Aotearoa New Zealand Tongan Residents' Attitudes to Chronic Cough and Access to Healthcare

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ABSTRACT

Little is known about the unique attitudes of Aotearoa New Zealand Tongan residents to chronic cough and healthcare access. Chronic cough is synonymous with respiratory conditions and delayed assessment and management may result in detrimental effects on quality of life, hospital admission, and mortality. Talanoa were undertaken with seven Tongan adults to explore attitudes to chronic cough and healthcare access that may facilitate or inhibit diagnosis and management. Three key themes were constructed representing disruption to dimensions of the Fonua model of health and an imbalance between the interconnectivity of life's dimensions: (1) "feeling the cold" and the "warmth of remedies"; (2) the multidimensional impact of cough and action/inaction taken; and (3) discrepancies between understanding and accessing cough care, including respiratory physiotherapy. Study findings highlight the importance of increased community understanding of chronic cough and why and how to better access care pathways. Appreciation of the unique cultural nuances and health models of diverse patient populations, including Tongan, is essential to enhance engagement and ensure culturally responsive practice is provided. The promotion and marketing of respiratory physiotherapy in cough management is also required so that people understand, access, and engage with therapies to optimise their respiratory health.

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INTRODUCTION

Cough is an essential and reflexive mechanism for protecting and clearing the airways (Andrani et al., 2018). An abnormal cough, e.g., persistent, ineffective, or associated with increased airway secretions, impacts on an individual's quality of life in relation to negative social, psychological, and physical consequences (French et al., 1998; Jin & Kim, 2020; Morice et al., 2021). Cough is associated with a high global prevalence, affecting between 4% and 10% of the adult population (Çolak et al., 2017), resulting in a high health burden and significant morbidity (Song et al., 2015). Cough is also one of the most common symptoms that prompts individuals into seeking medical attention (Kaplan, 2019), in primary and specialist clinical areas, i.e., respiratory, cardiology, etc. (Chamberlain et al., 2015). While associated with multiple causes, chronic cough, that is, a cough lasting longer than 12 weeks (Irwin, 2006; Morice et al., 2020), requires investigation for potential causes, diagnosis, and associated management of, for example, asthma, lung cancer, or bronchiectasis (Farooqi et al., 2020). Chronic cough is characteristic of many respiratory diseases of which Pacific People bear the greatest burden (Telfar Barnard & Zhang, 2021). It is therefore relevant to explore attitudes and beliefs, from a Pacific People's perspective, and specifically Tongan, around cough and better understand their health journey to influence understanding, access, and equity.

Access to health services is available to all New Zealanders; however, despite this, continued health inequities remain evident with Pacific People and Māori sharing the highest respiratory health burden (Telfar Barnard & Zhang, 2021). Barriers to primary care access include cost, transport, and language, in addition to family commitments, difficulty attending appointments due to inflexible work arrangements, not understanding the appointment purpose, and cultural discomfort when discussing issues with non-Pacific healthcare providers (Southwick et al., 2012). Risk factors for chronic conditions have also been found in Pacific People as evident early in life (Talemaitoga, 2010). For many Pacific People residing in Counties Manukau, low income, high unemployment, and overcrowding contributes towards poor health outcomes (Counties Manukau Health, 2017) and, by association, increased presentation of established and chronic conditions including, for example, respiratory disease.

Pacific People in Aotearoa New Zealand

Recognised as the fourth largest major ethnic group in New Zealand, 17 ethnic groups make up the total Pacific population (Ministry for Pacific Peoples, 2021). Samoan (49%) and Tongan (20%) are more represented (Pasefika Proud, 2016), with Tongan experiencing the highest percentage population increase in the last five years (Ministry for Pacific Peoples, 2021). Within Health New Zealand Te Whatu Ora Counties Manukau, Pacific People constitute 22% of the total population, of whom 25% identify as Tongan (Lees et al., 2021). While shared values and principles exist among Pacific People, each culture is unique and, as such, should be recognised and valued. Pacific People will be described in general; where available, Tongan-specific descriptions are made.

