recommendations for culturally safe practice.

Respectful curiosity, flexibility, and demonstrating awareness of one's own culture are recommended foundations for clinicians seeking to work in culturally safe ways with Indigenous people [3,32]. Two-eyed seeing, an approach promoted in Canada, provides a relevant example that reflects participants' emphasis on clinicians understanding both their own cultural positioning and that of the patient. The Two-Eyed Seeing concept encourages valuing both ways of knowing—seeing with one eye the strengths of Indigenous knowledge and with the other eye the strengths of colonial knowledge—to inform more balanced, culturally responsive practice [40]. In our study, participants expressed that when hand therapists demonstrated awareness of their own culture and history, it enhanced connection and trust, aligning with the relational intent behind Two-Eyed Seeing. In practice, this can be seen in how participants from this study offered practical starting points for culturally responsive engagement. These starting points included using te reo Māori [Māori language] and incorporating tikanga [practices] into appointments, such as offering karakia [prayer] or pepeha [introduction of self]. These culturally grounded actions were seen by participants as meaningful steps towards building trust, fostering connection, and creating safer rehabilitation spaces for Māori.

Holistic and occupation-focused approaches were explicitly named by participants as increasing engagement with hand therapy. Participants from our study emphasised the importance of being recognised during hand therapy as a whole person with more than just a hand injury. Participants gave high praise to hand therapists who took time to understand the impact of an injury on their daily activities, whānau and community roles, wairua [spirit, vibe], emotional and cultural wellbeing. These approaches align with Māori health models, such as Te Whare Tapa Whā (Durie, 1985)[41] and the Meihana model [42]. Integrating these models can help to validate emotional, cultural and spiritual dimensions of health and allow space for Māori to express these parts of themselves in rehabilitation settings. Additionally, holistic approaches in hand therapy could extend beyond the clinical interaction to create a place of haumarū—a shelter from the winds. Embedding manaakitanga [kindness, hospitality, care], welcoming whānau, softening clinical spaces, and helping to navigate barriers such as cost, transport, or system complexity are actions that could be taken to reflect te ao Māori [Māori worldview], in both practice and service design.

Tailored rehabilitation interventions that supported return to meaningful occupations were highly valued by participants. In rehabilitation, occupation refers to any daily life activity that can occupy a person [43]. Notably, participants did not discuss the clinical background (occupational therapist or physiotherapist) of their hand therapist during interviews, indicating that these approaches are largely embraced across the profession. The ultimate goal of hand therapy has always been for patients to resume occupations of importance, however understandings of the value of occupation as a treatment modality in hand therapy are emerging. Recent studies have elucidated the advantages of occupation as a therapeutic tool, which include greater agency in the rehabilitation journey, capitalising on familiar movements rather than rote exercises, distraction from anxiety and pain, and the substantial potential of occupations to facilitate movement in stiff joints [44,45]. While such models align closely with occupational therapy philosophies, raising awareness of occupation-focused care for all hand therapists, regardless of clinical background, may further enhance culturally safe and meaningful practice with Māori.

Rehabilitation clinicians working with Māori are not only challenged to recognise the therapeutic benefits of occupation, but also the significant impact of engaging in culturally relevant occupations that support connection, identity, and quality of life during recovery [46]. Although only one participant from our study described such an activity during therapy—using poi [a traditional Māori dance and performance ball on a cord] for wrist mobility, the literature highlights an opportunity to incorporate culturally meaningful activities more intentionally. Examples of culturally relevant occupations that could be integrated into rehabilitation for Māori include caring for the natural environment, carving, weaving, hosting whānau, and group-based interventions [47,48]. Similar findings have been reported internationally. For example, in their study exploring the experiences of Aboriginal and Torres Strait Islander people, Sarovich et al. [33] found engaging in culturally relevant activities supported cultural identity, created a sense of achievement and fun, and connected patients with rehabilitation. These findings expand on earlier arguments that the concept of occupation can act as either a colonising or decolonising force within rehabilitation depending on how it is understood and applied. Framed through this lens, occupation becomes not only therapeutic, but a means for cultural affirmation and healing [9].

Limitations and future research

Our study included only participants from Auckland, so perspectives from Māori living in other regions, particularly rural or underserved areas, may differ from those in a large urban centre. Another limitation is that we included the first 15 participants to volunteer, which may have excluded people with limited access or less positive encounters. The interviewer was Pākehā, and although culturally appropriate research practices were adopted, it is possible that a Māori researcher may have elicited different perspectives or experiences from participants.

