

“It is through shared conversation, that I understand”—Māori older adults’ experiences of medicines and related services in Aotearoa New Zealand

Joanna Hikaka, Rhys Jones, Carmel Hughes, Nataly Martini

ABSTRACT

AIM: An understanding of patients’ healthcare experiences and perceptions is essential for developing new health services. In Aotearoa New Zealand, inequities in health outcomes exist, with Māori experiencing worse health outcomes than non-Māori. This includes poorer access to, and quality of, prescribed medicines. This study aims to explore kaumātua (Māori older adults’) experiences of medicines and medicine-related services in New Zealand.

METHOD: This qualitative research applied kaupapa Māori theory and explored Māori older adults’ experiences of medicines and medicine-related services in New Zealand. Ten kaumātua from Auckland, New Zealand participated in semi-structured interviews. Reflexive thematic analysis was used to analyse data.

RESULTS: Three themes were generated: 1. diverse, multi-dimensional realities of medicine-taking for Māori with ageing; 2. medicines supply as a business transaction; and 3. self-determined agency of kaumātua supported by authentic healthcare partnerships. Kaumātua expressed their ability to retain power and control over their medicine therapy and their desire for this to occur within a supportive, authentic partnership model that involves them and their multiple healthcare providers.

CONCLUSION: Māori older adults have the ability, desire and right to control their medicines journey in a way that is relevant to their experiences of medicines. They value support from authentic healthcare partnerships in enabling this.

Patients’ experiences of healthcare services are important, not only in evaluating current services, but also for improving them. The centrality of patient experience to service design is explicit in Māori approaches to research and service development.¹ The right of Māori to meaningfully participate in health is further guaranteed in law, under the Treaty of Waitangi, one of Aotearoa New Zealand’s founding documents, and supported in national policy.² The need for inclusion of patients’ experiences and ideas throughout the health

services development process has gained momentum in mainstream understanding of health service development in the last decade,^{3,4} often under the title of co-creation, co-production or co-design.

Despite law and policy that requires Māori participation and partnership in health, New Zealand systems have failed to protect and facilitate that right.⁵ These failures in the health system (in addition to differential resource distribution influencing social determinants of health such as education, employment and housing)

occur across a wide spectrum of clinical contexts,^{6,7} and result in Māori experiencing poorer health outcomes including higher rates of chronic disease, and reduced life expectancy, compared to non-Māori.⁸ These inequities, contributing factors and disparate health outcomes are seen between Indigenous and non-Indigenous populations across the world.⁹ Past experiences of healthcare influence future engagement and there is a need for engagement to be guided by the patients' needs rather than those of the clinicians.¹⁰

Although medicines are used to alleviate symptoms of disease and improve health and wellbeing outcomes, they are also associated with harm, with Māori bearing this burden disproportionately.¹¹ Māori are more likely to be prescribed medicines associated with higher risk of adverse outcomes, and less likely to be prescribed medicines used to prevent chronic conditions, compared to non-Māori,¹² a disparity which may be increasing over time.¹³ Ensuring optimal medicines use is essential for Māori older adults who identify medicine use as a major influence on their wellbeing.¹⁴

The way in which medicines-related care is delivered impacts people's ability to access medicines. Patient-practitioner relationships, including those with the pharmacist, influence management of chronic medical conditions and medicines.¹⁵ In New Zealand, supply of prescription medicines is almost entirely via community pharmacies with over 1.3 million people visiting these 1,000-plus pharmacies every month.¹⁶ The delivery of medicines-related care from pharmacies may not be meeting the needs of Māori who report a perceived lack of cultural competence and ineffective communication leading to patient-perceived failures of care and poorer health outcomes.¹⁷ Examination of previous experiences of medicines and health services is important when understanding future service delivery and access. Negative experiences can adversely influence future engagement with, and trust in, health professionals and treatment plans, despite Māori perceiving themselves to be engaged, with proactive 'health-seeking' in their behaviour.¹⁸

Health services which support 'optimal' medicines use, which include pharma-

gist-facilitated medicines reviews, delivered within a culturally appropriate and safe model for Māori, has been identified as a key contributor to achieving health equity for Māori.¹⁹ Although pharmacists have traditionally been viewed in a technical capacity to facilitate the supply of medicines, there is growing realisation of the need for pharmacists to be utilising their full set of skills and supporting optimal medicines use.¹⁶ Medicines review services involve a structured and critical review of medicines by health professionals, in partnership with the patient. The aim of these reviews is to develop an agreed medicines treatment and monitoring plan that improves the quality, safety and effectiveness of medicines use.²⁰ In New Zealand, medicines review services range from adherence-based interventions to a comprehensive review considering the full clinical picture and often in collaboration with multi-disciplinary teams.²¹ They occur in a range of settings including the community pharmacy, a patient's home, within a primary healthcare organisation (including general practitioner (GP) practice), residential aged care facilities, in secondary care (in either the inpatient or outpatient setting) or other community settings (for example, community centres).

Pharmacist-facilitated medicines review services for older adults have been shown internationally to improve prescribing and reduce adverse drug events,^{22,23} however, there is little evidence to show the effectiveness of medicines review interventions for older adults in the New Zealand setting.²⁴ At a national level, existing services do not explicitly respond to the needs of Māori in a way that is culturally safe or appropriate, and the contribution they may make to achieving health equity in New Zealand remains unknown.²⁴

Our research group aims to develop a pharmacist-facilitated medicines review service for community-dwelling Māori older adults. This is a complex intervention due to the multiple interacting components and practitioners involved²⁵ and multiple phases are required in the development of the intervention, including review of literature and the identification/development of the theory underpinning the change process for the intervention to be studied, through engagement with stakeholders.²⁵

Understanding the needs and experiences of service users informs this and is central to kaupapa Māori service development.