Pacific worldviews

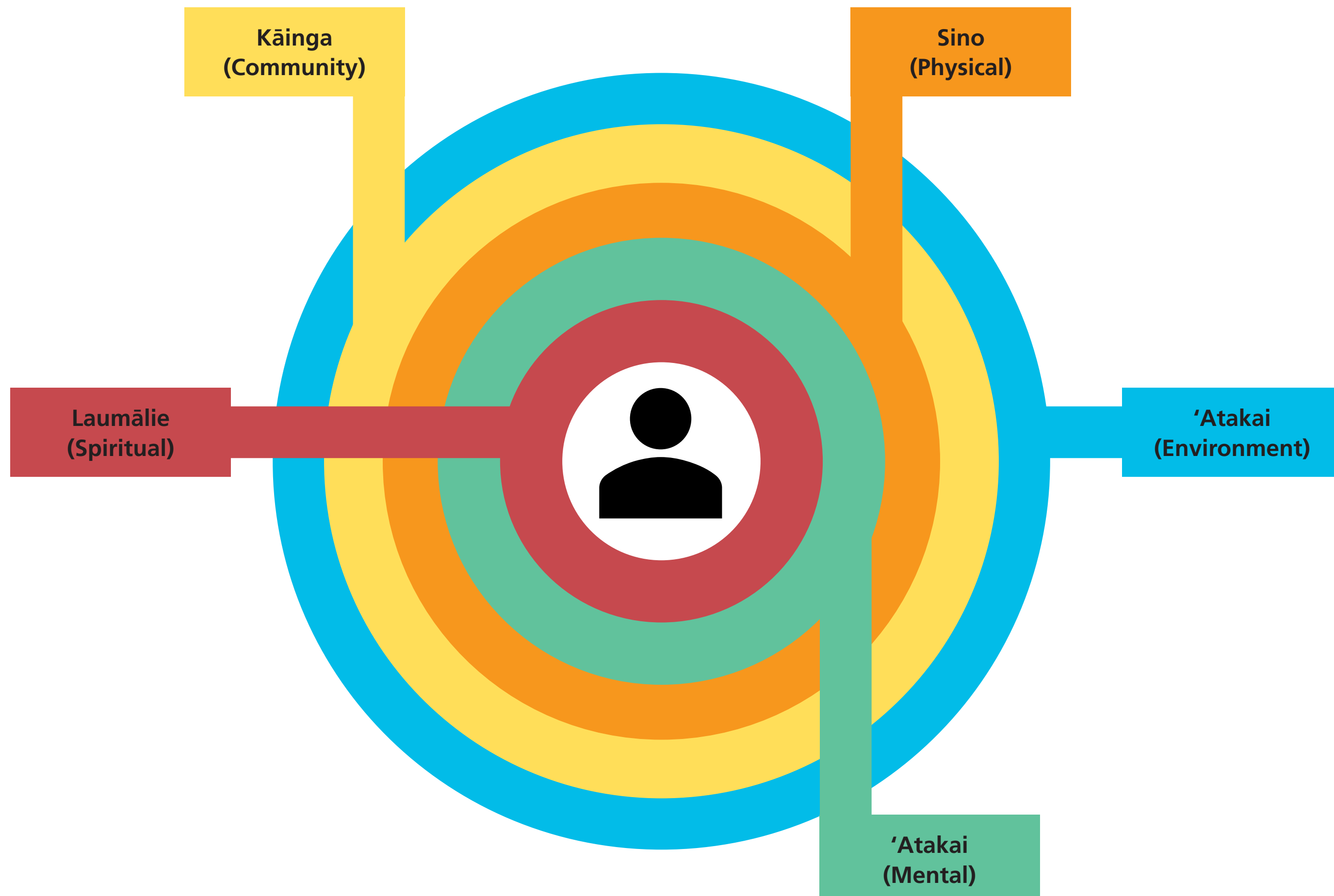
Tongan individuals have a unique worldview shaped by their profound connection to their place of origin, community, and their ancestral heritage (Ihara & Ofahengaue Vakalahi, 2011). Within this worldview, a sacredness exists of how things and people are related to each other. Relationships, for example, are shaped by social order with a shared belief in "good for all" (Fuka-Lino, 2018, p .48) rather than a focus on the individual. A positive and balanced interconnectivity between humanity and its ecology frames the Pacific view and is represented in health models such as Fonua (Figure 1). Sino (physical), ʻatamai (mental), laumālie (spiritual), kāinga (collective/community), and ʻātakai (natural and built environments) are presented as five interconnected dimensions (Tu'itahi, 2007) representing health and harmony. Values of fe'ofa'ofani (love), fetokoni'aki (reciprocity), fekaka'apa'apa'aki (respect), and fakapotopoto (wise leadership and management) collectively promote, sustain, balance, and harmonise health and wellbeing (Tu'itahi, 2007). The unique Tongan worldview shapes the discourse between Tongan and others who are not Tongan. In the health context, understanding and valuing Tongan worldviews can impact on relationships, engagement with Pālangi ("white person", typically European) health professionals/physiotherapists (Crawford & Langridge, 2022), and, by association, chronic condition management including cough.

Cultural competency and physiotherapists

Cultural competency, defined as the ability of healthcare professionals to understand, respect, and effectively respond to diverse cultural beliefs, significantly shapes how patients and clients define their health, make health choices, and engage with therapy (Physiotherapy Board of New Zealand, 2018). Insufficient cultural diversity in the health workforce

Figure 1

Fonua – Pacific Model of Wellbeing



creates potential for tensions between cultural worldviews. However, culturally competent physiotherapists, possessing an understanding of and respect for cultural nuances, have been found to contribute significantly to ensuring equitable access and positive outcomes for health consumers (Physiotherapy Board of New Zealand, 2018). Beyond providing culturally meaningful physiotherapy services to Pacific People, these professionals also play a crucial role in influencing social policy and advocating for health equity at a socio-political level. In essence, cultural competency is integral to the role of physiotherapists, and extends beyond individual patient care to effect systemic changes for the benefit of diverse health consumers.

Tongan healthcare access and utilisation

While most Pacific People have a positive perception of their health and aspire to improved health and wellbeing (Ministry for Pacific Peoples, 2018), conflicting data exists. Pacific People utilise healthcare systems differently compared to non-Pacific counterparts (Ludeke et al., 2012; Toafa et al., 2001), typically at a lower rate than others, with consequences of advanced illness upon presentation (Ministry for Pacific Peoples, 2018). For Tongan people, unique beliefs influence chronic condition management (Barnes et al., 2004; Bassett & Holt, 2002; Reed et al., 2017), including accessing traditional Tongan healers (Faito'o faka-Tonga) (Reed et al., 2017; Toafa et al., 2001), often pre-empted by a quest for symptom relief and a cure. Dissatisfaction levels with "Western" medicine, namely traditional public healthcare, were found to be related to long waiting times, short consultation times, and, at times, ineffective treatment (Bassett & Holt, 2002). Time was valued and associated with relationship building and specifically trust (Ludeke et al., 2012; Toafa et al., 2001). Relationships and holistic focus on wellbeing underpinned by Pacific values and culture were also identified as important service dimensions to positively influence health outcomes (Ministry for Pacific Peoples, 2018). Self-management is integral to chronic respiratory condition management including bronchiectasis and relies on continued engagement and review (Chang et al., 2023; Hill et al., 2019; Polverino et al., 2017). Health professionals therefore should consider how best to engage with Tongan people to influence how practice and service delivery can be more culturally responsive, promoting review and investigation for symptoms such as chronic cough.