Future research using purposive sampling across a broader range of geographical areas would be valuable. Exploring clinician perspectives and organisational enablers could also provide a more comprehensive understanding of cultural responsiveness. Further research guided by te ao Māori could help

identify meaningful ways to embed Indigenous Māori approaches within rehabilitation contexts. Ongoing work is needed to understand how whānau-centred, holistic care can be strengthened within culturally grounded service design.

Conclusion

This study outlines a pathway that clinicians can follow to help make positive rehabilitation experiences the norm for Māori. While system-level change is essential, the important role that individual clinicians play in contributing to positive rehabilitation experiences of Indigenous people should not be underestimated [32]. Participants emphasised that by consistently providing quality care, thoughtfully incorporating te ao Māori, and genuinely embracing holistic and occupation-focused approaches, clinicians can create conditions for culturally safe rehabilitation.

The findings of this study point a way forward for rehabilitation and hand therapy clinicians alike. Clinicians should feel encouraged to act and recognise their place in embedding Indigenous solutions and establishing culturally safe practice as the standard. As one participant reflected, capturing the essence of these findings:

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

(Sophie)

Acknowledgements

We acknowledge and thank the hand therapy clinics who assisted with recruitment and the Māori participants who generously shared their stories and insights.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This research was undertaken as part of the first author's Master of Health Science thesis at Auckland University of Technology. The study was supported by Hand Therapy New Zealand, Hands on Rehabilitation Ltd., and Health New Zealand | Te Whatu Ora Counties Manukau. Also supported by Counties Manukau Health.

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References

- [1] Bauer HF, Neal EC, Lizon ME, et al. Indigenous peoples and occupational therapy in Canada: a scoping review. *Can J Occup Ther.* 2022;89(3):249–260. doi: [10.1177/00084174221088410](https://doi.org/10.1177/00084174221088410).
- [2] Jacek CC, Fritz KM, Lizon ME, et al. Knowledge gaps regarding Indigenous health in occupational therapy: a national survey. *Can J Occup Ther.* 2024;91(1):65–77. doi: [10.1177/00084174231197622](https://doi.org/10.1177/00084174231197622).
- [3] Wepa D, editor. *Cultural safety in Aotearoa New Zealand*. 2nd ed. Cambridge University Press, Cambridge, UK; 2015.
- [4] Australian Health Practitioner Regulation Agency. The national scheme's Aboriginal And Torres Strait Islander health and cultural safety strategy 2020–2025. 2020. Available from: <https://www.ahpra.gov.au/About-Ahpra/Aboriginal-and-Torres-Strait-Islander-Health-Strategy/health-and-cultural-safety-strategy.aspx#>.