The aim of this current study was to explore Māori older adults' experiences of medicines and medicine-related services in New Zealand.

Ethics approval was granted by Northern A Health and Disability Ethics Committee, New Zealand (17/NTA/271) and the Te Whānau o Waipareira Ethics Committee (2017), New Zealand.

Methods

A qualitative approach with application of kaupapa Māori theory was chosen to allow in-depth topic exploration within a culturally appropriate framework. Kaupapa Māori theory aims to normalise and centre research around Māori world views and ways of doing,²⁶ and to give Māori power in the research process.²⁷ It acknowledges the influence researchers have in shaping research processes and outcomes,²⁶ and intends positive, transformative change for Māori.²⁷ It has a 'clear cultural and political intent'²⁶ to fight back against colonisation and exert the right of Māori autonomy and self-determination.^{26,27} Kaupapa Māori theory may often be applied within methods and tools seen in mainstream Western research in a way that upholds the core principles of kaupapa Māori theory.²⁸

Recruitment, participants and data collection

Semi-structured interviews were conducted by the lead author (JH), with consented kaumātua (Māori older adults) who were volunteers recruited from two kaumātua groups in Waitemātā District Health Board (WDHB), Auckland, New Zealand. The kaumātua groups met at least monthly, were open to those over the age of 55, and attended by registered members and guests. The purpose of the groups was to encourage social connection, and to inform, and gather support for relevant community activities. JH presented the research topic and asked for volunteers who met eligibility criteria. Kaumātua were eligible if they were: Māori; community-dwelling; 55 years or age or older; taking five or more medicines for at least three months. Those who were unable to give informed

consent were excluded. The age inclusion was chosen as Māori experience onset of chronic conditions from an earlier age and services related to 'older adults' are often accessible to Māori at this younger age in New Zealand. Participants were able to invite family/support people to attend and be involved in the interview. Participants were asked to provide written consent face-to-face, prior to interview commencement. Interviews were conducted in a place of the participants' choosing, and participants were given the choice to be interviewed and respond in either English or te reo Māori (Indigenous language of New Zealand). Participants were given a koha (gift for participation) and kai (food) to support the development of a reciprocal relationship and acknowledge the value of their participation. Whakawhanaungatanga (getting to know each other and establishing connections) occurred prior to and during interviews to encourage Māori cultural norms, recognise the importance of connections to land, people and place and support a more equal power relationship in the research process. Pseudonyms were used in place of the participants' real names. Participants were given the option at point of consent to choose this for themselves or allow one to be assigned to them. Participants could choose any name. Where one was assigned, participants were informed of what it was and had the option to change it. This method allowed participants to choose how they were identified, to see themselves in the reporting of results but in an anonymised way and offered them more power in the process.

Demographic questions were asked in addition to 14 open-ended questions relating to participants' experiences of medicines, and medicine-related health services, medicines education services and medicines review services. Interview questions were informed by review of the literature relating to patients' experience of healthcare and pharmacy services; experience of these services by Māori; the research team's experience of healthcare development and delivery. Participants were also asked questions relating to new service design including where the service should be delivered and by whom, what aspects would be important when designing the service, and what would be markers of service success.

Data analysis

Interviews were audio recorded, transcribed verbatim and checked for accuracy. Participants were given the opportunity to review transcripts, clarify points and remove aspects they did not want included in data analysis. Reflexive thematic analysis²⁹ was used to analyse the data. This is a six phase process,³⁰ where codes are inductively generated through the analysis process. Interview transcripts were read and coded by JH over a period of months in NVivo qualitative data analysis software (QSR International Pty Ltd. Version 12, 2018). Codes were then grouped together to generate themes, reviewed in the context of the 'evidence' (interview transcripts) and reformulated to ensure the themes captured distinct yet connected meaning. JH led the analysis of data with regular face-to-face meetings with RJ and NM to discuss data, codes and thematic development with decisions being made by consensus. Findings were presented to the kaumātua groups to allow for wider discussion and to seek validation of the findings. Quotes are inserted verbatim.

Positionality

Analysis was undertaken by JH, a Māori pharmacist with professional experience of providing medicine review services for Māori and non-Māori older adults within WDHB in the hospital and community setting. She also supported her own grandparents as they aged in relation to medicines management and navigating the health system. JH acknowledges the duality of her status as both an insider and outsider in the research. She is an insider in relation to Māori ethnic whakapapa (genealogical connections) and identity as well as being a community member and health user in WDHB, and an outsider being a researcher and health professional schooled mainly within Western and biomedical paradigms, as well as generationally, where most participants identified her in a relational position more akin to their children or grandchildren than with their generation.

Results

Interviews were conducted with 10 kaumātua between March and June 2018

with the majority of interviews taking place in the participants' homes. Participants were recruited from two different kaumātua group meetings. Participants ranged in age from 68–90 years (median of 76 years) and were on a median of six regular medicines each (ranged from 5–13). All participants resided permanently in Auckland, New Zealand's largest city, however had whakapapa (genealogical connection) to iwi (tribes) from across the North Island of New Zealand. Visits with participants were for a median time of 76 minutes (40–180 minutes) with the recorded interview taking a median of 26 minutes (15–72 minutes). All interviews were conducted in English with the majority including some te reo Māori words or phrases. None of the participants included family or support people in the interview, however, some interviews took place while family members were present in the house and could often hear the conversation.

Interview data was assembled into three themes: 1. diverse, multi-dimensional realities of medicine-taking for Māori with ageing; 2. medicines supply as a business transaction; 3. self-determined agency of kaumātua supported by authentic healthcare partnerships. In summary, Māori older adults wanted to be in control of their medicines journey in a way that reflected their individual needs and realities, and for control to be truly enabled, it had to occur within a context of an authentic partnership with health professionals and health services where they were provided with the information and support needed to make informed decisions.

