

# *He aha te mea nui o te ao? He tāngata!*<sup>†</sup> (What is the most important thing in the world? It is people!)

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**Abstract.** This paper highlights the importance of people as a central factor in improving health for Māori (Indigenous people of New Zealand). How whānau (family) relationships, connections, values and inspiration are integral to achieving Indigenous health goals is explained. Descriptions of how community researchers, healthcare staff, consumers and academics worked together to design interventions for two health services (in the Waikato and Bay of Plenty regions) is included. Through highlighting the experiences of health consumers, the potential for future interventions to reduce the advancement of pre-diabetes among whānau is described. Evidence from the study interviews reinforces the importance of whānau and whakapapa (heritage) as enabling factors for Indigenous people to improve health. Specifically, the positive effect of whānau enhancing activities that support peoples' aspirations of tino rangatiratanga (self-determination) in their lives when engaging with health care has been observed. This study highlights the many positives that have emerged, and offers an opportunity for taking primary health to the next level by placing whānau alongside Indigenous primary care providers at the centre of change strategies.

**Additional keywords:** chronic disease prevention, community membership, Indigenous health services, primary health services.

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## Introduction

Reported failures of the health system to address Māori (the Indigenous people of Aotearoa/New Zealand) health needs have been ongoing in Aotearoa (Harris *et al.* 2006). Successive governments have failed to take the necessary steps to meet Māori health needs, and a range of health indices that show little, no or slow improvement (Reid and Robson 2007; Harris *et al.* 2012). Health inequities between Māori and non-Māori are consistent over the lifecourse and over time, and are the most consistent and compelling in Aotearoa (Ajwani *et al.* 2003; Cram *et al.* 2003; Hodgetts *et al.* 2004; Reid *et al.* 2014; Ministry of Health 2016). Focusing on diabetes, nearly half (47 per cent) of Māori are classified as obese (BMI >30) compared with 29 per cent of Pākehā (New Zealanders of European descent) (Ministry of Health 2015a). Diabetes rates for Māori sit at 7.2 per cent compared with 5.1 per cent of New Zealand European (Ministry of Health 2015a). Similar inequities are found in other Indigenous communities (Gibson *et al.* 2015; Chin *et al.* 2018).

While racism and colonisation are cited as key contributors to health inequities (Harris *et al.* 2012; Pihama *et al.* 2014), the unjust distribution of resources also contributes to health inequities (Ajwani *et al.* 2003; Braveman 2006; World Health Organization 2011; Paradies *et al.* 2015). This injustice is underpinned by the New Zealand (NZ) Government not meeting its obligations under Te Tiriti o Waitangi (te reo Māori text of The Treaty of Waitangi) and is currently being examined as part of the Health Services and Outcomes Inquiry, WAI 2575 (Waitangi Tribunal 2019).

A range of interventions has shown to improve health outcomes for chronic diseases (Michener *et al.* 2012). Despite improvement, there has been underwhelming progress in terms of reducing health inequities. Achieving healthier lives for Māori communities needs to shift beyond an exploration of intervention efficacy to focus on the extent to which implementation is effective in a specific setting, sustainable and promotes dissemination into other settings (Damschroder *et al.* 2009). 'He

<sup>†</sup>The title is a proverbial saying in te reo Māori that has been translated into English. A glossary of Māori terms has been provided in Appendix 1 at the end of this article.

### What is known about this topic?

- Colonisation and racism are major contributors to health inequities. Partnering health services with communities has been identified as key to supporting the development of culturally appropriate, high-quality health services.

### What does this paper add?

- Successful Indigenous co-designed diabetes interventions requires partnering with Indigenous primary care services. Relationships that motivate change and are supported by positive engagements with primary care services positively affect Māori health.

Pikinga Waiora: Making health interventions work for Māori communities' (HPW) is a core project within the Healthier Lives Challenge; one of 12 Challenges of the NZ Government's science investment program. HPW aims to address health inequities by exploring the role of community partnerships and mātauranga Māori (Māori knowledge) in the development of sustainable and effective evidence-based interventions for slowing the progress of pre-diabetes to diabetes among Māori. Activate collaborations between Indigenous researchers, community partners and services providers is a key pathway to support the development of culturally appropriate, high-quality health services for under-served populations (Simmons and Voyle 2003; Korn and Ryser 2006; Dutta 2007; Wallerstein *et al.* 2008; Walters *et al.* 2011; Michener *et al.* 2012; Stellefson *et al.* 2013; Cyril *et al.* 2015). HPW comprises a collaboration of academic researchers, public health physicians and systems analysts who aim to reduce health inequities through a better understanding of the science of implementation (Oetzel *et al.* 2017). In this paper, we describe our work alongside two Māori community health providers: Te Kōhao Health<sup>1</sup> in the Waikato region and Poutiri Charitable Trust<sup>2</sup> in the Bay of Plenty region.