This qualitative study aimed to explore attitudes of Tongan adults resident in Counties Manukau to chronic cough and healthcare access, as a potential precursor to diagnosis and physician and physiotherapist management.

METHODS

Ethical approval was obtained from the Health and Disability Ethics Committee (reference 19/STH/27). Approval was also granted by the Counties Manukau Research Committee (registration number 612). Informed consent was obtained from all participants prior to the talanoa (conversation). A glossary that outlines Tongan words and their English translation is provided in Appendix A.

Research team

The research team included two non-Tongan (Pālangi) researchers (SM and AU) and two Tongan researchers (LA and SV), both of whom had experience in talanoa in health. Cultural oversight ensured Tongan worldviews, voices, and practices were visible and respected throughout the research. Both Pālangi, especially, given their cultural differences to the culture under review, engaged in personal, interpersonal, and methodological reflexivity, attending closely to their research position, interpretation, and relationship to the research process, talanoa, and transcripts.

Study design

This qualitative descriptive study explored the attitudes of Tongan adults resident in Counties Manukau about cough and healthcare access. Drawing on the Tongan cultural framework, talanoa, a Pacific research specific methodology was used to generate an authentic research process in addition to co-creating knowledge from participant narratives as a method (Vaioleti, 2016).

To preserve and safe-guard Tongan talanoa, each talanoa was undertaken by a Tongan researcher who promoted and encouraged conversation while listening, observing, and interpreting both verbal and non-verbal cues; the latter considered as important as verbal language (Le Va, 2020). Being "inside" the research, as Tongan, rather than New Zealand European (outside Tongan culture), and respectful of the culture, language, and values, was important to engage with participants through shared appreciation of cultural symbolism including the fale (house) representative of the family, the location of the fala (mat) or family context, and the conversation, as "participants shared talanoa from their loto (heart/soul)" (Vaka, 2014, p.111).

Participant recruitment

Eligibility criteria required participants to be Tongan, over 18 years of age, resident in the Counties Manukau region, and have had a cough for more than three months. Participants were recruited through purposive and snowball sampling through flyers circulated through Tongan community networks. Participation and engagement was enhanced through inclusion of an ethically congruent researcher (George et al., 2014) and research promotion by Tongan colleagues to negate the many barriers of ethnic minorities in health research, including lack of information, mistrust (George et al., 2014), and English proficiency (Stanaway et al., 2017). Tongan researchers discussed the research with potential participants, answered queries, and obtained informed consent. A mutually convenient time and venue were arranged, and informed consent was again obtained prior to each talanoa, which was then digitally recorded.

Interview schedule

Initial introductions and general conversations took place to establish family, community, church, and Pacific heritage connections, aligned with values of reciprocity and respect that underpin the talanoa methodology and method (Vaioleti, 2016). Semi-structured questions in the interview guide (Appendix B) included probes about cultural values, attitudes about cough, what treatments were tried (natural/Tongan/pharmacological), who participants had received treatment from including GP/family doctor (Toketa fakafamili) or traditional healer (Faito'o faka-Tonga), and what factors influenced them in seeking

treatment from healthcare providers. Finally, participants were asked if they had been referred to a specialist for cough management and if they had received treatment from a respiratory physiotherapist.

Transcribing and translating

Six of the seven talanoa were conducted in Tongan. The talanoa was opened with introductions and lotu (prayer). This introduction involved introducing places, families, and important milestones from Tonga and New Zealand. This helped with building relationships to enhance the talanoa and invited participants to tala (tell) stories from their heart and soul (noa) (Vaka et al., 2016). All Tongan talanoa were recorded and initially transcribed verbatim, and subsequently translated into English. Tongan researchers reviewed the transcripts to ensure the English translation aligned with Tongan translation and no cultural nuances were lost or misinterpreted. Recorded talanoa were saved in keeping with ethical requirements and respectful of safe Pacific data sovereignty practices (informed consent, confidentially and privacy, and appreciation of data ownership and control).