Diverse, multi-dimensional realities of medicine-taking for Māori older adults

This theme covered Māori older adults' experiences with medicines and medicines-related services and the impact these have on multiple dimensions of health, namely, physical, mental and spiritual states and social connectedness. The diversity, rather than homogeneity, of medicines-related experiences of Māori older adults across these dimensions was also explored. This theme discussed how participants' identity as older adults influences medicines-related experiences.

Diverse, multi-dimensional experiences

The effects of medicines were described as both beneficial and harmful across these multiple dimensions of wellbeing, often simultaneously, and perceptions of medicines were guided by experience. Hinemoa described that being on medicines allowed her to do “everything”, while Hana reported that “everything’s bad” since starting medicines, with medicines playing “a horrible part” in her life. In keeping with the holistic view of Māori health and wellbeing, participants reported not only aspects relating to their physical health but also how medicines could affect other aspects, such as social connectedness, which they also regarded as important to overall wellbeing. Medicines therapy has a positive impact on mobility, thereby increasing the ability to participate in social interactions and activities.

“AA: What do medicines allow you to do?”

“To walk! And move around as well as I can. A lot of people say I’m good for 90 plus... but without those tablets I don’t think I would be able to do it.” (Ana, 90, female)

“I can walk around, can play sport, mix and mingle, go to the kaumātua hui (meeting). Be up and about.” (Wiki, 76, male)

However, adverse effects of medicines also impacted significantly on physical and mental wellbeing.

“I feel like my body has changed since I have taken my tablets... I don’t feel well, [it’s] all the time and I’m depressed... sometimes I don’t know whether it is better to die than to take them.” (Hana, 79, female)

Perception of self was also linked to medicine use. A number of participants described that their mana (self-esteem, pride, standing) was negatively impacted by taking medicines. This was linked to taking medicines in general and also the adverse effects resulting from them. Beth (75 years, female) reported that she had not told her family she was on medicines as it may have adversely affected her image of being “Super Nanny”. Mere described that one medicine caused extensive bruising and she thought that the cause of this bruising would be misinterpreted.

“...it looked like somebody had beaten me up, you know, I would be bruised all over the place.” (Mere, 70, female)

Participants expressed that these multiple aspects should be taken into account when medicines were prescribed:

“You would hope that the medicines you are getting is the best that is available for that, for your particular case.” (Mārama, 71, female)

However, this was inconsistent with how they saw services actually being delivered:

“We are all built differently and we are all, you know, we might all have the same, like, heart and a lung and a kidney and that, but we all kind of still function a little differently from one another, but they give one medicine to suit all human beings and I think that’s wrong.” (Hana, 79, female)

Participants’ views on medicines were not fixed through their life course. There was fluidity, whereby their experiences of medicines influenced their perception of, and trust in, medicines. For some, being on medicines increased trust, while the experience for most participants was that they were unable to notice a benefit from medicines and had questioned whether it was all “smoke and mirrors” (Weka, 68, male).

“To be honest with you, I never liked pills, I never believed in pills, but I have seen what it had done for me and so I have changed my attitude.” (Beth, 75, female)

“I am taking them regularly day and night so, you know, so, and I don’t know whether that is making that much difference. Or maybe it is and I just don’t know.” (Mārama, 71 years, female)

This data highlights the multi-dimensional impact of medicines-related experiences of kaumātua and the diversity of these experiences.

Older adult identity

Participants reported that their reality of being an older adult negatively impacted on treatment offered to them, both in terms of medicines prescribers chose to offer them and the way in which they were treated.

“I’m thinking all these blimmen doctors know what these pills are doing to people and in myself, I’m thinking, they just want to target the older people because older people are more likely to use all of those medicines than younger people so the idea is, use these older people as guinea pigs.” (Mere, 70 years, female)

“So, if you get some young person saying to you ‘well you’re old mate, put up with it’ it’s a bit self-deflating, you know, not so much a put down it’s just that it’s the way the message is delivered.” (Weka, 68 years, male)

Hana described how she was reluctant to discuss any medicine-related adverse effects with her doctor as *“I think they’ll only bung it off as old age or something”*. (Hana, 79, female)

Participants did feel that age was an important consideration when prescribing and reviewing medicines. There was a general understanding that changes in the body with age meant that medicines would be handled differently by the body. However, they framed this in a more positive way—whereby extra care should be taken with people as they aged due to the changes occurring in the body.

“The body changes, and it changes really dramatically by the time you reach 80 anyway, so a lot of things are happening for kaumātua and kuia (older women) from say 70, 70 plus, and if we are surviving to say 80 plus, that’s a bonus, that’s good, so I suppose there needs to be some kind of, yeah, some kind of, how shall we say it, where that there’s a little centre, just like, however, however it is designed, that our kaumātua and kuia go and talk...” (Hōne, 78 years, male)

The quote from Hōne above not only reflects understanding of the biophysical changes of ageing, leading to changes in how the body processes medicines, but that there are cultural differences afforded with age which should influence the approaches we take in relation to service delivery.

Medicines supply as a business transaction

This theme explored medicines as a commodity, with the supply being undertaken as a task devoid of the professional relationship that is usually associated with the cultural and compassionate medicines therapy and healthcare. Also included in this theme was participants’ acceptance of this way in which services are delivered, with past experiences guiding expectations. This was demonstrated both through the way in which experiences of medicine supply services (usually through community pharmacies) were described and also when relaying markers of ‘good’ pharmacy services.