## Methods

This research embraced a Māori-centred approach (Pihama 2010), which seeks to understand phenomena from a Māori worldview (Smith 2012) in a way that empowers research participants and Māori communities (Durie 1997; Cunningham 2000; Putaiora Writing Group 2011). Through using collective, participatory and empowering processes, the concerns, interests and preferences of participants were used to guide our research

process (Ruwhiu 1999; Pihama *et al.* 2002; Ormond *et al.* 2006; Kerr *et al.* 2010; Kidd *et al.* 2013).

We reinforced the process of researchers working alongside participants and the communities from which the participants belong to ensure positive outcomes (Durie 1997). The interviews were conducted by two Māori Community Researchers who were trained to conduct interviews with whānau Māori (Māori families) in ways that aligned with Māori cultural values and practices (Masters-Awatere *et al.* 2017). The Community Researchers are based within the Māori health organisations, which meant that they could provide a deep insight on the organisation (Hodgetts *et al.* 2014; Masters-Awatere 2017). Practical aspects such as recruitment, interview procedures and analysis were managed with mana Māori (control and autonomy) in mind to maintain the notion of participants' knowledge as a gift that must be treated with respect and care (Putaiora Writing Group 2011).

### Process followed

Semi-structured interviews allowed for an in-depth exploration of participants' narrative (Bold 2012; Lyons 2015) about being diagnosed with diabetes or pre-diabetes. Prompts to guide the conversation were focussed on participants' thoughts about four key themes: (i) initial response to being diagnosed with diabetes/pre-diabetes; (ii) their knowledge before and after diagnosis; (iii) their experiences of support services; and (iv) ideas for reducing rates of diabetes among Māori.

### Recruitment and participants

Participants were recruited from the two Māori community-based primary healthcare providers, using a purposive convenience sampling framework. Specifically, we chose patients who identified as Māori and had been diagnosed with diabetes or pre-diabetes. The Community Researchers contacted nurses at the two providers to identify patients who would be willing to share details about their experience. The recruitment process included the intention to saturate the pool of ideas by seeking interviews from people with different characteristics (e.g. if we had women, we sought men; if we had older, we sought younger; if we had diabetes, we sought pre-diabetes).

We interviewed 10 people from each community ( $n = 20$ ). Nearly all had been diagnosed through an 'opportunistic' test when being seen for another health issue. The majority had progressed from pre-diabetes to type 2 diabetes, and had other chronic conditions including: heart disease, cancer, asthma, gout, arthritis, foot cellulitis, hernia, mental health issues, obesity, stroke, high blood pressure, sleep apnoea and gestational

<sup>1</sup>Concerned for the health and welfare of whānau within their community, the Kirikiriroa Marae Trustees established the Te Kōhao Health Whānau Ora Centre in 1994; a Māori health provider based in Kirikiriroa/Hamilton, Waikato. Beginning with a small medical service, Te Kōhao has since expanded to offer a range of affordable services in the areas of health, social, education and finance to over 9000 registered members. Te Kōhao provides general practice services through its main clinic, Te Miro o te Ora, and satellite clinics servicing the wider Hamilton and Raglan communities. Te Kōhao Health is also a Whānau Ora provider and a leading member of the Waikato-Hauraki rohe-based collective, Te Ngira Whānau Ora.

<sup>2</sup>Poutiri Charitable Trust was established in 1997 by Te Whānau Poutiri Rangiora a Papa, a multi-iwi (tribal) collective formed in the late 1980s to improve Māori health in the Bay of Plenty. Based in Te Puke, Poutiri Trust's vision is: 'Ko whānau ora te putake o te hauora Māori', which translates whānau wellbeing being the foundation of Māori health. Poutiri Trust works to ensure all whānau, hapū and iwi of the four waka of the rohe (Te Arawa, Mataatua, Takitimu and Tainui) achieve whānau ora. Through its mission, Poutiri seeks to build a strong, sustainable 'whare o Poutiri' to deliver sustainable health services throughout the Bay of Plenty in partnership with the hauora provider network. Poutiri Trust and its provider network deliver 18 community health services that are appropriate, accessible and affordable to 14 communities throughout the Bay of Plenty.

diabetes. All participants identified as Māori and their ages ranged from 37 to 84 years, with an equal balance of males and females. All participants have been given pseudonyms to protect their, and the wider whānau, anonymity.

### Interviews

All 20 interviews were completed within 5 months and varied in time; none were longer than 60 min. All were conducted face-to-face (in person) either at the health provider site or at the participant's home. These two venues were the most preferred by participants, and were deemed appropriate as the method demanded recognition and validation of everyday people talking about ordinary experiences (Lekoko 2007). More than half of participants accepted the invitation to have whānau members contribute, or a support worker present.