Data collection and analysis

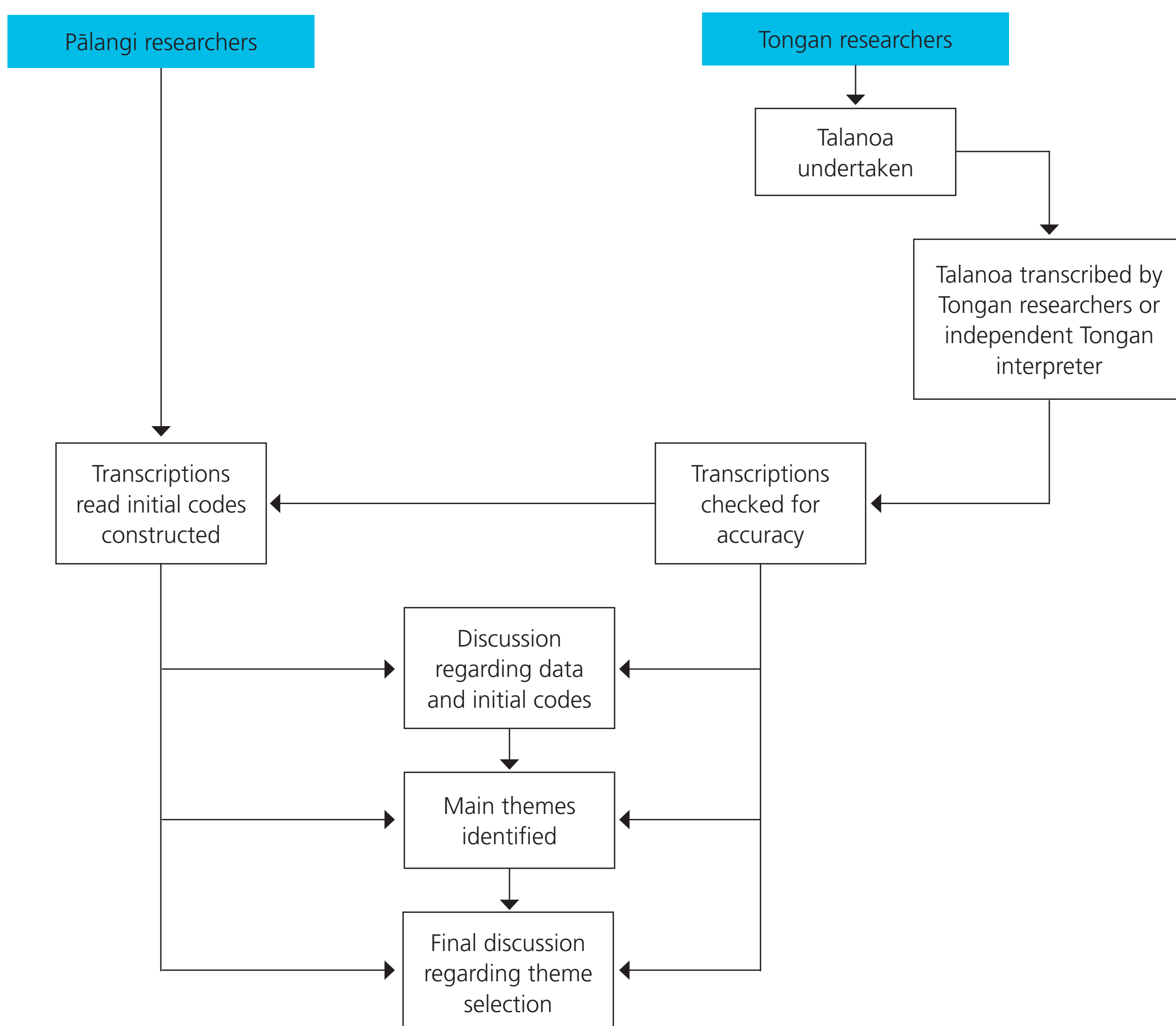
Seven talanoa were undertaken between March 2020 and February 2021 either face to face (participant's home) or by telephone. Six talanoa were undertaken in Tongan or interchangeably in English and Tongan, and one in English to accommodate participants' preference to speak in their native language (Finau et al., 2011).

Data were analysed using the six-phase thematic analysis outlined by Braun and Clarke (2020) and framed by the Fonua Model of Health, which highlights the interdependency of five life dimensions essential for harmony and health: Sino (physical), ʻAtamai (mental); Laumālie (spiritual); Kāingal (community); and ʻĀtakai (environmental) (Tu'itahi, 2007).

The roles of Pālangi and Tongan researchers in data analysis are presented in Figure 2. All researchers spent time engaging with reading and familiarisation of the transcripts. Initial coding was undertaken independently by both Pālangi researchers before a discussion to refine the codes and allow for all researchers' perspectives and insights to inform interpretation. Cultural nuances and linguistic terminologies (Faka-Tonga)

Figure 2

The Roles of Tongan and Pālangi Researchers in Data Analysis



that emerged from the analysis process were discussed by the research team. For example, while participants described the "cold", fu'u momoko (penetrating coldness) was not explicitly described; therefore, "cold" was retained in the final analysis. Miro Softwear© 2021 (https://miro.com/) was used to visualise codes and allowed researchers to collaborate digitally. These codes were organised into bigger and more meaningful groups to form themes. Candidate themes were compared and revised independently by researchers and finalised following group discussions.

RESULTS

Five interviews were conducted with women and two with men (average age 64 years, range 23–75 years) (Table 1). Participants' cough history ranged from three months to 24 years. Only one person had been admitted to hospital due to compromised respiratory health and two of the seven participants disclosed history of respiratory conditions, for example, bronchiectasis and asthma. Three participants did not visit their family doctor regarding their cough in the last year; one person was under the care of a respiratory team. Three people had experience of respiratory physiotherapy.

Three key themes were constructed that represented disruption to dimensions of the Fonua Model of Health and imbalance between the interconnectivity of life's dimensions: (1) "feeling the cold" and the "warmth of remedies"; (2) the multidimensional impact of cough and action/inaction taken; and (3) discrepancies between understanding and accessing cough care.

"Feeling the cold" and the "warmth of remedies"

The "cold" featured as a dominant theme in terms of temperature difference between Tonga and Aotearoa New Zealand, the temperature of their homes and between seasons, and their bodily temperature. All seven participants described the cold as being a cause of their cough or aggravating their cough. When Participant 3 (female, 77 years) was asked where she thought her cough came from, she explained:

> It's the cold, from being cold, from not having warm clothes especially around my neck … When I feel shivery or real cold I start to really cough … The biggest thing for me is to always make sure that I am warm and wearing warm clothes.