Medicines supply without healthcare relationship

Participants reported a lack of relationship development from their pharmacist and pharmacy staff. This did not appear to be viewed as a failing of their particular pharmacy, but a comment on the nature of pharmacy and medicine supply itself. Participants commented that the pharmacy interaction largely related to medicine supply, just a process that itself was the last step in a long chain required to get access to a medicine. People seemed to be treated “the same” within this process, with participants feeling like they were “just a number” (Hana, 79, female).

“To me they are, the way I see, they treat everybody the same, they greet everybody and, yeah, and [it’s just] a process.” (Richie, 82 years, female)

Wiki described that for him, the medicine supply process was removed from any other aspect of healthcare and that this could occur in a void of connectedness with pharmacy staff.

“I only go to get script medicines. I don’t know who they are, whether they are good or bad people.” (Wiki, 76 years, male)

In our study, few participants discussed experiencing the delivery of surrounding support and care from pharmacies although Hōne did describe appreciating his pharmacy service as he felt he was part of the “pharmacy whānau (family)”. Wiki described this in relation to the absence of poor interactions rather than the presence of meaningful ones.

“I don’t have much to do with them except to say there is a long waiting time. They don’t give you a hard time.” (Wiki, 76 years, male)

Acceptance of pharmacists as medicine suppliers

The general feeling among participants was that pharmacists were acting appropriately in this role as ‘medicine-supplier’. This view was informed by their experiences of pharmacy services, where the majority had not received medicines information or education support from within pharmacies. Although participants felt they needed more medicines-related information, it was not generally sought from pharmacists/pharmacies. Nor was it expected that this would, or should, come from pharmacists or

pharmacy staff, but from their GP or staff at the medical centre.

The concept of what made a ‘successful’ pharmacy service was explored in the interviews, with most participants valuing the services in relation to convenience, timely supply of medicines without error, which further supported the participants’ view of the transactional, medicine-supply nature of pharmacy services in New Zealand.

“They are very, very good, I will always, I recommend them to anybody, you know, they will attend to you immediately... and they have never [made a mistake], as far as I can tell—I always check my pills to make sure they are the right ones—they are not giving me something else, mmm, so they are very good pharmacists.” (Beth, 75 years, female)

Self-determined agency of kaumātua supported by authentic healthcare partnerships

This theme explored the desire and willingness of kaumātua to control their medicines-related health. To enable this, kaumātua needed to be given power within the healthcare partnership. Included in this theme was the concept that kaumātua valued the formation of authentic healthcare partnerships in order to exert this control. The desire, willingness and right to control medicines journey

Participants talked of their right to make decisions about their health—that health professionals were there to enable access but that ultimately it came back to allowing the patient to make the final decision for themselves:

“...a doctor is just there to prescribe, not to tell you... to take them or anything.” (Mārama, 71, female)

One participant expressed this by talking of the patient’s responsibility to look after their health and that medicines should only play a limited part of this.

“I don’t think [medicines] are meant to cure, I think we all have to cure ourselves and that’s our lifestyles, how to do that.” (Beth, 75, female)

For Weka, his feeling of responsibility was an act of self-preservation with the notion that an individual is their own best advocate:

“You realise as you get older unless you actually pursue it yourself, it’s... (shrugs).” (Weka, 69, male)

This sense of responsibility for their own health-led participants to seek further information. They offered numerous examples of situations where they assumed the role of leading conversations with health professionals about their medicines treatment. Examples below involve participants recounting conversations with their GPs.

“I said, ‘No I don’t want to take that other stuff, it makes me sick. All the time I feel sick’, and she said, ‘It’s alright’. I said, ‘Why I can’t take Disprin... Why can’t I take that?’ She said, ‘well it’s not as effective as the dabigatran’. I said ‘Oh, but I’ve heard it from other people, they take it, can I have it?’.” (Mere, 70, female)

Participants also took control and sought information from other sources, with most accessing the internet as at least one source, to enable them to make decisions.

“Sometimes I look on the computer... But it doesn’t tell you a heck of a lot, you know for the side effects and that.” (Hana, 79, female)

Valuing authentic healthcare partnerships

Despite kaumātua expressing a desire and ability to control their medicines-related health, they wanted this to occur within an authentic healthcare partnership. One participant explained how a strong relationship with his pharmacist was formed when the pharmacist shared that he also took medicine:

“You occasionally run into chemists who will, what’s the word, enlighten you. So, they explain to you about various side effects and relevant information like ‘I’m a chemist. I’m around the same age as you and I have to take these pills as well’.” (Weka, 69, male)

For Weka, the sharing information led to a shared relationship with his pharmacist—they were both ‘medicine-takers’ and health consumers, making it easier to take medicines information on board.

The perceived intent of the health professional also contributed to the ability to form a wellbeing partnership. It was important to participants that they felt that health professionals cared about them and their

wellbeing, which supported the development of trust. Participants also felt that they were good judges of character, experience that had come with age.

“Kuia (older female), kaumātua have been around for many years. They’ve been around and they know what a person brings. They know that ‘Hey, that person is sincere; that person wants to look after us’. Their experience of how they’ve dealt with people in the past—they can read people...” (Mere, 70, female)

To create an authentic partnership, the participant and health professional needed to be equally powerful and equally engaged in the interaction. Weka described this using a Māori phrase—*“No te whitiwhiti kōrero, i mohio ai (it is through shared conversation, that I understand)”*. Hōne also discussed the importance of talking; believing that adopting the equitably powered ‘conversation’ model to medicines reviews services was central to the whole model.