Food and drink were offered to participants and each interview began with whakawhanaungatanga (relationship building) processes; getting to know each other and establishing connections or commonalities (Bishop *et al.* 2013). Whakawhanaungatanga also helped to ensure a culturally safe setting and to dismantle the power imbalance between researcher and participant (Smith 2012). Once comfortable with each other, the background of the research, ethical processes and the purpose of the interview were explained. The interview proper began once informed consent was obtained from participants. It was at this point that participants were allocated pseudonyms.

### Analysis process

Interviews were transcribed by the Community Researcher interviewers. Two of the three principal investigators (PIs) from the project (BMA and J. Oetzel) then checked the accuracy of the transcriptions. After the first interview by each Community Researcher, two PIs (BMA and NS) reviewed and coded the interviews independently of the Community Researcher. The PIs (BMA and J. Oetzel) provided further advice on interview style and training about probing to get more information on key issues raised. This process of collection, transcription and audit was undertaken for all 20 interviews.

The authorship team agreed that thematic analysis was useful for understanding narrative data (Riessman 2005; Braun *et al.* 2015, p. 96) and required the researcher(s) to identify, analyse and interpret themes within and across the data to illustrate collective meanings and experiences (Bold 2012). We built on that notion through the premise of a Māori research team ensuring that whānau Māori and their experiences held a central position within the research (Durie 1997).

Meetings were held by the analysis team ( $n = 4$ ). Each of the four members read 10 transcripts and then shared the key issues that 'stood out' for them at the first meeting. Each provided an explanation and evidence for why the issues they identified were significant. The team discussed the importance, relevance and priority level of the issue. Members were then given an issue to explore within the 10 transcripts they had been previously allocated. After re-analysing the transcripts, members attended a second meeting where the team debated the strength of the evidence and relevance for each of the issues (Etherington 2004). If there was consistency by at least two team members, the issues were then discussed among the group, and then checked for

relevance to improving Māori health (Ellison-Loschmann and Pearce 2006). Once themes were agreed upon, the team met for a third time to re-examine scripts, discuss evidence for the themes and the situational context of the experiences participants had shared. All involved in the analysis process were Māori (and are named authors of this article). In this paper, we discuss one of the themes that emerged from this process.

### Ethics approval

Ethical approval for this research was granted by the Human Research Ethics Committee at the School of Management Studies at University of Waikato and the Health and Disability Committee at the Ministry of Health, 15/NTA/201.

### Results

Family, children and especially grandchildren (i.e. the whānau) were identified as the core reason participants took control of their wellbeing to manage their health. Whānau were also a key source of support for participants when learning to cope with their health situation. The importance of key people became more obvious when those who had been initially diagnosed with pre-diabetes, and then diabetes, sought to make sense of their situation. Positive engagement with their primary healthcare providers was pinpointed by participants as a key factor in their feeling supported and cared for. Participants talked about the loss of family members, across generations, as a result of chronic illnesses. It was at this point that the whakatauki (proverbial saying) 'he aha te mea nui o te ao?' (what is the most important thing in the world?) became salient. Participants' descriptions of their whakapapa revealed a narrative of chronic illnesses. Such narratives provided participants with a direction and focus towards their future. Here, whānau Māori showed incredible drive. Young or old, participants talked about younger generations as their connection to the future.

### Motivation to manage chronic illnesses

Participants often spoke about their whānau. It was particularly the children and grandchildren who motivated or influenced participants to cope with or manage their chronic illness. The importance of grandchildren is encapsulated in this statement by Tane, who lives with his adult daughter and her partner and baby:

...they [my family] took me to the hospital. Because I wouldn't listen. . . 'Nah, nothing wrong with koro.' When I couldn't walk, 'get in this car' (laughs). So I was up there for a couple of nights until they brought the sugar levels down. But I was so grateful, [I'm] still here to see my mokos [Tane, aged 70 years].

John is a 64-year-old Māori man. He and his wife are raising their 4-year-old grandchild. His grandchild is his greatest motivation, but also his priority for being healthy:

So, having your mokopuna with you does that help you in your direction or decisions? [Researcher].

It restricts us from having things, because if we have it, he [grandchild] will say, 'I want some of this, I want some of that' and I will say to him 'it's not good for you', but he will say, 'but you've got some there nana' you know he is only

4, but he has got a mouth on him. And when other kids come over, he will say 'how come I can't have what they have' . . . I s'pose a lot of things that I do now is because of my mokopuna [John, aged 64 years].

Similar to Tane and John, Hine, who lives in Mount Maunganui with her husband, daughter and granddaughter, talked about the importance of her whānau relationships. Hine was diagnosed with rheumatoid arthritis when she was aged 40 years and developed diabetes as a result of sustained steroid use to manage her condition. Her whānau have helped Hine to improve her fitness:

. . . I reckon my 2-year-old granddaughter keeps me fit and busy yeah you know how you always got to pick them up, lift them, you run after them, that kind of thing. . . She's actually the cause of why I don't. . . find it that hard going up the Mount [Maunganui] now, and Papamoa hills at all really [Hine, aged 56 years].