This connection between "cold", i.e., cold exposure and cough, aligns with the Sino dimension in the Fonua health model, where the physical environment (cold weather) has a direct impact on the participants' physical health (cough). Conversely, keeping warm and being "warm" through dressing and heating rooms at home were synonymous with improved health and wellbeing. Warm climate was also associated with health and happiness and was in contrast to the cold climate of Aotearoa New Zealand as described by Participant 1 (female, 68 years):

> It [cough] is because of the cold weather/or when I'm cold because this is a cold country. We came from Tonga, which was a warmer climate. When I travel to Tonga I never cough over there in Tonga, so I really think it's because of the colder climate/weather [here].

Participants found warmth-generating remedies effective in counteracting the cold. These remedies were perceived as providing immediate physical warmth and were used to gauge treatment efficacy. Remedies included ginger drinks, honey and lemon, steam therapy with lemon leaves, rum and coke, and Tongan oil (Lolo Tonga) made from coconut oil infused with a variety of flowers and plants including Ylang Ylang (mohokoi) and red ginger leaves (tevunga) and applied to the chest or body.

The multidimensional impact of cough and action/inaction taken

Cough was described negatively in various dimensions, encompassing physical, mental, spiritual, and social aspects

Table 1

Participant Details

Participant	Sex	Age (years)	Interview language	Interview location	Cough history	Healthcare utilisation
1	F	68	Tongan	Home	Several years	GP, respiratory specialist
2	M	70	Tongan	Home	"Since getting old"	GP
3	F	77	Tongan	Home	4 years	GP
4	F	23	English	Phone	"Whole life"	Hospital team during two admissions, GP, respiratory specialist, respiratory physiotherapist
5	F	70	Tongan	Phone	5 years	GP
6	M	75	Tongan	Home	5 years	GP, respiratory specialist, respiratory physiotherapist
7	F	64	Tongan	Home	6 years	GP, respiratory specialist, respiratory physiotherapist

Note. F = female; GP = general practitioner; M = male.

of their wellbeing. Sino (physical): cough was associated with tangible symptoms such as coughing up blood, which intensified negative emotions like manavasií (fear) and anxiety. ʻAtamai (mental wellbeing): participants spoke of fakamaaí (embarrassment) and described the experience as ikai makataki'i (unbearable). Laumālie (spiritual): the negative impact of cough extended to the holistic wellbeing of the individual. For example, for Participant 2, coughing interrupted their sleep, which affected their overall quality of life: "The only time I don't like coughing is when I go to sleep" (male, 70 years). Furthermore, the negative effects of cough reached beyond the individual to influence Kāinga (family and community). Participants described their coughing episodes as disrupting their ability to actively engage in community life, impacting on social gatherings and participation in public spaces. Participant 5 (female, 70 years), in particular, highlighted the social impact of cough, expressing a preference for staying home to avoid public coughing episodes during family gatherings:

> Like when we have a family gathering, I don't want to go in case I have a coughing fit and disturb people, so I just want to stay here, at times like this … It's better to stay [home] than having to constantly get up in public to go and cough.

Remedies were described by four participants as a means of managing cough, reducing or eliminating cough and delaying attendance at the family doctor. Remedies were trialled and perceived as a first-line treatment irrespective of the cough duration. Tongan remedies included the use of Tongan oil (Lolo Tonga) especially when cold, and distilling Tongan plants and drinking the infused liquid. Differing attitudes and beliefs represented a continuum from ''if there was a Tongan medicine, I'd be better" (Participant 7, female, 64 years), suggesting a strong belief in the efficacy and trust in Tongan remedies. In contrast, Participant 2 firmly stated "no Tongan medicine" (Participant 2, male, 70 years), indicating a strong personal view for other therapies and medications. Participant 1 (female, 68 years) expressed openness to using Tongan and traditionally prescribed medications for cough as both were perceived as beneficial:

> I believe that everything is good and think that with the Pālangi medication it's fast and heals quickly whereas with the Tongan medicine it works slowly but will eventually do the same healing as the medication given from the doctors … The great thing about the Tongan medicine is that there is no added chemicals in the medicine, it's all plant based and you can consume all you want but still be good for your body, whereas the Pālangi medication, there are times it becomes problematic to our stomach and bodies.

Two of the seven participants commented on the importance of other people's opinions. Participants both listened to and trialled many recommendations from family members and friends as described by Participant 5 (female, 70 years):

> Someone would tell me they got better with this, I'd try it, someone else would say they got better with that and I'd try it. It's our way, when we look at it, from Tongan people, we think highly of people's opinions.

While Tongan remedies were considered less scientific and taking longer to take effect, they were perceived as more natural and with a holistic effect on cough and health. One participant discussed how Western medication was used for short-term symptom relief. There was disappointment that Western medication didn't "fix" or "cure" their cough, and concern over unwanted side-effects. One participant described being "given tablets for cough – a lot of tablets" (Participant 6, male, 75 years) to manage their cough and that they had tried "every type of cough mixture from the pharmacy" (Participant 5, female, 70 years). Medication adherence was also variable and was only taken when required, suggesting that participants self-determined when their health was compromised and required action.

Discrepancies between understanding and accessing cough care

All participants described accessing a GP/family doctor for cough management. Tongan healers (faito'o faka-Tonga) were rarely accessed; two of the seven participants described accessing a Tongan healer with one participant accessing the healer when they resided in Tonga. Three participants did not know how to access a Tongan healer and one participant expressed a preference for attending their GP over a Tongan healer.