“We are looking at sitting down and having a good little kōrero (talk) and bringing that kind of understanding, yeah. I think that, to me, that could be valid thing, aye. Never seen or heard before!” (Hōne, 78, male)

These partnerships had to extend beyond personal relationships—participants’ wellbeing did need to be central to the relationship of the *healthcare* partnership. Participants described non-malicious failures of care, whereby, despite the health professionals’ best intentions, the relationship did not provide outcomes which improved wellbeing. When describing this, participants talked of how they did not receive information needed to make decisions, or it was delivered in a way that was difficult to understand, thereby removing the ability of kaumātua to take control. Participants recognised that health professionals were “trying”; however, they were still left in a situation where they felt they were not receiving the appropriate healthcare.

The concept of partnership extended beyond two parties; participants had the expectation that all health professionals involved in a patient’s care were working in a connected and collaborative way. This expectation was expressed through confusion over conflicting information and

difficulties in navigating the fragmented health system.

“I really don’t know who to listen to, because specialists say one thing, the doctors are saying one thing and the pharmacists are just making it up as they say, you know, just reading the prescription and doing as they are told.” (Hana, 79, female)

“I didn’t know what any of this was about, what services were available. They weren’t linked up. I didn’t know what (was happening) and no one wants to talk about it. I want to know the process to go through to get help.” (Wiki, 76, male)

The power that kaumātua felt in their relationships with health professionals and the health system, and therefore the amount of control participants assumed for themselves, was influenced by past experiences of medicines and medicines-related services. Hana described that medicines-related side effects influenced whether she would continue taking new medicines and how having information about potential benefits of the medicines allowed her to make a balanced, informed decision.

“That’s why I feel like just throwing them, like I did with the cholesterol stuff, you know, but I don’t think this one is a wise thing to do because it involves my heart.” (Hana, 79, female)

Participants recognised that their experiences guided their negotiated position and therefore that their desire for control may be different from others.

“[Other kaumātua say] ‘Oh what are you doing chasing them up about your heart condition, you know, just take your bloody pills and get on with your life.’ And, well, he doesn’t suffer from side effects, you know...” (Weka, 69, male)

Discussion

This study found that kaumātua medicines and medicines-related services impacted on their minds, bodies and social relationships. Pharmacists were viewed as acting appropriately in the role of medicine-supplier, with service success being based on operational tasks. Kaumātua expressed the ability, desire and right to control their medicines journey and valued authentic healthcare

relationships to support this. These findings are important when developing future pharmacist-facilitated medicines review for Māori older adults.

Māori models of wellbeing and health are holistically framed^{35,36} with consideration given physical, mental and spiritual states, as well as their impact on family and social connections. The multi-dimensional understanding, impact and required response is an important consideration when developing medicines-related services for kaumātua. This data highlights the multi-dimensional impact of medicine-related experiences by kaumātua and the need to understand the patient's goals of therapy, and the level of potential for medicines-related harm they are willing to accept, to achieve these outcomes. It highlights deep understanding by kaumātua that what is 'right' for one person may not be appropriate for another, and the need for individualisation of medicines therapy. The multiple dimensions which contribute to and influence wellbeing are often incorporated into Māori service design and evaluation^{37,38} and will be important to consider when implementing and evaluating medicines review services for kaumātua.

The diversity of responses from participants around their experiences and the relevance placed on each of these dimensions of wellbeing by different individuals is also important to note. Although the comparison between Māori and non-Māori is useful for the purposes of examining health outcomes for Māori in the context of equity, it can lead to the homogenisation of Māori as one distinct, uniform group, which ignores the 'diverse Māori realities',³⁹ also described as the 'denial of a plurality'.⁴⁰ In contrast, kaupapa Māori research centres on whakapapa (genealogical connections), makes space for the diversity of Māori⁴¹ and allows the acknowledgement of this diversity to be incorporated into research practices and health service design. To account for the diversity in experiences for Māori older adults, medicines review services need to be flexible enough to be able to respond in accordance to different needs of kaumātua.

The contrast between participants' actual versus desired experience of aged-related

medicines care is given further context if we explore the idea of Māori ageing within contemporary New Zealand society. In Western society, normative discourse talks of the 'burden' that the ageing population and older adults place on society. This is discussed in relation to both the increased care requirements, and through the financial burden associated with older adults' lack of paid employment and increased healthcare utilisation.³¹ In Māori culture, older adults are often revered, with importance being placed on the 'social and cultural capital' they provide.³² This is not only important to their own family but also for the contribution to intergenerational development in the wider community. The right of Māori older adults to receive care that is appropriate to their needs is, therefore, not only important from a social justice perspective but also as it adds value to Māori society. The contribution that older adults make to society in New Zealand has been examined in a longitudinal cohort study of almost 1,000 Māori and non-Māori 80–90 year olds.³³ This showed that up to one in five took part in either voluntary or paid work and 96% supported grandchildren (through a mixture of supports including financial support and shared parenting).³³ The 'older adults as a burden' discourse fails to recognise the contribution older adults make to society and aspects of this are reflected in the way in which participants discussed the impact of age on their treatment options whereby they were expected to accept worsening health as a part of the ageing process and that they were valued less and could be 'experimented' on when it came to medicines use. This study shows how this discourse has been internalised and makes participants question whether value is placed on them as a member of contemporary society. Hōne also reflected on ageing past 80 as a 'bonus' which is indeed the lived reality for Māori men for whom life expectancy is 73 years (compared to 80.3 years for non-Māori).³⁴ Poorer health outcomes for Māori, which are ultimately reflected in life expectancy statistics, remain the expected norm. This is despite New Zealand legislation and policy stating the need for equitable health outcomes. The health system and New Zealand society in general, need to refute

this reality and undertake change that is pro-equity and reaffirms to Māori that this should not, and will not, be accepted.