Tane, John and Hine highlight feelings of love for their children and grandchildren as key inspiration for reminding participants of their whakapapa (genealogy) as enabling factors. Keeping themselves well, and teaching the next generation to be healthy, are embedded within the notion of spending quality time with family.

#### *Whānau support*

Another theme that emerged was the important role of whānau in supporting participants on their journey of health and wellbeing. Our research method provided a culturally safe space for participants to include whānau members into the interviews – directly and indirectly. For example, 84-year-old Ani's daughter and son were present during her interview, and provided further information about when Ani was diagnosed:

Oh my gosh few years ago yeah it was a few years ago yeah long time [Ani].

Oh yes in your 50s, 30 odd years ago mum [Daughter].

I was in Aussie yeah so about 30 odd years ago [Son].

Participants often referred to whānau as people with blood connections; however, Barbara presented a different notion of whānau. Barbara had several issues including hearing impairment and illiteracy. Domestic violence required Barbara and her three young children move to a new town. Barbara had sought to draw support beyond kin relationships. While settling into a new town, Barbara's biggest whānau support, in its broadest sense, was her two eldest children, the local church and the primary healthcare provider:

. . . I don't have to worry about anyone telling me this and that, you know, I'm with the church as well, I've been with [this] church, since I've been here. They have been supporting me, you know giving me the hope and stuff for God, so yes. It's a different change of life again, you know from all the drinking and the hidings and now it's all different for us [Barbara, aged 51 years].

How has [the local Māori primary healthcare provider] helped you? [Interviewer].

Sending your people around, my medications, they drop off my medication to me, they have done a lot of things for me, they have opened up doors for me, like I didn't even know about, helping me with my kids, and now that I know all that, it was all about kids, and now it's all about me [Barbara, aged 51 years].

Barbara explained support from her primary healthcare provider emerged as way of connecting her to social services she was not previously aware of.

#### *Positive engagement with local primary healthcare providers*

Participants living with diabetes described the positive support they received from the two Indigenous primary healthcare providers that were involved in this study. Comments focussed on the inclusive cultural environment that made them feel comfortable, strengthened and genuinely cared for. The following example provided by John conveys his experience of feeling supported to get healthier through the services and facilities available (at their primary healthcare provider):

. . . [staff] always want to make it better, and that's what I see here, it's the whakaaro (thought(s)). You have the doctors, . . . nurses, . . . the services. . . where the kids can go too. All those sorts of things, kapa haka and cultural days, things for our tamariki (children), those are the things we need to be involved in. Not just the one or two things. A classic example is the boys in the carving shed, they are helping over there and. . . it's just too much. The facilities that are available, like the flats. . . The people are always working here, I am encouraged by that, I am encouraged! [John, aged 64 years].

Just like John, Barbara (quoted earlier) and Daniel refer to the feelings of support provided by staff home visits.

. . . the nurse comes to visit me each week at the moment, but like I said, its probably really all new and I think I have only been diagnosed in the last few months so, but just lately I have been able to be coherent with sticking to my appointments, to make sure I'm going for my blood tests and stuff like that [Daniel, aged 41 years].

Participants described an increased understanding of diabetes as a result of engaging with a variety of services at their local provider. They also gained a sense self-responsibility and self-care by taking responsibility to make regular check-up visits, as captured by Daniel:

. . . taking it [the information] in and. . . taking a bit more responsibility for myself. . . [to] even access services or move forward with a service. I need to sort myself out first, and make sure that I am consistent with whatever comes my way. . . What I should be doing is. . . regular check-ups. . . It's about making sure that you need to do what you need to do in terms of, listening to the professionals, around what you need to do in your life. . . [Daniel, aged 41 years].



The associated health and social support services at both Poutiri and Te Kōhao has increased whānau access to a range of primary healthcare services. Participants were supported to access services that extended the positive feelings of an engaged relationship that resulted in better outcomes. Below is an example from Lilian:

We have access to the mirimiri (massage). The podiatrist. . . [was] helpful to me in regards to I didn't know I was wearing the wrong shoes. When she told me that she would write me a letter but I would need to go into the shop I said 'yeah I can go into the second hand shop, and the other place the warehouse, and she said 'no no you got to go to the proper shop' and I said 'I ain't got the money. It cost money. I ain't gonna go where I can't afford.' She said WINZ (Work and Income New Zealand) will help me out. . . Rauawaawa (healthcare service for elderly Māori). . . have helped me. The whānau ora has motivated me. They've kept the motivation there. . . I'm able to achieve some impossible blinkin' goals, but I was able to do it [Lilian, aged 62 years].