Credibility of doctors trained in a "developed" country was aligned with increased knowledge, equipment, and research, and, by association, fast diagnoses were made and treatments instigated. Trust and respect were described as key to a shared investment in participants' health. Yet, at times, sessions were described as rushed with awareness of the doctor's large caseload. Several participants described a unique relationship with their GP as the "only one I trust", with a relationship developed over several years. Genuine care for participants and empathic listening were recognised as important bonds in the patient/doctor relationship and the inter-generational relationship with their family doctor (toketā faka-fāmili). Participant 1 (female, 68 years) explains why she and her family see their current Pālangi family doctor:

> He's been a doctor for a very longtime serving in the community … He is familiar with me and the history of my health from the beginning up to now and I believe that it's fair to stay with him … He is always smiling and very caring.

None of the seven participants attended a Tongan doctor. There was a preference expressed for attending a doctor of their birthplace for reasons including a shared understanding of "the Tongan way". This was expressed in terms of communication by Participant 1 (female, 68 years) namely through the "use of stories/illustrations" and to explain "tell it how it is" (Participant 3, female, 77 years). Cultural sensitivity in relation to finances (pa'anga) was also appreciated, which inferred less embarrassment in asking for payments to be paid in instalments.

> …whereas the Tongan doctor, we would be able to ask for help with regards to payment, I would ask if I can make part payments in order for my family member to see the doctor because that is the island way. (Participant 1, female, 68 years)

Shared language and culture were also described as facilitating a reciprocal relationship, creating an important connectivity, relative to the participant's health and cough management. This connection is described by Participant 1 (female, 68 years) and how this impacted medication adherence:

> (Tongan doctors) they tell you the truth straight up and that they stress the importance of why the medication is important to take. Whereas the Pālangi doctor, you don't tell him your lifestyle, what you do in your spare time, no, you just go to them and just tell them what they want to hear and leave out other important things.

In contrast to attending GPs, two participants described care provided by respiratory specialists. Specialist care was viewed positively and associated with tests, for example, lung function tests, "specialist tests", and different treatments such as using equipment. The role of respiratory physiotherapy was less clear. Three participants who had experience of respiratory physiotherapy described associations between physiotherapy and their lung health, using equipment and breathing exercises. Participant 3 (female, 77 years) described receiving equipment related to "breathing": "she gives me equipment … the things to use to breathe in". This contrasts with the equipment purpose, i.e., airway clearance techniques. In general, physiotherapy was associated with musculoskeletal injury and rehabilitation, as described by Participant 5 (female, 70 years): "I don't really know (what the role of physiotherapy is). I thought they're the person you go and see for exercising, no?".

DISCUSSION

This qualitative study explored New Zealand Tongan residents' attitudes to cough and access to healthcare. Emergent themes represented a disconnect between the five dimensions of health in the Fonua health model. Cough was symbolic of an imbalance between the sino (physical), and 'ātakai (environment), which then impacted on the other dimensions of health in the Fonua model: emotional, spiritual, and community.

Cough was perceived as a complex issue with multidimensional causes, strongly tied to the environment, particularly the ātakai. Living back in Tonga was associated with a healthier, simpler lifestyle, linked to warmth (māfana) and happier times (Faletau et al., 2020). Māfana (warmth), for example, is referred to in cultural dance performances and spiritual activities as a state of elation, joy, excitement, and much satisfaction (Johansson-Fua, 2023). In contrast, Aotearoa New Zealand was described as "cold", both physically and environmentally, contributing to housing issues like cold, dampness, and mould that are more prevalent among non-owner-occupiers. These housing conditions are recognised factors impacting health vulnerability (Camaira & Mafile'o, 2019) and, specifically, respiratory health (Telfar Barnard & Zhang, 2021). Notably, Pacific People, including Tongan, face challenges in housing quality and affordability, creating vulnerabilities. Encouragingly, recent government initiatives that retrofit insulation into existing homes have shown improvements in respiratory health outcomes for Pacific populations (Fyfe, 2021), highlighting the importance of health professionals including physiotherapists advocating for such policies and funding to improve health equity and outcomes.

The study also shed light on the perceptions of individuals living with cough from a healthcare perspective. Cough was associated with stigma and was found to impact various dimensions of an individual's quality of life, including laumālie (spirituality). This both impacted on participants' ability to attend church and social gatherings. While healthcare communication often adheres to the biomedical model, focusing on anatomy, physiology, and pathophysiology (Thornquist, 1997), findings from this study emphasised the need for incorporating cultural and spiritual aspects into care models as previously recognised as beneficial for this community (Vaka et al., 2022). Health professionals, particularly those outside the Pacific community, should aim to understand what "wellbeing" means to different cultures, enabling better engagement in managing not only cough but also chronic conditions.

Building rapport and good communication were deemed vital by participants to establish rapport and relationships with health professionals and were also described as fundamental, given their influence on patient experiences and high-quality health services (Ministry of Health, 2022). Unrushed appointments and time to welcome and get to know people were valued and set the scene to further discuss cough and cough management. However, challenges existed due to high caseloads, affecting patient satisfaction. For people living in Counties Manukau, access was further challenged by a disproportionally smaller serviced population by primary care (Medical Council of New Zealand, 2021). Addressing these challenges requires not only individual health professionals' efforts but also broader service and policy reviews. Study findings highlight the concerning rates of unmet care needs among Pacific People in New Zealand as seen in the New Zealand Health Survey (Ministry of Health, 2022), indicating the need for improved access, especially for those with cough. In addition, health professionals are challenged to be active in advocating for health and social policy reform, and addressing population health determinants is crucial for promoting equitable respiratory outcomes as outlined by Heaps (2023).