In developing pharmacist-led medicines review services, it is important to understand not only how patients will utilise the service, but also how they will judge success. Participants focused on operational tasks, such as correct and timely medicines supply, as important aspects of pharmacist care. This finding is in line with other research into patient preferences of community pharmacy attributes where it was found participants valued competence-based attributes (including checking for drug-drug interactions) over relationship-based attributes such as staff friendliness and courtesy.⁴² There was little expectation that medicines education would, or should, come from pharmacists or pharmacy staff. Instead, they relied on their GP or staff at the medical centre for this support, a finding which Krueget and Hermansen-Kobulnicky (2011) also reported.⁴³

Pharmacist-led medicines review services extend beyond information provision, and into optimising medicines use and medicine treatment recommendations. Public perception of pharmacists' roles and capabilities is important to consider when developing medicines review services. It may have particular relevance in the implementation phase to improve acceptability of pharmacists as the deliverer of these services and in primary care where the majority of exposure to pharmacy services will be via community pharmacies operating within the dichotomy of being both a health professional and commercial retailer.⁴⁴ Increased understanding of the potential of pharmacists in clinical roles is also relevant in this population group—older adults—where generational differences in exposure to, and experience of, pharmacist services may exist, and be less reflective of the increased clinical roles pharmacists are now taking on; and Māori whom, compared to non-Māori, may have experienced poorer access to pharmacy services⁴⁵ and self-perceived poorer quality of pharmacy care.¹⁷

Participants' desire to control their medicines' journey was driven by a sense of responsibility to take charge of their healthcare, and their self-identified right to do so. They discussed factors which

support redressing power imbalance in medicines management and the development of authentic partnerships between participants and healthcare professionals. Although participants felt medicines could be supplied outside of this partnership model, when it came to consultations, the provision of information, and health decision-making, this partnership was essential. The concept of *whakawhanaungatanga* relates to the process of making meaningful, respectful connections in a reciprocal way and is an important part of kaupapa Māori health services and research.²⁷ Although it is often referred to as family connections, it extends into any relationship where people have a sense of belonging through shared stories and experiences. Establishing a connection with patients by undertaking *whakawhanaungatanga* (making a connection) in health professional engagements has previously been identified as important in healthcare delivery for Māori and is a key step in The Hui Process, a model designed to support clinicians to deliver culturally appropriate care to Māori.⁴⁶

The right for Māori to participate in their health and wellbeing is set out in the Treaty of Waitangi although failings to enact the Treaty across the health system means that enabled, active participation is not the reality for Māori.^{5,47} The control and responsibility sought by Māori older adults in this study provides a counter-narrative to discussions that often emerge in relation to Māori and healthcare. The dominant discourse is that the poorer health outcomes experienced by Māori can be blamed on individuals, and Māori cultural and societal norms.⁴⁸ The effects of the normative nature of this discourse can be seen both in practicing clinicians^{18,48} as well as those training to become doctors⁴⁹ and has implications for the care offered to Māori. Narratives of Māori non-adherence with medicines is an example of this and is relevant to this study. The subsequent blame placed on an individual for the associated disparate outcomes, occurs in a void of evidence and is in contrast to the World Health Organization's position that non-adherence indicates health service failings at a systems level, rather than at a patient-level.⁵⁰ Recommendations to remedy this include empowering patients to be involved in the management

of their health conditions and outcomes.⁵⁰ It is important that the accountability remains on the health system to facilitate patients' agency and control.

In this study, participants described the ability to ask questions, assume responsibility and make informed decisions, however, this required a high degree of self-advocacy, and often still relied the healthcare professional enablement. This finding is similar to other work, where Māori described that their ability to ask medicine-related questions and seek control was not the issue; the limiting factor was health professionals' skills and willingness to allow this to occur,⁵¹ in other words, the ability to give power to patients and form an authentic partnership.

Convenience sampling by use of volunteer participants is a potential limitation of this research. Participants were recruited from kaumātua groups, where members were already engaged to some extent in the local community. Therefore, it may not represent the voices of those most isolated from health and social services, or those in a space, be that physically, emotionally or spiritually, that makes it difficult to volunteer time for participation in research. In order to mitigate this issue, results were disseminated to large numbers of kaumātua in different forums to allow for wider consensus-building and validation of findings. Another potential limitation is the position of the primary researcher (JH) as an outsider—a researcher and health professional—which may have affected the extent to which participants felt safe and able to openly discuss their experiences. Her position as an insider, with shared Māori identity, supported culturally appropriate

interactions may have allowed for more open discussion than would have been afforded to non-Māori researchers.

We have described that participants were prepared to take control of medicine-related decisions; however, this could not happen in a void of information. Participants often relied on their health professionals providing them with the information they needed to make decisions, and to support them through this process within a therapeutic partnership. Although the understanding of the importance of authentic therapeutic partnerships is not unique to Māori older adults, it is important to understand our participants' views on how this could be enacted for them, in their position as older Māori in contemporary New Zealand.

The experiences of Māori older adults with medicines and medicine-related service can be used to guide the development of pharmacist-facilitated medicines review services for Māori older adults. These services need to be reflective of the impact of medicines across the multiple dimensions of wellbeing, including social connectedness, physical and mental wellbeing, and be flexible enough to respond to the diverse needs of individuals. Service provision could happen independently of medicine supply; however, community pharmacy may provide a convenient access point to services for many. The service should provide Māori older adults with the medicines information they need to make decisions about their medicines therapy, tailored to their individual circumstances, needs and goals, and be provided within a supportive, authentic partnership model that involves the patient and their multiple healthcare providers.

Competing interests:

This work was supported by the Health Research Council of New Zealand [17/134], a WDHBC Contestable Grant [Hikaka/2017] and a Pharmacy Education and Research Foundation grant. Funders had no role in study design, implementation or reporting.