Participants also positively reflected on the clinical support they received following diagnosis. Participants most often acknowledged the assistance from diabetes nurses and support worker staff:

Regular visits by the nurses. . . and them asking the right questions. . . [The nurse] likes to look at my blister pack whenever she comes. . . I find that really helpful 'cause then I know that I got to really keep up with my pills. . . If someone is looking over my shoulder I'll make the extra effort to ensure that, I'm following instructions [Tipene, aged 62 years].

Participants have highlighted 'he tāngata' (the people) aspects as having a positive influence on their wellbeing journey. Each participant said that the people in their lives (whānau, church or primary healthcare service provider) were key to motivating and supporting their health journey. The findings draw out many examples of the central importance of whānau in the lives of Māori.

## Discussion

Our intention was to understand experiences of being diagnosed with pre-diabetes and diabetes for Māori. The narratives highlight the relevance of people as having a positive influence on health. Three interconnected 'people' aspects are considered as key social contributors to improving health: whānau (as relationship), rangatiratanga (authority) and manaakitanga (connection).

First, whānau were identified as key motivators for participants to make positive health changes. The notion of whānau has been considered as people connected through genealogical ties. While that was prominent within these results, there was also an example of whānau that extended beyond blood to others; such as Barbara who chose to connect through her local church. Furthermore, participants regarded the Indigenous primary healthcare provider staff as whānau, regularly welcoming staff into their homes. Situated here was the belief that healing (from diabetes) did not occur in isolation from the

environment or people surrounding the person with diabetes or pre-diabetes. All of the examples of whānau connection are consistent with the observations made by Durie (1997, 2001), where recognition of support networks affirmed the notion of collective wellbeing. The role of these Indigenous primary healthcare providers has been clearly articulated by these whānau and can be an inspiration to future service provision within Indigenous communities.

Second, positive and quality engagement with services and staff provided patients with a sense of autonomy and commitment towards better health outcomes; for example, Daniel's positive interactions with his health provider were a new experience when getting regular check-ups. Within these narratives, the role of whānau as supporters was prevalent within the notion of rangatiratanga (having authority) over health. Māori are over-represented in poor health statistics (Ministry of Health 2015b). A wide body of literature suggests that racism and colonisation are key factors driving ongoing health inequities experienced by Māori (Harris *et al.* 2012), which includes the unjust distribution of resources to Māori health services (Waitangi Tribunal 2019). For these whānau, the notion of rangatiratanga over both their life and the support of providers while working together was integral to overcoming health challenges.

Finally, the findings highlight how important manaakitanga (making connections) are for Māori. Participants were willing to tell stories that gave insight into who they are as a person, and shared how being treated as a whole person, and as part of a wider collective, helped maintain their engagement with support services. Relationships forged between two Māori primary care service providers and their client whānau were notably recognised for their ability to maintain connection for those who had been diagnosed with diabetes or pre-diabetes. Participants shared how relational engagements were highly important in maintaining their future-oriented focus, which when combined with the right Indigenous healthcare provider, supports contributions to change. Access to additional health services (such as clinical nurses, a podiatrist, mirimiri (massage)), as well as other support agencies (such as Lilian's interactions with Rauawaawa and Work and Income New Zealand) served to give participants a sense of connection to multiple health services.

## Conclusion

This paper provides ample evidence of the positive effects two Indigenous primary healthcare providers delivered to Māori through supportive engagements. Positive relationships between nurses, patients and their whānau members facilitated access to wider social and health services that would not have otherwise been accessed. The time taken by staff to explain patient health needs and to advocate to other government agencies for funding to monitor wellbeing, served to make participants feel that someone cared.

Undertaken via a Māori-centred approach, this paper has uncovered insights to facilitating health opportunities that will improve approaches to health. If colonisation and racism are contributors to health inequities, this paper has provided evidence of at least one example that has been successful towards reducing inequity. Here, we demonstrate ways Indigenous

primary healthcare providers positively affected the lives of Māori patients with diabetes and pre-diabetes. The experiences provide an example of the potential for primary healthcare service provision to have a meaningful effect on health outcomes for Māori.

### Conflicts of interest

All authors for this submission are Indigenous people from Aotearoa New Zealand who have been involved in the design and delivery of the project in either of the two sites. The authors declare no conflicts of interest.