The global burden of chronic cough in general populations is recognised (Song et al., 2015) with cough of any duration being the most prevalent presenting symptom in primary care (Achilleos, 2016). When cough was present in participants' lives, it was tolerated; medical advice was not always sought. In a study of Italian adults with cough, Dal Negro et al. (2016) found that cough was considered a "disease" that warranted a "cure". Tongan participants in this study also sought a cure. The disjuncture between expectations of cough "cures" and chronic cough management were evident. The former represents a one-off, cost effective "cure"; the latter requires engagement and attendance at multiple appointments to initiate a chronic cough pathway (Morice et al., 2020) and access specialist care. Current health models put the onus on individuals to fund appointments with primary care, essential for future referral and access to specialist care. Access to appointments including investigations continues to be limited by transport issues and specifically petrol costs. Unmet health needs were found to relate to cost (Ministry of Health, 2022), indicating that current funding models do not support the most vulnerable populations in accessing healthcare. It is not surprising therefore that

ambulatory sensitive hospitalisation rates for Pacific People are higher compared with the rest of the population (Ministry of Health, 2022). Hospitalisation rates for respiratory disease are also disproportionate for Pacific adults and children compared to other ethnic groups (Bibby et al., 2015), suggesting that chronic respiratory conditions are sub-optimally managed. The current health systems, left unchanged, will continue to neglect the health needs of Pacific People.

Lack of improvement in cough impacted on continued engagement with health professionals. In contrast to medicines, Tongan remedies were more readily available, commonly sourced from plants and trees and grown locally. These provided temporary relief that could be accessed at any time and hence cost was minimal in comparison and was readily shared. The longer-term and natural Tongan remedies were perceived as more holistic, promoting a background wellness. This contrasted with medicines perceived to "cure" cough. Prescriptions costs continue to deter collection by Pacific People (Ministry of Heath, 2022); however, recent policy changes (i.e., free prescription charges) may redress this balance in terms of access to medicines.

Little is known about Tongan traditional healers in Counties Manukau. Indeed, concern has been raised by Tongan traditional healers in Aotearoa New Zealand regarding their role by western health professionals (Toafa et al., 2001). In this study, only two of the seven participants engaged with Tongan healers. There is an increased need to better understand the role of other complementary health providers such as Tongan traditional healers to ensure therapies that may be received complement advice rather than conflict with it.

The role of respiratory physiotherapy was unclear to all participants, including three of the seven participants who experienced respiratory physiotherapy. Physiotherapy was associated with musculoskeletal injury and rehabilitation. This mirrors findings in a survey of New Zealand public awareness whereby sports injuries and bad posture issues were considered core areas of physiotherapy (Physiotherapy New Zealand, 2021). Of the 437 respondents, only 1% self-reported as Samoan, suggesting the survey did not capture the unique views of the wider Pacific population. Interestingly, 91% of the 437 respondents indicated they would seek advice from a doctor regarding "feeling breathless/asthma" compared with physiotherapists (3%) (Physiotherapy New Zealand, 2021) highlighting a paucity in the public's understanding of the role of respiratory physiotherapy. The inequity of respiratory services in Aotearoa New Zealand continues to exist. Only 10 District Health Boards (DHBs) employed dedicated respiratory physiotherapists, with "generalist" physiotherapists employed by other DHBs including three large DHBs (Meyer et al., 2022). Marketing strategies to date have not increased the role and scope of respiratory physiotherapists. Wider and more inclusive marketing would not only extend the understanding and value of respiratory physiotherapy but may also empower people with cough to seek treatment.

Pacific People remain underrepresented in the health workforce. Pacific physiotherapists constitute 1% of the physiotherapy workforce compared with 50% New Zealand European (Physiotherapy Board of New Zealand, 2022). The lack of cultural diversity in the health workforce creates opportunities for clashes of cultural world views. Similarly, intergenerational clashes may be evident between young workforces such as physiotherapy with over half of physiotherapists who held a practicing certificate in 2021/22 aged under 44 years (Physiotherapy Board of New Zealand, 2022), and a growing, aging population from cultures such as Tongan, in which elders are valued and afforded faka'apa'apa (respect) (Havea & Alefaio-Tugia, 2018). Elders in the Pacific community are recognised for their important role in the family and community, yet their ability to fulfil their responsibility of linking the past, present and future of families and communities is compromised when their health and wellness is at risk (Ihara & Ofahengaue Vakalahi, 2011). In this study, participants with an average of 64 years spoke of how their health was impacted in relation to cough, with two of seven participants diagnosed with respiratory illnesses. The growth and maturation of Pacific healthcare workforce is therefore essential. In the interim, cultural support workers and advisors can enable non-Tongan health staff to mediate between two potentially different world views and are therefore essential in the tripartite relationship. These essential services, where they exist, are commonly overloaded and under-resourced (Ministry for Pacific Peoples, 2021). Financial support to fund cultural services lies with organisations to ensure the health as well as cultural needs of their population are effectively met.

Pacific People's culture is unique and distinguishes them from other groups in Aotearoa New Zealand. The Fonua health model provides Pacific as well as non-Pacific healthcare professionals and service providers with an understanding of what is important for Tongan people. The Pacific Wellbeing Outcomes Framework (Ministry for Pacific Peoples, 2022) also provides an integrated picture of the needs of Pacific communities, what is perceived by the communities as important to their wellbeing, and captures strategies and plans for the government to improve their outcomes, informed by Pacific for Pacific communities. Lalaga potu (Pacific values and principles), fale fono (partnership and governance), vaka moana (performance and improvement), and te kupega (capability) are four interconnected focus areas that inform the Pacific Wellbeing Strategy (Ministry for Pacific Peoples, 2022). It is the responsibility of the Government to not only listen to the voices of Pacific People but also to ensure strategies are enacted. For health professionals as individuals and professions, it is important to not only ensure they are culturally competent, but also to advocate for under-represented populations, social policy, and health reform. This advocacy is crucial so that, for example, social determinants that influence cough can be addressed, and people with cough can better access health care including respiratory physiotherapy.