Acknowledgements:

Thank you to the kaumātua who participated in, engaged with, and supported this research.

Author information:

Joanna Hikaka, School of Pharmacy, University of Auckland; Waitematā District Health Board, Auckland; Rhys Jones, Te Kupenga Hauora Māori, University of Auckland, Auckland; Carmel Hughes, School of Pharmacy, Queen's University, Belfast, UK; Nataly Martini, School of Pharmacy, University of Auckland, Auckland.

Corresponding author:

Joanna Hikaka, School of Pharmacy, University of Auckland, Private Bag 92019, Auckland 1142.
j.hikaka@auckland.ac.nz

URL:

www.nzma.org.nz/journal-articles/it-is-through-shared-conversation-that-i-understand-maori-older-adults-experiences-of-medicines-and-related-services-in-aotearoa-new-zealand

REFERENCES:

- Hudson M, Milne M, Reynolds P, Russell K, Smith B. Te Ara Tika: Guidelines for Māori research ethics : A framework for researchers and ethics committee members. Auckland, N.Z.: Health Research Council of New Zealand on behalf of the Pūtaiora Writing Group; 2010.
- Ministry of Health. The guide to He Korowai Oranga - Māori Health Strategy. Wellington: Ministry of Health; 2014.
- Lee D. A model for designing healthcare service based on the patient experience. *International Journal of Healthcare Management*. 2017 Aug; 1–9.
- Boyd H, McKernon S, Mullin B, Old A. Improving healthcare through the use of co-design - New Zealand Medical Journal. *New Zealand Medical Journal*. 2012; 125(1357).
- Waitangi Tribunal. Hauora -Report on Stage One of the Health Services and Outcomes Kaupapa Inquiry. Wai 2575. Wellington: Waitangi Tribunal; 2019.
- Crengle S, Lay-Yee R, Davis P, Pearson, J. A comparison of Māori and non-Māori patient visits to doctors: The National Primary Medical Care Survey (NatMedCa) :2001/02. Wellington, N.Z.: Ministry of Health; 2005.
- Davis P, Lay-Yee R, Dyllal L, Briant R, Sporle A, Brunt D, et al. Quality of hospital care for Māori patients in New Zealand: retrospective cross-sectional assessment. *The Lancet*. 2006 Jun; 367(9526):1920–5.
- Ministry of Health. Tatau Kahakura: Māori Health Chart Book 2015. 3rd ed. Wellington: Ministry of Health; 2015.
- King M, Smith A, Gracey M. Indigenous health part 2: the underlying causes of the health gap. *The Lancet*. 2009 Jul; 374(9683):76–85.
- Sheridan NF, Kenealy TW, Kidd JD, Schmidt-Busby JL, Hand JE, Raphael DL, et al. Patients' engagement in primary care: powerlessness and compounding jeopardy. A qualitative study. *Health Expectations*. 2015; 18(1):32–43.
- Nishtala PS, Narayan SW, Wang T, Hilmer SN. Associations of drug burden index with falls, general practitioner visits, and mortality in older people. *Pharmacoepidemiology and Drug Safety*. 2014; 23(7):753–758.
- Metcalfe S, Laking G, Arnold J. Variation in the use of medicines by ethnicity during 2006/07 in New Zealand: a preliminary analysis. *The New Zealand Medical Journal*. 2013; 126(1384).
- Metcalfe S, Beyene K, Urlich J, Jones R, Proffitt C, Harrison J, et al. Te Wero tonu—the challenge continues: Māori access to medicines 2006/07–2012/13 update. *New Zealand Medical Journal*. 2018; 131(1485).
- Allport T, Martin G, White H. Kaumātua-tanga - The needs and wellbeing of older Māori. Auckland, N.Z.: Te Pou Matakana; 2018.
- Carlson TAL. Kaupapa Māori evaluation : transforming health literacy [Doctoral Thesis].