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### References

- Ajwani S, Blakely T, Robson B, Tobias M, Bonne M (2003) 'Decades of Disparity: Ethnic Mortality Trends in New Zealand 1980–1999.' (Ministry of Health: Wellington, New Zealand)
- Bishop R, Ladwig J, Berryman M (2013) The centrality of relationships for pedagogy: the Whanaungatanga thesis. *American Educational Research Journal* **51**, 184–214.
- Bold C (2012) 'Using Narrative in Research.' (Sage Publications: London, UK)
- Braun V, Clarke V, Terry G (2015) Thematic analysis. In 'Qualitative Research in Clinical and Health Psychology'. (Eds P Rohlder, A Lyons) pp. 95–113. (Palgrave Macmillan: Hampshire, UK)
- Braveman P (2006) Health disparities and health equity: concepts and measurement. *Annual Review of Public Health* **27**, 167–194. doi:10.1146/annurev.publhealth.27.021405.102103
- Chin MH, King PT, Jones RG, Jones B, Ameratunga SN, Muramatsu N, Derrett S (2018) Lessons for achieving health equity comparing Aotearoa/New Zealand and the United States. *Health Policy (Amsterdam, Netherlands)* **122**, 837–853. doi:10.1016/j.healthpol.2018.05.001
- Cram F, Smith L, Johnstone W (2003) Mapping the themes of Māori talk about health. *The New Zealand Medical Journal* **116**, 1p following U353.
- Cunningham C (2000) A framework for addressing Māori knowledge in research science and technology. *Pacific Health Dialog* **7**(1), 62–69.
- Cyril S, Smith B, Possamai-Inesedy A, Renzaho A (2015) Exploring the role of community engagement in improving the health of disadvantaged populations: a systematic review. *Global Health Action* **8**, 29842. doi:10.3402/gha.v8.29842
- Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC (2009) Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implementation Science; IS* **4**, 50. doi:10.1186/1748-5908-4-50
- Durie M (1997) Identity, access and Māori advancement. In 'New Directions in Educational Leadership: The Indigenous Future. Proceedings of the New Zealand Educational Administration Society Research Conference'. (Eds NT Curtis, JH House, L McLeod) pp. 1–15. (Auckland Institute of Technology: Auckland, New Zealand)
- Durie M (2001) 'Mauri Ora: The Dynamics of Māori Health.' (Oxford University Press: Auckland, New Zealand)
- Dutta MJ (2007) Communicating about culture and health: theorizing culture-centered and cultural sensitivity approaches. *Communication Theory* **17**, 304–328. doi:10.1111/j.1468-2885.2007.00297.x
- Ellison-Loschmann L, Pearce N (2006) Improving access to health care among New Zealand's Maori population *American Journal of Public Health* **96**(4), 612–617. doi:10.2105/AJPH.2005.070680
- Etherington K (2004) 'Becoming a Reflexive Researcher: Using Ourselves in Research.' (Jessica Kingsley: London, UK)
- Gibson O, Lisy K, Aromataris E, Kite E, Lockwood C, Brown A (2015) Enablers and barriers to the implementation of primary health care interventions for Indigenous people with chronic diseases: a systematic review. *Implementation Science; IS* **10**, 71. doi:10.1186/s13012-015-0261-x
- Harris R, Tobias M, Jeffreys M, Waldegrave K, Karlson S, Nazroo J (2006) Racism and health: the relationship between experience of racial discrimination and health in New Zealand. *Social Science & Medicine* **63**(6), 1428–1441. doi:10.1016/j.socscimed.2006.04.009
- Harris R, Cormack D, Tobias M, Yeh L-C, Talamaivao N, Minster J, Timutimu R (2012) The pervasive effects of racism: experiences of racial discrimination in New Zealand over time and associations with multiple health domains. *Social Science & Medicine* **74**, 408–415. doi:10.1016/j.socscimed.2011.11.004
- Hodgetts D, Masters B, Robertson N (2004) Media coverage of 'Decades of Disparity' in ethnic mortality in Aotearoa. *Journal of Community & Applied Social Psychology* **14**(6), 455–472. doi:10.1002/casp.792
- Hodgetts D, Chamberlain K, Tanel Y, Groot S (2014) Looking within and beyond the community: lessons learned by researching theorising and acting to address urban poverty and health. *Journal of Health Psychology* **19**, 97–102. doi:10.1177/1359105313500250
- Kerr S, Penney L, Moewaka Barnes H, McCreanor T (2010) Kaupapa Māori Action Research to improve heart disease services in Aotearoa, New Zealand. *Ethnicity & Health* **15**, 15–31. doi:10.1080/135578509.03374476
- Kidd J, Gibbons V, Kara E, Blundell R, Berryman K (2013) A whānau ora journey of Māori men with chronic illness: a Te Korowai analysis. *AlterNative: An International Journal of Indigenous Peoples* **9**, 125–141. doi:10.1177/117718011300900202
- Korn L, Ryser R (2006) Burying the umbilicus: nutrition trauma, diabetes and traditional medicine in rural west Mexico. In 'Indigenous Peoples and Diabetes: Community Empowerment and Wellness'. (Eds M Ferreira, G Lang) pp. 231–277. (Carolina Academic Press: Durham, NC, USA)
- Lekoko R (2007) Storytelling as a potent research paradigm for indigenous communities. *AlterNative: An International Journal of Indigenous Peoples* **3**(2), 82–95. doi:10.1177/117718010700300206
- Lyons A (2015) Approaches to collecting data. In 'Qualitative Research in Clinical and Health Psychology'. (Eds P Rohlder, A Lyons) pp. 74–91. (Palgrave MacMillan: Hampshire, UK)
- Masters-Awatere B (2017) A game of slides and ladders: Māori providers and funders. In 'Precarity: Uncertain, Insecure and Unequal Lives in Aotearoa New Zealand'. (Eds S Groot, C Van Ommen, B Masters-Awatere, N Tassell-Mataamua) pp. 146–161. (Massey University Press: Auckland, New Zealand)
- Masters-Awatere B, Boulton A, Rata A, Tangitu-Joseph M, Brown R, Cormack D (2017) Behind the label: complexities with identifying as 'Māori' in the Hospital Transfers project. *New Zealand Journal of Psychology* **46**(3), 20–29.
- Michener L, Cook J, Ahmed S, Yonas M, Coyne-Beasley T, Aguilar-Gaxiola S (2012) Aligning the goals of community-engaged research: why and how academic health centers can successfully engage with communities to improve health. *Academic Medicine* **87**(3), 285–291. doi:10.1097/ACM.0b013e3182441680
- Ministry of Health (2015a) Annual update of key results 2014/15: New Zealand health survey. (Ministry of Health: Wellington, New Zealand) Available at <http://www.health.govt.nz/publication/annual-update-key-results-2014-15-new-zealand-health-survey> [Verified 30 January 2019]