Strengths and limitations

Strengths included a unique collaboration of Tongan and Pālangi researchers who mirrored the mutual reciprocity and respect afforded to study participants. Cultural governance was provided by two experienced Tongan researchers (LA and SV) who contributed to all aspects of the study including working with SM and AU as Pālangi researchers.

This study was framed by the philosophies of talanoa research methodology and method led by Tongan researchers. This strength allowed for participants to experience an authentic talanoa that would be culturally safe and relevant to them. However, both researchers were male and significantly younger than the majority of participants, who were older women. This dynamic could have been a barrier to allowing researchers to probe deeper during the talanoa due to perceived lack of respect. Lack of participant diversity in age and gender also requires consideration, as older Tongan women may have more traditional views than other members of the Tongan community.

Data collection occured over the COVID-19 pandemic throughout non-lockdown periods. Cough is a common symptom of COVID-19 with associated stigma (World Health Organization, 2020). This may have inhibited discussion and open dialogue about cough, and impacted on participant recruitment.

CONCLUSION

In conclusion, the impact of cough extended across the interconnected dimensions of the Fonua health model, perpetuating imbalances that could affect health journeys. Access, engagement, and quality of experiences were pivotal in managing cough, influenced by trust and rapport with health professionals. This study emphasised the need for better understanding of cultural nuances by healthcare providers and the importance of integrating Pacific health models. Findings also highlighted the need for advocating for policy changes, addressing social determinants, and increasing awareness about cough management. Ultimately, collaborative efforts are crucial to harmonising health dimensions and improving the health and wellbeing of Pacific People, including Tongan, living in New Zealand.

KEY POINTS

1. Cough was seen as an imbalance between the physical body and the environment, and largely managed with remedies.
2. Cough impacted on quality of life by affecting other dimensions of health, particularly in social situations.
3. Tongan people may have difficulty initiating chronic cough pathways due to perceived need to tolerate and barriers to accessing primary healthcare services.
4. Limited understanding of the role of healthcare professionals (including respiratory physiotherapist) exists in the management of chronic cough.

DISCLOSURES

Funding was received from the Physiotherapy New Zealand Scholarship Trust. No conflicts of interest exist that may be perceived to interfere with or bias this study.

PERMISSIONS

Ethical approval was obtained from the Health and Disability Ethics Committee (reference 19/STH/27). Approval was also obtained from the Health New Zealand Te Whatu Ora Counties Manukau Research Committee (research registration number 612).

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CONTRIBUTIONS OF AUTHORS

SM and AU conceived the study and study design. LA worked on the design concept and initial Talanoa, and SV on the remaining Talanoa and data analysis. LA and SV provided cultural oversight and guidance. SM and AU undertook data analysis and wrote the initial manuscript draft. All authors contributed to the revisions and approved the final manuscript draft submission.

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APPENDIX A

GLOSSARY OF TONGAN WORDS AND ENGLISH TRANSLATION

Tongan word	English translation
'Ātakai	Natural and built environments
'Atamai	Mental wellbeing
Fakamaaí	Embarrassment
Fakapotopoto	Wise leadership and management
Fakatonga	Tongan language terms
Fekaka'apa'apa'aki	Respect
Fe'ofa'ofani	Love
Fetokoni'aki	Reciprocity
Ikai makataki'i	Unbearable
Kāinga	Collective/community
Laumālie	Spiritual wellbeing
Lolo Tonga	Tongan oil made from coconut oil infused with a variety of flowers and plants
Manavasií	Fear
Momoko	Deep penetrating cold
Pa'anga	Finances/money
Sino	Physical wellbeing
Toketa faka-famili	GP/family doctor

Note. Translations acquired from: https://tradukka.com/translate/to/en/fakatonga.

APPENDIX B

INTERVIEW SCHEDULE

Cough parameters. Tell me about…

- How long have you had a cough?
- What do you think causes your cough?
- How does it affect you?
- Does it worry you?
- What does health mean to you?

Treatments (natural/Tongan/medication/etc.). Tell me about…

- What treatments have you tried? Why?

Initial treatment provider. Tell me about…

- Who have you seen about your cough?
- Why did you see them?
- What was your experience?
  - What information or tests did you receive/undertake?
  - What treatment did you receive?
  - Were you satisfied with treatment received?
  - If appropriate, did you tell them that you had seen a Tongan healer?
- What stopped you from seeing them earlier?
- Did you attend again for a follow up? If no, why? If yes, why?
- Would you see a Tongan healer in preference to your family doctor? Why?
  - What methods of healing did they use?
- Is your family doctor Tongan?
- Do you take any Tongan medicines?

Follow up treatment provider. Tell me about…

- Have you seen a specialist doctor, physiotherapist or health practitioner at Manukau Super Clinic?
- What was your experience?
  - What information or tests did you receive/undertake?
  - What treatment did you receive?
  - Were you satisfied with treatment received?
  - Did you attend again for a follow up? If no, why? If yes, why?
  - If appropriate, did you tell them that you had seen a Tongan healer or taken Tongan medicine?
- Did you continue to attend? If so/not … why?
- Could anything be changed to make your experience more positive?
- If you had a family member with a cough…
  - Who would you recommend they see? And why?