- [5] Canadian Association of Occupational Therapists. Occupational therapy statement of commitment to Indigenous Peoples in Canada. 2023. Available from: <https://caot.ca/document/8065/TRC%20Commitment%20statement%20Sept%2028%20EN.pdf>.
- [6] New Zealand Speech-language Therapists' Association. 2020–2025 strategic plan. 2020. Available from: https://speechtherapy.org.nz/assets/Uploads/NZSTA_Strategic-Plan_2020-2025.pdf.
- [7] Emery-Whittington IG. Occupational justice—colonial business as usual? Indigenous observations from Aotearoa New Zealand. *Can J Occup Ther.* 2021;88(2):153–162. doi: [10.1177/00084174211005891](https://doi.org/10.1177/00084174211005891).
- [8] White T, Beagan BL. Occupational therapy roles in an Indigenous context: an integrative review. *Can J Occup Ther.* 2020;87(3):200–210. doi: [10.1177/0008417420924933](https://doi.org/10.1177/0008417420924933).
- [9] Favel K, Pride T. Embracing moss bag nurturance: a step towards decolonizing occupational therapy and research. *Can J Occup Ther.* 2025;84174251362357. doi: [10.1177/00084174251362357](https://doi.org/10.1177/00084174251362357).
- [10] Meechan E, Geia L, Taylor M, et al. Culturally responsive occupational therapy practice with first nations peoples—a scoping review. *Aust J Rural Health.* 2024;32(4):617–671. doi: [10.1111/ajr.13143](https://doi.org/10.1111/ajr.13143).
- [11] Sheehy B, Wepa D, Collis J. Māori experiences of physical rehabilitation in Aotearoa New Zealand: a scoping review. *Disabil Rehabil.* 2024b;47(6):1342–1352. doi: [10.1080/09638288.2024.2374494](https://doi.org/10.1080/09638288.2024.2374494).
- [12] American Society for Surgery of the Hand. Hand therapy. 2024. Available from: <https://www.assh.org/handcare/condition/hand-therapy>.
- [13] Thorne S. Interpretive description: qualitative research for applied practice. 2nd ed. Taylor & Francis Group, Routledge, New York, USA; 2016.
- [14] Network Waitangi. Treaty of waitangi questions and answers. 7th ed. Network Waitangi Otautahi, Otautahi, New Zealand; 2018. <https://nwo.org.nz/wp-content/uploads/2018/06/QandA.pdf>
- [15] Sheehy B, Collis J, Wepa D. Te Tiriti informed approach: a korowai of cultural safety for research. *N Z J Occup Ther.* 2024;71(1):33–39.
- [16] Te Whata. Tāngata. Demographics. 2024. Available from: <https://tewhata.io/all-maori/social/people/demographics/#population>.
- [17] Hand Therapy New Zealand. 2024. Welcome to hand therapy New Zealand. Available from: <https://handtherapy.org.nz/>.
- [18] Financial Services Council. 2024. Insights & trends: affordable and accessible healthcare. Financial Services Council of New Zealand. Available from: <https://7422267.fs1.hubspotusercontent-na1.net/hubfs/7422267/FSC%20Corporate/Documents/Research%20Reports/FSC%20Insights%20%26%20Trends%20-%20Healthcare%20FINAL.pdf>.
- [19] Timmins J, Kayes N, O'Brien D. Valuing professional and cultural diversity in support of hand therapists in Aotearoa New Zealand: an interpretive description study. *NZJP.* 2023;51(1):24–32. doi: [10.15619/NZJP/51.1.04](https://doi.org/10.15619/NZJP/51.1.04).
- [20] McClintock K, Mellsop G, Moeke-Maxwell T, et al. Pōwhiri process in mental health research. *Int J Soc Psychiatry.* 2012;58(1):96–97. doi: [10.1177/0020764010387067](https://doi.org/10.1177/0020764010387067).
- [21] Patterson EW, Ball K, Corkish J, et al. Enhancement of rigour in qualitative approaches to inquiry: a systematic review of evidence. *QRJ.* 2023;23(2):164–180. doi: [10.1108/QRJ-06-2022-0086](https://doi.org/10.1108/QRJ-06-2022-0086).
- [22] Terry G, Hayfield N. Essentials of thematic analysis. American Psychological Association, Washington DC, USA; 2021.
- [23] Thompson Burdine J, Thorne S, Sandhu G. Interpretive description: A flexible qualitative methodology for medical education research. *Med Educ.* 2021;55(3):336–343. doi: [10.1111/medu.14380](https://doi.org/10.1111/medu.14380) 32967042
- [24] Braun V, Clarke C. Thematic analysis. A practical guide. SAGE, London, UK; 2022.
- [25] Shelton SA, Flint MA. Dichotomies of method and practice: a review of literature on transcription. *QRJ.* 2021;21(2):177–188. doi: [10.1108/QRJ-05-2020-0046](https://doi.org/10.1108/QRJ-05-2020-0046).
- [26] Brougham AE, Reed AW. The raupō book of Māori proverbs. Penguin Books, Auckland, New Zealand; 2012.
- [27] Mead H. Tikanga Māori (Revised Edition): Living by Māori values. Huia Publishers, Wellington, New Zealand; 2016. <http://ebookcentral.proquest.com/lib/aut/detail.action?docID=4783665>
- [28] Komene E, Pene B, Gerard D, et al. Whakawhanaungatanga—building trust and connections: a qualitative study of Indigenous Māori patients and whānau (extended family network) hospital experiences. *J Adv Nurs.* 2024;80(4):1545–1558. doi: [10.1111/jan.15912](https://doi.org/10.1111/jan.15912).
- [29] Pitama SG, Bennett ST, Waitoki W, et al. 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.* 2017;46(3):7–19.
- [30] Lacey C, Huria T, Beckert L, et al. The Hui process: a framework to enhance the doctor-patient relationship with Māori. *N Z Med J.* 2011;124(1347):72–78.
- [31] Pitama S, Huria T, Lacey C. Improving Māori health through clinical assessment: Waikare o te waka o meihana. *N Z Med J.* 2014;127(1393):107–119.
- [32] Lin I, Coffin J, Bullen J, et al. Opportunities and challenges for physical rehabilitation with Indigenous populations. *Pain Rep.* 2020;5(5):e838. doi: [10.1097/PR9.0000000000000838](https://doi.org/10.1097/PR9.0000000000000838).
- [33] Sarovich E, Lowrie D, Geia L, et al. Different meanings...what we want in our lives...A qualitative exploration of the experience of Aboriginal and Torres Strait Islander peoples in a co-designed community rehabilitation service. *Disabil Rehabil.* 2024;46(2):354–361. doi: [10.1080/09638288.2022.2161645](https://doi.org/10.1080/09638288.2022.2161645).