- Ministry of Health (2015b) 'Tatau Kahukura: Māori Health Chart Book 2015 (3rd edn).' (Ministry of Health: Wellington, New Zealand)
- Ministry of Health (2016) Whānau hauora: healthy families. (Ministry of Health: Wellington, New Zealand) Available at <http://www.health.govt.nz/our-work/populations/maori-health/he-korowai-oranga/pae-ora-healthy-futures/whanau-ora-healthy-families> [Verified 10 January 2019]
- Oetzel J, Scott N, Hudson M, Masters-Awatere B, Rarere M, Foote J, Beaton A, Ehai T (2017) Implementation framework for chronic disease intervention effectiveness in Māori and other indigenous communities. *Globalization and Health* **13**, 69. doi:10.1186/s12992-017-0295-8
- Ormond A, Cram F, Carter L (2006) Researching our relations: reflections on ethics and marginalisation. *Alternative: An International Journal of Indigenous Peoples* **2**, 174–193. doi:10.1177/117718010600200108
- Paradies Y, Ben J, Denson N, Elias A, Priest N, Pieterse A, Gupta A, Kelaher M, Gee G (2015) Racism as a determinant of health: a systematic review and meta-analysis. *PLoS One* **10**(9), e0138511. doi:10.1371/journal.pone.0138511
- Pihama L (2010) Kaupapa Māori Theory: transforming theory in Aotearoa. *He Pukenga* **9**(2), 5–15.
- Pihama L, Cram F, Walker S (2002) Creating methodological space: a literature review of Kaupapa Māori research. *Canadian Journal of Native Education* **26**(1), 30–43.
- Pihama L, Reynolds P, Smith C, Reid J, Smith LT, Te Nana R (2014) Positioning historical trauma theory within Aotearoa New Zealand. *AlterNative: An International Journal of Indigenous Peoples* **10**, 248–262. doi:10.1177/117718011401000304
- Putaiora Writing Group (2011) 'Te Ara Tika: Guidelines for Māori Research Ethics.' (Health Research Council of New Zealand: Auckland, New Zealand)
- Reid P, Robson B (2007) Understanding health inequalities. In 'Hauora: Māori Standards of Health IV. A study of the Years 2000–2005'. (Eds B Robson, R Harris) pp. 3–10. (Te Rōpū Rangahau Hauora a Eru Pomare: Wellington, New Zealand)
- Reid J, Taylor-Moore K, Varona G (2014) Towards a social-structural model for understanding current disparities in Māori health and well-being. *Journal of Loss and Trauma* **19**(6), 514–536. doi:10.1080/15325024.2013.809295
- Riessman CK (2005) Narrative analysis. In 'Narrative, Memory and Everyday Life'. (Eds N Kelly, C Horrocks, K Milnes, B Roberts, D Robinson) pp. 1–7. (University of Huddersfield: Huddersfield, UK)
- Ruwhiu LA (1999) 'Te Puawaitanga o te ihi me te wehi: the politics of Māori social policy development.' Doctoral thesis. (Massey University: Palmerston North, New Zealand) Available at <https://mro.massey.ac.nz/handle/10179/3529> [Verified 19 September 2018]
- Simmons D, Voyle JA (2003) Reaching hard-to-reach, high-risk populations: piloting a health promotion and diabetes disease prevention programme on an urban marae in New Zealand. *Health Promotion International* **18**(1), 41–50. doi:10.1093/heapro/18.1.41
- Smith LT (2012) 'Decolonizing Methodologies: Research and Indigenous Peoples. 2nd edn.' (Zed Books: New York, NY, USA)
- Stellefson M, Chaney B, Barry AE, Chavarria E, Tennant B, Walsh-Childers K, Sriram P, Zagora J (2013) Chronic disease self-management for older adults: a systematic review. *Journal of Medical Internet Research* **15**(2), e35. doi:10.2196/jmir.2439
- Waitangi Tribunal (2019) Hauora: report on stage one of the Health Services and Outcomes Kaupapa Inquiry WAI 2575: Waitangi Tribunal Report. (Waitangi Tribunal: Wellington, New Zealand)
- Wallerstein N, Oetzel J, Duran B, Belone L, Tafoya G, Rae R (2008) CBPR: what predicts outcomes? In 'Community-Based Participatory Research for Health: From Process to Outcomes, 2nd edn'. (Eds M Minkler, N Wallerstein) pp. 371–92. (Jossey-Bass: San Francisco, CA, USA)
- Walters KL, Mohammed SA, Evans-Campbell T, Beltrán RE, Chae DH, Duran B (2011) Bodies don't just tell stories, they tell histories: embodiment of historical trauma among American Indians and Alaska Natives. *Du Bois Review* **8**(1), 179–189. doi:10.1017/S1742058X1100018X
- World Health Organization (WHO) (2011) 10 facts on health inequities and their causes. (WHO: Geneva, Switzerland) Available at [http://www.who.int/features/factfiles/health\\_inequities/en](http://www.who.int/features/factfiles/health_inequities/en) [Verified 2 December 2016]