- [New Zealand]: Massey University; 2018.
16. Ministry of Health. Pharmacy action plan 2016 to 2020. [Internet]. Wellington, N.Z.: Ministry of Health; 2016 [cited 2019 Mar 25]. Available from: <http://www.health.govt.nz/system/files/documents/publications/pharmacy-action-plan-2016-to-2020.pdf>
 17. BassettClarke D, Krass I, Bajorek B. Ethnic differences of medicines-taking in older adults: A cross cultural study in New Zealand. *International Journal of Pharmacy Practice*. 2012; 20(2):90–8.
 18. Penney L, Barnes HM, Mccreanor T. The Blame Game: Constructions of Māori medical compliance. *AlterNative: An International Journal of Indigenous Peoples*. 2011 Oct; 7(2):73–86.
 19. Te Karu L, Bryant L, Harwood M, Arroll B. Achieving health equity in Aotearoa New Zealand: the contribution of medicines optimisation. *Journal of Primary Health Care*. 2018; 10(1):5.
 20. Blenkinsopp A, Bond C, Raynor DK. Medication reviews. *British Journal of Clinical Pharmacology*. 2012; 74(4):573–80.
 21. Pharmaceutical Society of New Zealand. New Zealand National Pharmacist Services Framework 2014. 2014.
 22. Gray SL, Hart LA, Perera S, Semla TP, Schmader KE, Hanlon JT. Meta-analysis of Interventions to Reduce Adverse Drug Reactions in Older Adults. *Journal of the American Geriatrics Society*. 2018; 66(2):282–288.
 23. Riordan DO, Walsh KA, Galvin R, Sinnott C, Kearney PM, Byrne S. The effect of pharmacist-led interventions in optimising prescribing in older adults in primary care: a systematic review. *SAGE open medicine*. 2016; 4:1–18.
 24. Hikaka J, Hughes C, Jones R, Connolly MJ, Martini N. A systematic review of pharmacist-led medicines review services in New Zealand – is there equity for Māori older adults? *Research in Social and Administrative Pharmacy*. 2019; 15(12):1383–94.
 25. Craig P, Dieppe P, Macintyre S, Michie S, Nazareth I, Petticrew M, et al. Developing and evaluating complex interventions: the new Medical Research Council guidance. *British Medical Journal*. 2008; 337:a1655.
 26. Pihama L. Kaupapa Māori theory: transforming theory in Aotearoa. *He Pukenga Korero*. 2010; 9(2):5–14.
 27. Smith LT. *Decolonising methodologies: Research and indigenous peoples*. 2nd ed. London: Zed Books; 2012.
 28. Henry E, Pene H. Kaupapa Maori: Locating Indigenous Ontology, Epistemology and Methodology in the Academy. *Organization*. 2001 May; 8(2):234–42.
 29. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology*. 2006 Jan; 3(2):77–101.
 30. Terry G, Hayfield N, Clarke V, Braun V. Thematic Analysis. In: *The SAGE Handbook of Qualitative Research in Psychology*. 2nd ed. London: SAGE Publications Ltd; 2017.
 31. Phelan A. Researching Ageism through Discourse. In: Ayalon L, Tesch-Römer C, editors. *Contemporary Perspectives on Ageism*. Cham: Springer International Publishing; 2018. p. 549–64.
 32. Durie M. Impacts of an Ageing Population on New Zealand Society. In: *Nga tini whetu: Navigating Maori futures*. Wellington, N.Z.: Huia Publishers; 2009.
 33. Kerse N, Lapsley H, Moyes S, Mules R, Edlin R. *Health, Independence and Caregiving in Advanced Age*. Auckland, N.Z.: The University of Auckland; 2016 p. 211.
 34. Stats NZ. *New Zealand Period Life Tables: 2012–14* [Internet]. Stat NZ; 2015 [cited 2019 Aug 7]. Available from: http://archive.stats.govt.nz/browse_for_stats/health/life_expectancy/NZLifeTables_HOTP12-14.aspx
 35. Durie M. *Whaiora: Māori health development*. Auckland, N.Z.: Oxford University Press; 1998. 68–74 p.
 36. Pere R. *Te Wheke: A celebration of infinite wisdom*. 2nd ed. Gisborne: Aoako Global Learning NZ Ltd; 1997.
 37. Kingi TK, Durie M. “Hua Oranga” A Maori Measure of Mental Health Outcome. *Palmerston North: Massey University*; 1999 p. 79.
 38. Pitama S, Robertson P, Cram F, Gillies M, Huria T, Dallas-Katoa W. *Meihana Model: A Clinical Assessment Framework*. *New Zealand Journal of Psychology*. 2007; 36(3).
 39. Durie M. *Ngā Matatini Māori - Diverse Māori realities*. Massey University; 1995.
 40. Stuart I. The Māori public sphere. *Pacific Journalism Review*. 2005; 11(1):13–25.
 41. Webber M. The multiple selves and realities of a Māori researcher. *MAI Review*. 2009; 1(1):1–8.
 42. Patterson JA, Holdford DA, Harpe SE. Patient preferences for objective quality

- metrics during community pharmacy selection: A discrete choice experiment. *Research in Social and Administrative Pharmacy*. 2019 Jun 1; 15(6):641–9.
43. Krueger J, Hermansen-Kobulnicky C. Patient perspective of medication information desired and barriers to asking pharmacists questions. *Journal of the American Pharmacists Association*. 2011; 51(4):510–9.
 44. Scahill SL, Tracey MS, Sayers JG, Warren L. Being healthcare provider and retailer: perceiving and managing tensions in community pharmacy. *Journal of Pharmacy Practice and Research*. 2018; 48(3):251–61.
 45. Norris P. Which sorts of pharmacies provide more patient counselling? *Journal of Health Services Research & Policy*. 2002; 7(1_suppl):23–28.
 46. Lacey C, Huria T, Beckert L, Gillies M, Pitama S. The Hui Process: a framework to enhance the doctor–patient relationship with Māori. *New Zealand Medical Journal* [Internet]. 2011 [cited 2019 Oct 17];124(1347). Available from: <http://www.nzma.org-nz.ezproxy.auckland.ac.nz/journal/read-the-journal/all-issues/2010-2019/2011/vol-124-no-1347/view-lacey>
 47. Health and Disability System Review. *Health and Disability System Review: Interim report*. Hauora manaaki ki Aotearoa whānui - Pūrongo mō tēnei wā. Wellington: HDSR; 2019 p. 312.
 48. McCreanor T, Nairn R. Tauīwi General Practitioners' Explanations of Māori Health: Colonial Relations in Primary Healthcare in Aotearoa/New Zealand? *Journal of Health Psychology*. 2002 Sep 1; 7(5):509–18.
 49. Cormack D, Harris R, Stanley J, Lacey C, Jones R, Curtis E. Ethnic bias amongst medical students in Aotearoa/New Zealand: Findings from the Bias and Decision Making in Medicine (BDMM) study. *PLOS ONE*. 2018 Aug 10; 13(8):e0201168.
 50. Pruitt S. Innovative care for chronic conditions: building blocks for action: global report [Internet]. World Health Organisation; 2002 [cited 2019 Aug 15]. Available from: <http://www.who.int/chp/knowledge/publications/iccreport/en/>
 51. Carlson T, Moewaka Barnes H, McCreanor T. Health literacy in action: Kaupapa Māori evaluation of a cardiovascular disease medications health literacy intervention. *AlterNative: An International Journal of Indigenous Peoples*. 2019 Jun 1; 15(2):101–10.