- [34] Brown P, Panattoni L, Cameron L, et al. Hospital sector choice and support for public hospital care in New Zealand. *J Health Econ.* 2015;43:118–127. doi: [10.1016/j.jhealeco.2015.06.007](https://doi.org/10.1016/j.jhealeco.2015.06.007).
- [35] Curtis E, Jones R, Tipene-Leach D, et al. Why cultural safety rather than cultural competency is required to achieve health equity: a literature review and recommended definition. *Int J Equity Health.* 2019;18(1):174. doi: [10.1186/s12939-019-1082-3](https://doi.org/10.1186/s12939-019-1082-3).
- [36] Wilson L, Wilkinson A, Tikao K. Health professional perspectives on translation of cultural safety concepts into practice: A scoping study. *Front Rehabil Sci.* 2022;3:891571. doi: [10.3389/fresc.2022.891571](https://doi.org/10.3389/fresc.2022.891571).
- [37] Came H, Griffith D. Tackling racism as a “wicked” public health problem: enabling allies in anti-racism praxis. *Soc Sci Med.* 2018;199:181–188. doi: [10.1016/j.socscimed.2017.03.028](https://doi.org/10.1016/j.socscimed.2017.03.028).
- [38] Crawford HS. A Pākehā journey towards bicultural practice through guilt, shame, identity and hope. *ANZSWJ.* 2016;28(4):80–88. doi: [10.11157/anzswj-vol28iss4id300](https://doi.org/10.11157/anzswj-vol28iss4id300).
- [39] Hotere-Barnes A. Generating ‘non-stupid optimism’: addressing Pākehā paralysis in Māori educational research. *N Z J Educ Stud.* 2015;50(1):39–53. doi: [10.1007/s40841-015-0007-y](https://doi.org/10.1007/s40841-015-0007-y).
- [40] Reichert M, Sawatsky R, Favel R, et al. Indigenous community-directed needs assessment for rehabilitation therapy services. *Int J Circumpolar Health.* 2023;82(1):2183586. doi: [10.1080/22423982.2023.2183586](https://doi.org/10.1080/22423982.2023.2183586).
- [41] Durie MH. A Maori perspective of health. *Soc Sci Med.* 1985;20(5):483–486. doi: [10.1016/0277-9536\(85\)90363-6](https://doi.org/10.1016/0277-9536(85)90363-6) 3992288
- [42] Pitama S, Robertson P, Cram F, et al. Meihana model: a clinical assessment framework. *N Z J Psychol.* 2007;36(3):118–125.
- [43] World Federation of Occupational Therapists. About occupational therapy. 2025. Available from: <https://wfot.org/about/about-occupational-therapy>.
- [44] Collis JM, Mayland EC, Kayes N, et al. Early daily activity: development and description of an occupation-based intervention for surgically repaired distal radius fractures. *Clin Rehabil.* 2024;38(9):1158–1170. doi: [10.1177/02692155241258296](https://doi.org/10.1177/02692155241258296).
- [45] Weinstock-Zlotnick G, Mehta SP. A systematic review of the benefits of occupation-based intervention for patients with upper extremity musculoskeletal disorders. *J Hand Ther.* 2019;32(2):141–152. doi: [10.1016/j.jht.2018.04.001](https://doi.org/10.1016/j.jht.2018.04.001).
- [46] Wright-St Clair VA, Rapson A, Kepa M, et al. Ethnic and gender differences in preferred activities among Māori and non-Māori of advanced age in New Zealand. *J Cross Cult Gerontol.* 2017;32(4):433–446. doi: [10.1007/s10823-017-9324-6](https://doi.org/10.1007/s10823-017-9324-6).
- [47] Hollands T, Sutton D, Wright-St. Clair V, et al. Māori mental health consumers’ sensory experience of kapa haka and its utility to occupational therapy practice. *N Z J Occup Ther.* 2015;62(1):3–11.
- [48] Schlötjes ER, Smith MM. Open doors: sensory rongo for Māori. *N Z J Occup Ther.* 2022;69(1):10–16.