### Appendix 1. Glossary (of Māori terms used)

- Aotearoa = Māori name for New Zealand.
- Hapū = sub-tribe (extended family members).
- Hauora = (noun) health, vigour.
- He aha te mea nui o te ao? He tāngata! = What is the most important thing in the world? It is people!
- He Pikinga Waiora = a National Science Challenge project (delivered 2016–19) that focussed on making health interventions work for Māori communities.
- Iwi = tribe, extended family.
- Kapa haka = cultural dance, performance.
- Kaumātua = Elder(s).
- Kaupapa Māori = a philosophical doctrine, incorporating the knowledge, skills, attitudes and values of Māori society.
- Mana = effectual, binding, authoritative, valid.
- Mana Māori = Māori control, Māori autonomy, Māori authority, Māori rights.
- Māori = Indigenous person/people of Aotearoa.
- Marae = the open area in front of the whareniui (main building), where formal greetings and discussions take place.
- Mataatua = Tribal group in the Bay of Plenty region.
- Mātauranga Māori = the body of knowledge originating from Māori ancestors, including the Māori world view and perspectives.
- Mauri = the essential quality and vitality of a being or entity.
- Maunganui [Mt] = Mount Maunganui is a suburb of Tauranga, located on a peninsula to the north-east of the city centre.
- Miririmi = massage.
- Moko, mokopuna = grandchild, grandchildren.
- Pā = Māori housing complex, sometimes referred to as marae housing.
- Pākehā = New Zealanders of European descent.
- Papamoa = a suburb of Tauranga, located 11 km from the city centre.
- Rangatiratanga = chieftainship, right to exercise authority.
- Rauawaawa = service provider delivering culturally focussed and accessible health, social and community-based activities and services for Kaumātua (elders) that aim to enhance their quality of life.
- Rohe = district, region.
- Tainui = name of a tribal group connected through a waka.
- Takitimu = name of a tribal group connected through a waka.
- Tamariki = (noun) children – normally used only in the plural.
- Tauranga = a harbourside city in the Bay of Plenty region on New Zealand's North Island.
- Te Arawa = name of a tribal group connected through a waka.
- Te Puke = a township in the Bay of Plenty region.
- Te Tiriti o Waitangi = refers to the Māori version of the Treaty of Waitangi.
- Tikanga = cultural practices.
- Tino rangatiratanga = self-determination, sovereignty, domination, control.
- Vision Mātauranga = Vision Mātauranga is a New Zealand government science policy framework. Its mission is to unlock the science and innovation potential of Māori knowledge, resources and people for the benefit of all (from: <https://www.sftichallenge.govt.nz/vision-matauranga>).
- Waka = canoe.
- Whakaaro = to think, plan, consider, decide.
- Whakapapa = genealogy, lineage, descent.
- Whakatāne = a town in the Bay of Plenty, New Zealand.
- Whakawhānau = (verb) process of establishing connection. Extends to others to whom one develops a close familial, friendship or reciprocal relationship.
- Whānau = (noun) extended family, family group, a familiar term of address to several people. Sometimes used to include friends who may not have any kinship ties to other members.
- Whānau Māori = family group of Māori descent.
- Whānau Ora = when used in lower case 'whānau ora' refers to 'family health'; when used with capitals, it refers to a major contemporary Indigenous health initiative in New Zealand driven by Māori cultural values.
- Whareniui = meeting house, large house – main building of a marae where guests are accommodated.